



Vulcan Energy Resources Limited

(Registered in Australia under the Corporations Act 2001 (Cth))

21,400,000 Shares

This private placement (the "**Private Placement**") relates to the placement and sale of 21,400,000 newly issued ordinary shares from a capital increase against cash contributions (the "**Placement Capital Increase**") resolved by the board of directors (the "**Board of Directors**" and its members the "**Directors**") of Vulcan Energy Resources Limited (the "**Company**" and, together with its consolidated subsidiaries, the "**Vulcan Group**") on May 3, 2023 (the "**New Shares**").

The Private Placement consists of private placements in certain jurisdictions including the Federal Republic of Germany ("**Germany**"). In the United States of America (the "**United States**"), the New Shares will be offered and sold only to qualified institutional buyers ("**QIBs**") as defined in, and in reliance on, Rule 144A under the US Securities Act of 1933, as amended (the "**US Securities Act**"), and institutional "accredited investors" ("**Institutional Accredited Investors**") as defined in Rule 501(a)(1), (2), (3) or (7) under the US Securities Act, in each case pursuant to an exemption from the registration requirements of the US Securities Act. Outside the United States, the New Shares will be offered and sold only in "offshore transactions" as defined in, and in compliance with, Regulation S under the US Securities Act. This international supplement and the attached draft prospectus (the "**Prospectus**") (collectively, the "**Offering Circular**") relate to the Private Placement of the New Shares to institutional investors in Germany, the United States and other jurisdictions. The Prospectus, which is in draft form, is expected to be approved by the German Federal Financial Supervisory Authority (*Bundesanstalt für Finanzdienstleistungsaufsicht* – "**BaFin**") on or around May 4, 2023. Prior to such approval, the information in the Prospectus is subject to updating, completion and amendment. In particular, the Prospectus refers to certain events (including in relation to the Private Placement) as having occurred which have not occurred but which are expected to occur prior to approval and publication of the Prospectus. Additionally, the German Summary section and certain references to the Listing Agent have been removed from the draft version of the Prospectus attached to this international supplement.

The Company is admitted to the official list of ASX Limited ("**ASX**") and its existing ordinary shares (the "**Existing Shares**" and, together with the New Shares, the "**Shares**") are quoted on the securities exchange operated by ASX under the ticker code "VUL". In addition, the Company's Existing Shares are quoted on the regulated market segment (*Regulierter Markt*) of the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*) (the "**FSE**") with simultaneous admission to the sub-segment of the regulated market with additional post-admission obligations (Prime Standard) where they also trade under the ticker symbol "VUL". The New Shares are expected to be admitted to trading on the FSE with simultaneous admission to the sub-segment of the regulated market with additional post-admission obligations (Prime Standard) without a public offering of Shares in Germany, Australia or any other jurisdiction. Trading of the New Shares is expected to commence on the FSE and ASX on or about May 15, 2023.

Information on the Company's website and any other websites mentioned herein is not part of this Offering Circular.

Investing in the Company's Shares involves risks. Prospective investors should read the entirety of this document and, in particular, see the section entitled "1. Risk Factors" beginning on page 1 of the attached Prospectus and the section entitled "Additional Risk Factors Relevant to International Investors" in this international supplement when considering an investment in the Company.

Placement Price: EUR 3.08 and A\$ 5.10 per New Share

The New Shares have not been and will not be registered under the US Securities Act or with any regulatory authority of any state or other jurisdiction of the United States and are being offered and sold (i) in the United States only to QIBs or Institutional Accredited Investors, in each case pursuant to an exemption from the registration requirements of the US Securities Act, and (ii) outside the United States in reliance on Regulation S under the US Securities Act. Prospective investors are hereby notified that sellers of the New Shares may be relying on the exemption from the provisions of Section 5 of the US Securities Act provided by Rule 144A under the US Securities Act. Purchasers of New Shares in the United States will be subject to the transfer restrictions described below under "*Notice to Investors in the United States*".

Merrill Lynch Equities (Australia) Limited ("**BofA Securities**") and Canaccord Genuity (Australia) Limited ("**Canaccord Genuity**") (together, the "**Underwriters**") are underwriting the New Shares. Canaccord Genuity is acting as Global Coordinator to the Private Placement. The Underwriters expect that settlement of the New Shares against payment of the Placement Price per New Share will take place in the manner described below under the heading "*Delivery and Settlement*".

Joint Bookrunner

BofA Securities

Joint Bookrunner

Canaccord Genuity

The date of this Offering Circular is May 3, 2023.

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OFFERING CIRCULAR

No action has been or will be taken by the Company or the Underwriters or the Listing Agent or their respective affiliates or representatives in any jurisdiction, which action would permit a public offering of the New Shares, or the possession, circulation or distribution of this Offering Circular or any other material relating to the Company or the New Shares, in any jurisdiction where further action for that purpose is required.

This Offering Circular is confidential and does not constitute an offer to sell, or the solicitation of an offer to buy, any security other than the New Shares offered hereby, and does not constitute an offer to sell, or the solicitation of an offer to buy, any New Shares offered hereby to any person in any jurisdiction in which it is unlawful to make any such offer or solicitation to such person.

This Offering Circular is being furnished by the Company in connection with an offering exempt from registration under the US Securities Act, solely for the purpose of enabling prospective investors to consider the purchase of New Shares described herein. Reproduction and distribution of this Offering Circular or disclosure or use of the information contained herein for any purpose other than considering an investment in New Shares is prohibited. The information contained in this Offering Circular has been provided by the Company and the other sources identified herein.

The Company accepts sole responsibility for the information, including the completeness and accuracy of such information, contained in this Offering Circular. No representation or warranty, express or implied, is made by the Underwriters nor BofA Securities Europe SA (the "**Listing Agent**") nor by their respective affiliates or representatives, as to the accuracy, completeness, verification or correctness of the information contained in this Offering Circular, and nothing in this Offering Circular is, or shall be relied upon as, a promise or representation by the Underwriters, the Listing Agent or their respective affiliates or representatives in this respect, whether as to the past or the future. The Underwriters, the Listing Agent and their respective affiliates and representatives assume no responsibility for the accuracy, completeness, verification or correctness of this Offering Circular and, accordingly, disclaim, to the fullest extent permitted by applicable law, any and all liability whether arising in tort, contract or otherwise which the Underwriters, the Listing Agent and their respective affiliates and representatives might otherwise be found to have in respect of this Offering Circular or any such statement.

No person has been authorized to give any information or make any representation not contained in this Offering Circular in connection with the Private Placement and, if given or made, any such information or representation should not be relied upon as having been authorized by the Company or the Underwriters or the Listing Agent or their respective affiliates or representatives. Each offeree of the New Shares, by accepting delivery of this Offering Circular, agrees to the foregoing.

Neither the delivery of this Offering Circular nor any sale made hereunder shall under any circumstances imply that there has been no change in the Company's affairs or that the information set forth in this Offering Circular is correct as of any date subsequent to the earlier of the date hereof and any earlier specified date with respect to such information.

Neither the Company nor the Underwriters nor the Listing Agent nor any of their respective affiliates or representatives make any representations to any offeree or purchaser of New Shares regarding the legality of an investment in New Shares by such offeree or purchaser under the laws applicable to such offeree or purchaser. Prospective investors should not construe anything in this Offering Circular as legal, business or tax advice. Each prospective investor should consult its own advisors as needed to make its investment decision and to determine whether it is legally permitted to hold New Shares under applicable investment or similar laws or regulations. Prospective investors should be aware that they may be required to bear the financial risks of an investment in New Shares for an indefinite period of time.

THE NEW SHARES OFFERED HEREBY HAVE NOT BEEN RECOMMENDED BY ANY US FEDERAL OR STATE SECURITIES COMMISSION OR REGULATORY AUTHORITY. FURTHERMORE, THE FOREGOING AUTHORITIES HAVE NEITHER PASSED UPON THE MERITS OF THE PRIVATE PLACEMENT, NOR CONFIRMED THE ACCURACY OR DETERMINED THE ADEQUACY OF THIS OFFERING CIRCULAR. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE IN THE UNITED STATES.

In making an investment decision, prospective investors must rely on their own examination, analysis and inquiry of the Company and the terms of this Private Placement, including the merits and risks involved. Any decision to purchase New Shares should be based solely on this Offering Circular.

In certain jurisdictions, the distribution of this Offering Circular and the offer and sale of New Shares to which it relates may be restricted by law. Persons into whose possession this Offering Circular comes are required by the Company and the Underwriters to inform themselves about and to observe any such restrictions. Any failure to comply with these restrictions may constitute a violation of the securities laws of any such jurisdiction. For a further description of certain restrictions on the offering of New Shares to QIBs and Institutional Accredited Investors in the United States in reliance on an exemption from the registration requirements of the US Securities Act, see "*Notice to Investors in the United States.*"

This Offering Circular does not constitute an offer of, or an invitation to purchase, any New Shares in any jurisdiction in which such offer or invitation would be unlawful. Neither the Company nor the Underwriters nor the Listing Agent nor their respective affiliates or representatives accept any legal responsibility for any violation by any person, whether or not a prospective investor, of any of the restrictions set forth herein.

The Underwriters are acting exclusively for the Company and no one else in connection with this Private Placement. The Underwriters will not regard any other person (whether or not a recipient of this Offering Circular) as a respective client in relation to this Private Placement and will not be responsible to anyone other than the Company for providing the protections afforded to their respective clients or for giving advice in relation to this Private Placement or any transaction or arrangement referred to herein.

The Listing Agent is acting exclusively for the Company and no one else in connection with the Listing (as defined below). The Listing Agent will not regard any other person (whether or not a recipient of this document) as its client in relation to the Listing and will not be responsible to anyone other than the Company for providing the protections afforded to its clients nor for giving advice in relation to the Listing or any transaction or arrangement referred to herein.

In connection with this Private Placement, and to the extent permitted by applicable laws and regulations, the Underwriters and any of their respective affiliates may take up a portion of the New Shares in the Private Placement as a principal position and in that capacity may retain, purchase or sell for their own account such securities and any New Shares or related investments and may offer or sell such New Shares or other investments otherwise than in connection with the Private Placement. Accordingly, references in this Offering Circular to New Shares being offered or placed should be read as including any offering or placement of New Shares to the Underwriters or any of their respective affiliates acting in such capacity. In addition, the Underwriters or any of their respective affiliates may enter into financing arrangements (including swaps, warrants or contracts for differences) with investors in connection with which the Underwriters or their respective affiliates may from time to time acquire, hold or dispose of New Shares. The Underwriters do not intend to disclose the extent of any such investments or transactions, other than in accordance with any legal or regulatory obligation to do so.

You hereby acknowledge that:

1. you have not relied on the Underwriters or the Listing Agent or any of their respective affiliates or representatives in connection with any investigation of the accuracy of any information contained in this Offering Circular or your investment decision;
2. you have relied only on the information contained in this Offering Circular; and
3. no person has been authorized to give any information or to make any representation concerning the Company, its affiliates or the New Shares (other than as contained in this Offering Circular) and, if given or made, any such other information or representation should not be relied upon as having been authorized by the Company or the Underwriters or the Listing Agent.

This Offering Circular comprises an international private placement supplement and the Prospectus relating to the admission of the New Shares to trading on the regulated market (*regulierter Markt*) of the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*) with simultaneous admission to the sub-segment of the regulated market with additional post-admission obligations (Prime Standard) (the "**Listing**"). Capitalized terms used but not otherwise defined in this Offering Circular shall have the meaning ascribed to them in the Prospectus.

THE PRIVATE PLACEMENT

The paragraphs below provide additional information on the principal terms of the Private Placement. The paragraphs below should be read together with the information in the Prospectus, including "*1. Summary of this Prospectus*" and "*2.5 Background to the Private Placement*" and "*3 Information about the Shares.*"

Subject Matter of the Private Placement	<p>This Private Placement relates to the placement and sale of 21,400,000 New Shares.</p> <p>The Private Placement is exclusively addressed to qualified investors and fewer than 150 non-qualified investors in any member state of the EEA, including in Germany, or the United Kingdom and to institutional investors in certain other jurisdictions. The New Shares have not been and will not be registered under the US Securities Act, or the securities laws of any state or other jurisdiction of the United States and may not be offered, sold or otherwise transferred within the United States, except pursuant to an exemption from, or in a transaction not subject to, the registration requirements of the US Securities Act and in compliance with any applicable securities laws of any state or other jurisdiction in the United States. For US securities law purposes the New Shares offered or sold outside the United States will only be offered or sold in "offshore transactions" as defined in, and in reliance on, Regulation S under the US Securities Act.</p>
Expected Timetable for the Private Placement	<p>The following is the expected timetable of the Private Placement, based on Central European Time (CET)(unless otherwise noted), which may be extended or shortened:</p> <p>May 3, 2023 Launch of Private Placement and commencement of bookbuild.</p> <p>May 4, 2023 Trading halt on ASX (9.00am (Sydney time)).</p> <p>May 4, 2023 Approval of Prospectus by BaFin and publication of the Prospectus.</p> <p>May 4, 2023 Announcement of completion of bookbuild.</p> <p>May 5, 2023 Trading halt on ASX lifted (10.00am (Sydney time)).</p> <p>May 11, 2023 Receipt of proceeds of the Private Placement by the Company.</p> <p>May 12, 2023 Issuance and settlement of New Shares.</p> <p>May 12, 2023 Admission to Trading on the FSE.</p> <p>On or around</p> <p>May 15, 2023 Commencement of trading of New Shares on the FSE and ASX.</p>
Underwriters	<p>Merrill Lynch Equities (Australia) Limited, Level 34 Governor Phillip Tower, 1 Farrer Place, Sydney, New South Wales, Australia, LEI 5493000ZISK51SMQFR40, ABN 65 006 276 795 and Canaccord Genuity (Australia) Limited, Level 4, 60 Collins Street, Melbourne, Victoria, Australia, LEI 25490076B734BP7UYI53, ABN 19 075 071 466 (together the "Underwriters")</p>
Placement Price	<p>EUR 3.08 or A\$ 5.10 per New Share. The Placement Price has been set in both euro and Australian dollars and investors may subscribe for New Shares in either of these currencies at these prices, such election to be made by investors when applying to subscribe for New Shares.</p>

No adjustment will be made to the Placement Price in either currency as a result of exchange rate movements prior to settlement of the New Shares.

Allotment Criteria The allotment of New Shares to investors will be decided by agreement between the Underwriters and the Company (each acting reasonably and taking into consideration, amongst other matters, the Company's objective to seek to provide a pro rata allocation to existing institutional securityholders who participate in the Private Placement), provided that the Company must not refuse an allocation of New Shares to an investor proposed by the Underwriters where such refusal would result in a shortfall and the Underwriters may refuse an allocation of New Shares if the Underwriters are not prepared to accept the credit risk of that bidding investor for the amount bid for. The decision ultimately rests with the Company and the Underwriters. Allotments will be made on the basis of the quality of individual investors (e.g., the expected investment horizon and trading behavior) as well as individual orders and other important allotment criteria to be determined by agreement between the Underwriters and the Company.

Stock Market Symbol, ISIN..... Ticker symbolVUL
ISIN.....AU0000066086

Dividend Rights Each Share in the Company carries full dividend rights. Subject to and in accordance with the Australian Corporations Act, the ASX Listing Rules, the rights of any holders of preference shares and the rights of the holders of any Shares created or raised under any special arrangement as to dividends, the Directors may from time to time decide to pay a dividend to the Shareholders entitled to the dividend which shall be payable on all Shares according to the proportion that the amount paid (not credited) is of the total amounts paid and payable (excluding amounts credited) in respect of such Shares.

The Directors may from time to time pay to Shareholders any interim dividends they determine. No dividend will carry interest as against the Company. The Directors may set aside out of the profits of the Company any amounts that may determine as reserves, to be applied at the discretion of the Directors, for any purpose for which the profits of the Company may be properly applied.

Subject to the ASX Listing Rules and the Australian Corporations Act, the Company may, by resolution of the Directors, implement a dividend reinvestment plan on such terms and conditions as the Directors think fit and which provides for any dividend which the Directors may declare from time to time payable on Shares which are participating Shares in the dividend reinvestment plan, less any amount which the Company may either pursuant to the Company's Constitution or any law be entitled or obliged to retain, be applied by the Company to the payment of the subscription price of Shares.

No dividend or distribution of profits were paid to the Company's Shareholders in the financial years ended 30 June 2020, 2021 or 2022 or 31 December 2022 or in the period between 1 January 2023 and the date of this Offering Circular.

The Company anticipates that significant expenditure will be incurred in the evaluation and development of the Company's projects. These activities, together with the possible acquisition of interests in other projects, are expected to dominate at least the first two-year period

following the date of the Prospectus. Accordingly, the Company does not expect to declare any dividends during that period.

Any future determination as to the payment of dividends by the Company will be at the discretion of the Directors and will depend on the financial condition of the Company, future capital requirements and general business and other factors considered relevant by the Directors. No assurance in relation to the payment of dividends or franking credits, i.e. credits investors may receive for underlying taxes paid by the Company via the dividend imputation system, attaching to dividends can be given by the Company.

Voting Rights

Subject to any rights or restrictions for the time being attached to any class or classes of Shares, at a general meeting of the Company's shareholders (each a "**Shareholder**");

- each Shareholder entitled to vote may vote in person or by proxy, attorney or corporate representative;
- on a show of hands, every person present who is a Shareholder or a proxy, attorney or corporate representative of a Shareholder has one vote;
- on a poll, each Shareholder who is present in person or by proxy, attorney or corporate representative has one vote in respect of each Share held by that person, or in respect of which that person is appointed a proxy, attorney or corporate representative (but, in respect of partly paid Shares, will have such number of votes as bears the same proportion to the total of such Shares registered in the Shareholders' name as the amount paid (not credited) bears to the total amounts paid and payable (excluding amounts credited)).

All of the Company's Shares confer the same voting rights. There are no restrictions on voting rights.

Form, Certification and Currency of the Shares.....

All of the Existing Shares have been, and all of the New Shares will be, issued as fully paid ordinary shares. The Existing Shares are not, and the New Shares will not be, represented by a physical Share certificate. The Existing Shares are, and the New Shares will be, in registered form.

The Shares are currently quoted on the securities exchange operated by ASX as well as on the FSE. Legal title to the Shares is registered electronically, and transfers of Shares occur electronically pursuant to the settlement facility known as the 'Clearing House Electronic Sub-register System' (CHES) operated by ASX Settlement in accordance with the settlement operating rules of ASX Settlement.

BNP Paribas Securities Services (Sydney Branch) acts as a local custodian for Clearstream Banking S.A., 42 Avenue JF Kennedy, L-1855 Luxembourg, Luxembourg ("**Clearstream**") in the Australian market, account holding institutions connected to the Clearstream system and, ultimately, investors wishing to trade their Shares on the FSE. BNP Paribas Nominees Pty Ltd, Level 6, 60 Castlereagh Street, Sydney NSW 2000, Australia (the "**Custodian**"), acting for BNP Paribas Securities Services (Sydney Branch), is recorded in the Company's share register as holder of the legal title to Shares transferred to investors on the FSE. As a result, such investors are beneficial owners of Shares so transferred, holding such Shares through

their respective account holding institutions, Clearstream and, ultimately, the Custodian.

Due to the dual listing of the Company's Shares on the ASX and the FSE, investors are able to trade the Shares on the ASX and the FSE. Shares traded on the ASX are settled and cleared in A\$ through CHESSE operated by ASX Settlement in accordance with the settlement operating rules of ASX Settlement. Shares traded on the FSE are settled and cleared in euro within the Clearstream system.

Transferability of New Shares.....	The Shares are freely transferable, subject to formal requirements, compliance with applicable securities laws, the registration of the transfer not resulting in a contravention of or failure to observe the provisions of a law of Australia and the transfer not being in breach of either the Australian Corporations Act or the ASX Listing Rules. Purchasers of New Shares in the United States will be subject to the restrictions on transfer set forth below under the heading " <i>Notice to investors in the United States</i> ".
Listing and Commencement of Trading.....	The New Shares are expected to be admitted to trading on the FSE with simultaneous admission to the sub-segment of the regulated market with additional post-admission obligations (Prime Standard) on or about May 12, 2023, without a public offering of Shares in Germany, Australia or any other jurisdiction. Trading of the New Shares is expected to commence on the FSE on or about May 15, 2023. The New Shares are expected to be simultaneously admitted to trading on the ASX and the FSE under the same ticker code "VUL".
Delivery and Settlement.....	Settlement of the New Shares is expected to occur on or about May 12, 2023. Following settlement of the New Shares in the Private Placement, the Custodian, acting for BNP Paribas Securities Services (Sydney Branch), will be recorded in the Company's share register as holder of the legal title to the New Shares trading on the FSE. BNP Paribas Securities Services (Sydney Branch) acts as a local custodian for Clearstream in the Australian market, account holding institutions connected to the Clearstream system and, ultimately, the investors in the New Shares trading on the FSE. As a result, the investors will be beneficial owners of the New Shares, holding such New Shares through their respective account holding institutions, Clearstream and, ultimately, the Custodian.
Proceeds and Costs of the Listing and Private Placement	<p>The Company targets gross proceeds of approximately EUR 65.91 million (A\$ 109.14 million)¹ from the Private Placement resulting from the sale of the New Shares. As the Placement Price has been set in both euro and Australian dollars and investors may subscribe for New Shares using either of those currencies, the Company may receive the proceeds of the Private Placement in a combination of euro and Australian dollars.</p> <p>The costs of the Company related to the Listing and the Private Placement are expected to amount to approximately EUR 3.3 million (A\$ 5.5 million).</p>

¹ Based on an exchange rate of EUR 0.603 : A\$ 1. The Placement Price has been set in both euro and Australian dollars, and investors may subscribe for New Shares in either of these currencies, such election to be made by investors when applying to subscribe for New Shares. The actual amount received by the Company will depend upon the proportion of proceeds received in each of euro and Australian dollars, and the translation of such amounts into the respective other currency will depend upon the applicable exchange rate as of the date those proceeds are received by the Company.

Investors will not be charged expenses by the Company or the Underwriters or the Listing Agent. Investors will have to bear customary transaction and handling fees charged by their brokers or other financial institutions through which they hold their securities.

Use of Proceeds Assuming placement of the New Shares in full, the Company intends to use the net proceeds from the Private Placement as follows:

No.	Intended Use of Proceeds	Estimated Amount (in EUR)
1.	Purchase of long-lead items for the construction of a Phase One lithium plant	38 million
2.	Purchase of long-lead items for the construction of a new Phase One geothermal plant	23 million
3.	General working capital and corporate purposes	Remaining amount.

Lock up Agreements..... *Lock-up Agreements of the Company*

In the underwriting agreement relating to the Private Placement, dated May 3, 2023, among the Company and the Underwriters (the "**Underwriting Agreement**"), the Company agreed with the Underwriters that the Company must not (and must procure that its related bodies corporate do not) allot, issue or sell or agree to allot, issue or sell any Shares or other securities (including securities of the Company or a related body corporate of the Company convertible for or exchangeable into, or that represent the right to receive, Shares or other securities of the Company) or grant or agree to grant any options in respect of Shares or other securities of the Company (including securities convertible or exchangeable into equity, or that represent the right to receive equity), except as expressly contemplated by the Underwriting Agreement or disclosed to the Underwriters, until and including the date 90 days after the allotment date (May 12, 2023) without the prior written consent of the Underwriters. This restriction does not apply to (i) the issue of any securities (including securities of the Company or a related body corporate of the Issuer convertible for or exchangeable into, or that represent the right to receive, Shares or other securities of the Company) under the Company's existing dividend reinvestment or employee incentive schemes (as those terms are defined in the ASX Listing Rules), (ii) the conversion of any convertible securities (as that term is defined in the ASX Listing Rules) which are on issue at the date of the Underwriting Agreement or are issued pursuant to (i) above or (iii) the issue of any securities (including securities of the Issuer or a related body corporate of the Issuer convertible for or exchangeable into, or that represent the right to receive, Securities or other securities of the Issuer) to any strategic investor.

Interests of Parties Participating in the Private Placement The Underwriters act for the Company on the Private Placement and coordinate the structuring and execution of the Private Placement. Upon successful implementation of the Private Placement, the Underwriters will receive a commission, and the size of this commission depends on the results of the Private Placement. As a result of this contractual relationship, the Underwriters have a financial

interest in the success of the Private Placement at the best possible terms.

The Listing Agent acts for the Company on the Listing and coordinates the Listing.

Furthermore, in connection with the Private Placement, each of the Underwriters and any of their respective affiliates may take up a portion of the New Shares in the Private Placement as a principal position and in that capacity may retain, purchase or sell for its own account such Shares or related investments and may offer or sell such Shares or other investments otherwise than in connection with the Private Placement. In addition, the Underwriters or their affiliates may enter into financing arrangements (including swaps, warrants or contracts for differences) with investors in connection with which the Underwriters (or their affiliates) may from time to time acquire, hold or dispose of Shares. None of the Underwriters intends to disclose the extent of any such investment or transactions otherwise than in accordance with any legal or regulatory obligation to do so.

The Listing Agent, the Underwriters or their affiliates have, and may from time to time in the future continue to have, business relations with Vulcan Group or may perform services for Vulcan Group in the ordinary course of business for which they have received or may receive customary fees and commissions.

The Company's Directors hold Shares and therefore have a personal interest in the performance of the Company's share price.

None of the aforementioned interests in the Private Placement constitute a conflict of interests or a potential conflict of interests. Consequently, there are no conflicts of interest with respect to the Private Placement.

Risk Factors

An investment in the New Shares involves a number of risks. You should carefully consider the risks described in "*1. Risk Factors*" and "*2.9 Forward-Looking Statements*" of the Prospectus, as well as the additional risks described in the section entitled "*Additional Risk Factors for International Investors*" in this international supplement, prior to investing in the New Shares.

UNDERWRITING

Under the terms of the Underwriting Agreement, the Underwriters have agreed, subject to certain conditions, to act as joint lead managers, underwriters and bookrunners in connection with the Private Placement. Canaccord Genuity (Australia) Limited is also acting as Global Coordinator to the Private Placement. The Underwriters must use all reasonable endeavours to procure subscriptions for all New Shares, by offering those New Shares to institutional, professional, sophisticated and experienced investors, at the Placement Price. If the Underwriters are unable to procure subscriptions for all New Shares, the Underwriters must (in their respective proportions), subscribe for, or procure other investors to subscribe for, the shortfall. The Underwriters have agreed to remit to the Company gross proceeds raised from the Private Placement, minus the underwriting and management fees payable to the Underwriters and costs, one day prior to the day on which the New Shares are delivered to investors, which is expected to be May 12, 2023.

The Underwriters are entitled to allocate and deliver the New Shares to investors in the Private Placement, which is being conducted by way of a bookbuild offering to selected institutional investors in Germany, in the United States of America and elsewhere.

In connection with the Private Placement, each of the Underwriters and any of their respective affiliates may take up a portion of the New Shares in the Private Placement as a principal position and in that capacity may retain, purchase or sell for its own account such Shares or related investments and may offer or sell such Shares or other investments otherwise than in connection with the Private Placement. Accordingly, references in this Offering Circular to New Shares being offered or placed should be construed as including any offering or placement of New Shares to the Underwriters or any of their respective affiliates acting in such capacity. In addition, certain of the Underwriters or their affiliates may enter into financing arrangements (including swaps, warrants or contracts for differences) with investors in connection with which Underwriters (or their affiliates) may from time to time acquire, hold or dispose of Shares in the Company. None of the Underwriters intend to disclose the extent of any such investment or transactions otherwise than in accordance with any legal or regulatory obligation to do so.

Underwriting Agreement

Conditions

The obligations of the Underwriters under the Underwriting Agreement are subject to various conditions, including, among other things, (i) receipt of customary certificates, legal opinions and letters, and (ii) the making of necessary filings and the receipt of necessary approvals in connection with the Private Placement.

Commissions and expenses

The Underwriters underwrite and purchase the New Shares and offer them to institutional, professional, sophisticated and experienced investors, at the Placement Price, in the Private Placement. In return, they will receive an underwriting and management fee equal to 3.50% of the gross proceeds raised from the Private Placement, to be split equally between the Underwriters. In addition, Canaccord Genuity (Australia) Limited will be entitled to a global coordinator fee equal to 0.30% of the gross proceeds raised from the Private Placement. The underwriting and management fee and the global coordinator fee payable to the Underwriters and Canaccord Genuity (Australia) Limited, respectively, may be withheld from the proceeds from the sale of the New Shares.

The Company has also agreed to reimburse the Underwriters for certain costs and expenses, including legal fees of their advisers. Commissions and the reimbursement of costs and expenses by the Company represent a major part of the costs of the Company in connection with the Private Placement and the Listing.

Termination and Indemnification

The Underwriting Agreement provides that the Underwriters may, under certain circumstances, terminate the Underwriting Agreement. In particular, the Underwriting Agreement may be terminated if:

- (a) one or more of the following events occur:
 - (i) an outbreak or escalation of hostilities or a state of emergency declaration involving any of Australia, the United States, the United Kingdom, Japan, Hong Kong, Ukraine, a member state of

NATO or a member of the European Union, or there is a major act of terrorism anywhere in the world;

- (ii) a general moratorium on commercial banking activities in Australia, the United States, Germany or the United Kingdom, is declared by the relevant banking authority in any of those countries, or there is a material disruption in commercial banking or security settlement or clearance services in any of those countries;
- (iii) trading in all securities quoted or listed on ASX, the London Stock Exchange, the Frankfurt Stock Exchange or the New York Stock Exchange is suspended or limited in a material respect for one day on which that exchange is open for trading ("**Trading Day**"), or substantially all of a Trading Day, excluding any suspension or limitation of trading caused by or in connection with any technical or systems failure;
- (iv) any adverse change or disruption to the political conditions or financial markets of Australia, the United Kingdom, the United States, Hong Kong, Japan, Germany or the international financial markets or any change or development involving a prospective adverse change in national or international political, financial or economic condition;
- (v) the Company is in breach of any term, condition, undertaking, representation, warranty or agreement of the Underwriting Agreement or the Listing Agreement;
- (vi) a new or materially revised law is introduced in Australia or Germany or any new regulation is made under any law, or a government agency adopts a policy, or there is any official public announcement that such a law or regulation will be introduced or policy adopted (as the case may be);
- (vii) a change in the senior management of the Company or the board of directors of the Company is announced or occurs; or
- (viii) the certificate (the "**Certificate**") required to be delivered by the Company under the Underwriting Agreement (certifying the Company's compliance with its obligations under the Underwriting Agreement, that the Company has not defaulted under the Underwriting Agreement, that the representations and warranties given by the Company are true and correct in all respects and not misleading or deceptive and no termination events under the Underwriting Agreement have occurred), is not true or correct;

and in the bona fide opinion of the Underwriters, the occurrence of such event:

- (ix) has, or is likely to have a material adverse effect on the marketing, success or settlement of the Private Placement, willingness of persons to subscribe for New Shares, the market price of Shares or the business, financial position or prospects of the Company and its related bodies corporate; or
 - (x) has given rise to or is likely to give rise to a contravention by an Underwriter or its affiliates incurring a liability under, or contravening, the Constitution, the Corporations Act or the ASX Listing Rules, as applicable;
- (b) the S&P/ASX 200 Index is at any time during the period from 1.30 am (Sydney time) on May 4, 2023 (launch of Private Placement and commencement of bookbuild) until the close of trading on May 11, 2023, at a level that is 10% or more below the level as at the close of trading on the day before the date of the Underwriting Agreement;
 - (c) a condition to the Underwriting Agreement is not satisfied or waived by its applicable deadline;
 - (d) Listing Agreement

- (i) the Listing Agreement:
 - (A) has terminated (or an event has occurred which entitles a party to terminate the Listing Agreement) or is rescinded;
 - (B) has become void, illegal, invalid or unenforceable; or
 - (C) has been varied in any material respect without the prior written consent of the Underwriters; or
- (ii) a condition precedent to performance of the parties' material obligations under the Listing Agreement has not been satisfied (or waived, if capable of waiver, with such waiver being acceptable to the Underwriters in the case of waiver by the Company) by its due date (or becoming incapable of being satisfied by its due date);
- (c) any event specified in the timetable in the Underwriting Agreement is delayed for more than two business days without the prior written approval of the Underwriters;
- (f) the Certificate is not delivered to the Underwriters in accordance with the Underwriting Agreement;
- (g) there is an event, occurrence or non-occurrence which makes it illegal or commercially impossible for the Underwriters to satisfy a material obligation under the Underwriting Agreement, or to market, promote or settle the Private Placement, or that causes the Underwriters to delay satisfying a material obligation under the Underwriting Agreement;
- (h) the Company withdraws the Private Placement or indicates that it does not intend to or is unable to proceed with the Private Placement;
- (i) there is an application to a government agency for an order, declaration or other remedy, or a government agency commences any investigation or hearing or announces its intention to do so, in each case in connection with the Private Placement or any agreement entered into in respect of the Private Placement;
- (j) there is a material adverse change, or in the Underwriters' reasonable opinion, a development involving a potential material adverse change, in the condition, assets, liabilities, financial or trading position or performance, profits, losses, management or prospects of the Company or any of its related corporate bodies (in so far as the position in relation to related bodies corporate affects the overall position of the Company);
- (k) proceedings are commenced or there is a public announcement of an intention to commence proceedings before a court or tribunal of competent jurisdiction in Australia seeking an injunction or other order in relation to the Private Placement;
- (l) the Company breaches, or defaults under, any provision, undertaking, covenant or ratio of a material financing agreement which has a material adverse effect, or a lender or financier fails to agree a waiver or amendment to a material financing agreement in relation to any breach, default or review event under that material financing agreement and that failure to agree would, in the Underwriters' reasonable opinion, have a material adverse effect;
- (m) the Company commits a material breach of the Corporations Act, its Constitution, the ASX Listing Rules or other applicable laws or has failed to comply with its continuous disclosure obligations under the Corporations Act or ASX Listing Rules;
- (n) the Company alters its capital structure or its Constitution, other than as contemplated by the Underwriting Agreement or as disclosed to the Underwriters, without the prior consent of the Underwriters;
- (o) ASIC issues, or threatens to issue, proceedings in relation to the Private Placement, or commences any inquiry or investigation in relation to the Private Placement (or gives notice of its intention to do either of those things);

- (p) ASX makes any official statement to any person, or indicates to the Company or the Underwriters that:
- (i) it will not grant official quotation of the New Shares before 9.30am (Sydney time) on May 15, 2023, or if such approval is granted, the approval is withdrawn or qualified (other than by customary conditions);
 - (ii) Shares will be suspended from quotation by ASX; or
 - (iii) the Company will be removed from the official list of ASX,
- or any of those things actually occurs;
- (q) a director or officer (as that term is defined in the Corporations Act) of the Company is charged with an indictable offence or disqualified from managing a corporation under Part 2D.6 of the Corporations Act, or certain other actions are taken against a director in relation to any fraudulent conduct or activity (whether or not in connection with the Private Placement) or the Company engages in any fraudulent activity; or
- (r) the Company or any of its related bodies corporate is, or becomes, insolvent.

If the Underwriting Agreement is terminated before the settlement of the New Shares, the Private Placement will not take place, in which case any allotments already made to investors will be invalidated and investors will have no claim for delivery. Claims with respect to fees already paid and costs incurred by an investor in connection with the Private Placement will be governed solely by the legal relationship between the investor and the financial intermediary to which the investor submitted its purchase order. Investors who engage in short-selling bear the risk of being unable to satisfy their delivery obligations.

Under the Underwriting Agreement, the Company agreed to indemnify the Underwriters from certain liability risks arising in connection with the Private Placement.

NOTICE TO INVESTORS IN THE UNITED STATES

The New Shares have not been and will not be registered under the US Securities Act or with any securities regulatory authority of any state or other jurisdiction of the United States, and may not be offered, sold, pledged or otherwise transferred into or within the United States, except pursuant to an exemption from, or in a transaction not subject to, the registration requirements of the US Securities Act and in compliance with any applicable securities laws of any state or other jurisdiction of the United States. Accordingly, the New Shares will not be offered or sold in this Private Placement within the United States, except to (i) QIBs as defined in Rule 144A pursuant to Rule 144A or another available exemption from the registration requirements of the US Securities Act and (ii) Institutional Accredited Investors (being institutional "accredited investors" as defined in Rule 501(a)(1), (2), (3) or (7) under the US Securities Act) pursuant to an available exemption from the registration requirements of the US Securities Act, and are being offered and sold in this Private Placement outside the United States pursuant to Regulation S under the US Securities Act. This Private Placement is being made in the United States through US broker-dealer affiliates of the Underwriters. Transfers of New Shares will be restricted, and each purchaser will be deemed to have made acknowledgements, representations and agreements, as described below.

Each purchaser of New Shares in the United States, by accepting delivery of this Offering Circular and the New Shares, will be deemed to have represented and agreed as follows (terms used herein that are defined in Rule 144A under the US Securities Act or Regulation S under the US Securities Act are used herein as defined therein):

1. The purchaser is, and at the time of its purchase of any New Shares will be, either (i) a QIB within the meaning of Rule 144A under the US Securities Act or (ii) an Institutional Accredited Investor (being an "accredited investor" as defined in Rule 501(a)(1), (2), (3) or (7) under the US Securities Act), and in each case has delivered to the Company and the Underwriters a confirmation letter in the form provided to it containing, amongst other things, confirmation as to its status as a QIB or an Institutional Accredited Investor and representations as to certain other US securities law matters.
2. The purchaser understands and acknowledges that the New Shares have not been and will not be registered under the US Securities Act, that sellers of New Shares may be relying on the exemption from the registration requirements of Section 5 of the US Securities Act provided by Rule 144A thereunder, and that the New Shares may not be offered or sold, directly or indirectly, in the United States, other than in accordance with paragraph 4 below.
3. The purchaser is purchasing the New Shares (i) for its own account, or (ii) for the account of one or more other QIBs or Institutional Accredited Investors for which it is acting as a duly authorized fiduciary or agent with sole investment discretion with respect to each such account and with full authority to make the acknowledgments, representations and agreements herein with respect to each such account (in which case the purchaser hereby makes such acknowledgments, representations and agreements on behalf of such QIBs or Institutional Accredited Investors as well), in each case for investment and not with a view to any resale or distribution of any such New Shares.
4. The purchaser understands and agrees that offers and sales of New Shares are being made in the United States only to persons reasonably believed to be QIBs or Institutional Accredited Investors in transactions not involving a public offering which are exempt from the registration requirements of the US Securities Act, and that if in the future it or any such other investors for which it is acting, as described in paragraph 3 above, or any other fiduciary or agent representing such investors decides to offer, sell, deliver, hypothecate or otherwise transfer any New Shares, it or any such other investors and any such fiduciary or agent will do so only (i) pursuant to an effective registration statement under the US Securities Act, (ii) to persons that the seller and anyone acting on its behalf reasonably believe to be QIBs in transactions meeting the requirements of Rule 144A or Institutional Accredited Investors in transactions exempt from the registration requirements of the US Securities Act, (iii) outside the United States in an "offshore transaction" pursuant to Regulation S under the US Securities Act (and not in a pre-arranged transaction resulting in the resale of such New Shares into the United States) or (iv) in accordance with Rule 144 under the US Securities Act (if available) and, in each case, in accordance with any applicable securities laws of any state or other jurisdiction of the United States and of any other jurisdiction. The purchaser understands that no representation can be made as to the availability of the exemption provided by Rule 144 under the US Securities Act for the resale of New Shares.

5. The purchaser understands that (i) the New Shares are "restricted securities" within the meaning of Rule 144(a)(3) under the US Securities Act and (ii) for so long as the New Shares are "restricted securities" within the meaning of the US federal securities laws, no New Shares may be deposited into any American depository receipt facility established or maintained by a depository bank, other than a restricted depository receipt facility, and that such New Shares will not settle or trade through the facilities of the Depository Trust Company or any other US clearing system.
6. The purchaser has received a copy of this Offering Circular and has had access to such financial and other information concerning the Company as it deems necessary in connection with making its own investment decision to purchase New Shares. The purchaser acknowledges that none of the Company or the Underwriters or any of their respective affiliates or representatives has made any representation to it with respect to the Company or the allocation, offering or sale of New Shares other than as set forth in this Offering Circular which has been delivered to it, and upon which the purchaser is solely relying in making its investment decision with respect to the New Shares. The purchaser has held and will hold any offering materials, including this Offering Circular, it receives directly or indirectly from the Company in confidence, and understands that any such materials are solely intended for it and not to be redistributed or duplicated by it. The purchaser acknowledges that it has read and agreed to the matters stated in this section.
7. We have read the discussion of the PFIC rules in the section entitled "*Certain United States Federal Income Tax Considerations*" below and will seek our own independent specialist advice with respect to the US tax consequences of our interest in the New Shares.;
8. The purchaser understands that these representations and undertakings are required in connection with the securities laws of the United States and that the Company, the Underwriters and their respective affiliates and representatives will rely upon the truth and accuracy of the foregoing acknowledgements, representations and agreements. The purchaser irrevocably authorizes the Company, the Underwriters and their respective affiliates and representatives to produce this document to any interested party in any administrative or legal proceedings or official inquiry with respect to the matters covered herein.
9. The purchaser undertakes to promptly notify the Company and the Underwriters if, at any time prior to a purchase of New Shares, any of the foregoing ceases to be true.

Neither the Company nor the Underwriters nor any of their respective affiliates or representatives accept any legal responsibility for any violation by any person, whether or not a prospective investor in the New Shares or other securities, of any of the foregoing restrictions.

In addition, until the end of the 40th calendar day after commencement of this Private Placement, any offer or sale of New Shares within the United States by a dealer (whether or not participating in this Private Placement) may violate the registration requirements of the US Securities Act, if such offer or sale is made other than in accordance with Rule 144A under the US Securities Act or another exemption from registration under the US Securities Act.

NOTICE TO INVESTORS OUTSIDE THE UNITED STATES

Each purchaser who acquires New Shares outside the United States, by accepting delivery of this Offering Circular and the New Shares, will be deemed to have represented and agreed as follows:

1. The purchaser understands and acknowledges that the New Shares have not been and will not be registered under the US Securities Act or with any securities regulatory authority of any state or other jurisdiction of the United States.
2. The purchaser is acquiring such New Shares in an "offshore transaction" within the meaning of, and meeting the requirements of, Regulation S.
3. It is not an affiliate of the Company as defined in Rule 405 under the US Securities Act or a person acting on behalf of such an affiliate.
4. The purchaser understands that these representations and undertakings are required in connection with the securities laws of the United States and that the Company, the Underwriters and their respective affiliates and representatives will rely upon the truth and accuracy of the foregoing acknowledgements, representations and agreements. The purchaser irrevocably authorizes the Company, the Underwriters

and their respective affiliates and representatives to produce this document to any interested party in any administrative or legal proceedings or official inquiry with respect to the matters covered herein.

5. If the purchaser is acquiring any New Shares as a fiduciary or agent for one or more accounts, it represents that it has sole investment discretion with respect to each such account and that it has full power to make (and does make) the foregoing acknowledgements, representations and agreements on behalf of each such account.
6. The purchaser undertakes to promptly notify the Company and the Underwriters if, at any time prior to a purchase of New Shares, any of the foregoing ceases to be true.

NOTICE TO INVESTORS IN THE EUROPEAN ECONOMIC AREA

This Offering Circular has been prepared on the basis that all offers of New Shares within any member state of the European Economic Area (the "**Relevant States**") will be made pursuant to an exemption under Regulation (EU) 2017/1129 of the European Parliament and of the Council of June 14, 2017 on the prospectus to be published when securities are offered to the public or admitted to trading on a regulated market, as amended (the "**EU Prospectus Regulation**"). Accordingly, any person making or intending to make any offer of New Shares in any Relevant State should only do so in circumstances in which no obligation arises for the Company or the Underwriters or the Listing Agent to produce a prospectus for such offer. Neither the Company nor the Underwriters have authorized, nor do they authorize, the making of any offer of New Shares through any financial intermediary, other than offers made by the Underwriters, which constitute the final placement of the New Shares contemplated in this Offering Circular.

No offer to the public of any New Shares which are the subject of this Private Placement has been and will be made in any Relevant State, except for any offers of New Shares in any Relevant State in accordance with the following exceptions under the EU Prospectus Regulation:

1. to any legal entity which is a qualified investor as defined under Article 2 of the EU Prospectus Regulation; or
2. to fewer than 150 natural or legal persons (other than qualified investors as defined under Article 2 of the EU Prospectus Regulation), subject to obtaining the prior consent of the Underwriters for any such offer; or
3. in any other circumstances falling within Article 1(4) of the EU Prospectus Regulation,

provided that no such offer of New Shares shall result in a requirement for the Company or the Underwriters or the Listing Agent to publish a prospectus pursuant to Article 3 of the EU Prospectus Regulation or a supplement to a prospectus pursuant to Article 23 of the EU Prospectus Regulation, and each person who initially acquires New Shares or to whom any offer is made will be deemed to have represented, warranted and agreed to and with the Company and the Underwriters that it is a qualified investor as defined in the EU Prospectus Regulation.

If any New Shares are offered to a financial intermediary as that term is defined in the EU Prospectus Regulation, each such financial intermediary will be deemed to have represented, acknowledged and agreed that the New Shares acquired by it in the Private Placement have not been acquired on a non-discretionary basis on behalf of, nor have they been acquired with a view to their offer or resale to, persons in circumstances which may give rise to an offer to the public, other than their offer or resale in any Relevant State to qualified investors as defined in the EU Prospectus Regulation or in circumstances in which the prior consent of the Company or the Underwriters has been obtained to each such proposed offer or resale.

For the purposes of this provision, the expression "offer to the public" in relation to any New Shares in any Relevant State means a communication to persons in any form and by any means, presenting sufficient information on the terms of the Private Placement and the New Shares, so as to enable an investor to decide to purchase or subscribe for New Shares, including any placing of New Shares through financial intermediaries, as set forth in the EU Prospectus Regulation.

NOTICE TO INVESTORS IN THE UNITED KINGDOM

This Offering Circular and any other materials in relation to the New Shares described herein is directed at, and for distribution in the United Kingdom only to, persons who are qualified investors within the meaning of Article 2 of the Prospectus Regulation as it forms part of retained EU law in the United Kingdom as defined in

the European Union (Withdrawal) Act 2018 (as amended) (the "**UK Prospectus Regulation**") and who are also (i) persons who have professional experience in matters relating to investments falling within Article 19 para. 5 of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (the "**Order**"), (ii) high net worth entities falling within Article 49 para. 2 lit. (a) to (d) of the Order or (iii) other persons to whom it may otherwise lawfully be communicated (all such persons being together referred to as "**Relevant Persons**"). The New Shares are only available to, and any invitation, offer or agreement to subscribe, purchase or otherwise acquire such New Shares will be engaged in only with, Relevant Persons. Any person in the United Kingdom who is not a Relevant Person should not act or rely on this Offering Circular or any of its contents. Any investment or investment activity to which this Offering Circular relates is only available to Relevant Persons and will only be engaged in with Relevant Persons. This Offering Circular and its contents are confidential and should not be distributed, published or reproduced (in whole or in part) or disclosed by recipients to any other person in the United Kingdom.

No New Shares have been offered or will be offered to the public in the United Kingdom in the course of the Private Placement, except that the New Shares may be offered to the public in the United Kingdom at any time:

- (i) to any legal entity which is a qualified investor as defined under Article 2 of the UK Prospectus Regulation;
- (ii) to fewer than 150 natural or legal persons (other than qualified investors as defined under Article 2 of the UK Prospectus Regulation), subject to obtaining the prior consent of the Underwriters for any such offer; or
- (iii) in any other circumstances falling within Section 86 of the Financial Services and Markets Act 2000, including any regulations made pursuant thereto (the "**FSMA**") ,

provided that no such offer of New Shares shall result in a requirement for the Company or the Underwriters or the Listing Agent to publish a prospectus pursuant to Section 85 of the FSMA, or supplement a prospectus pursuant to Article 23 of the UK Prospectus Regulation.

For the purposes of this provision, the expression an "offer to the public" in relation to the New Shares in the United Kingdom means the communication in any form and by any means of sufficient information on the terms of the offer and any New Shares to be offered so as to enable an investor to decide to purchase or subscribe for any New Shares.

NOTICE TO INVESTORS IN AUSTRALIA

This Offering Circular is not a prospectus, product disclosure statement or other disclosure document for the purposes of the Corporations Act 2001 of Australia, as amended (the "**Australian Corporations Act**"), or any other offering document under Australian law. This Offering Circular is not subject to the disclosure requirements under Chapter 6D of the Australian Corporations Act, and may not contain all of the information that an investor or their professional advisers may find in a prospectus, a product disclosure statement or other disclosure document prepared in accordance with the Australian Corporations Act which may be required in order to make an informed assessment of the rights and liabilities attaching to the New Shares, or the assets and liabilities, financial position and performance, profits and losses and prospects, of the Company. This Offering Circular is not supplied in connection with any public offering of securities of the Company in Australia and has not been lodged with, or been the subject of notification to, the Australian Securities and Investments Commission. The provision of this Offering Circular, and the information contained within it, is provided for information purposes only and is not an offer or solicitation or an invitation or a recommendation to that person or entity to apply for, subscribe for, acquire or buy any securities of the Company, or any other financial products or securities, in any place or jurisdiction.

This Offering Circular is being distributed in Australia by the Underwriters or their respective affiliates to a limited number of professional investors within the meaning of Section 708 (11) of the Australian Corporations Act, sophisticated investors under Section 708 (8) of the Australian Corporations Act and/or experienced investors under Section 708 (10) of the Australian Corporations Act. The person or entity receiving this Offering Circular represents and warrants that if it is in Australia, it is a professional investor, a sophisticated investor and/or a experienced investor (under Sections 708(11), 708(8) and 708 (10) the Australian Corporations Act, respectively) and that it will not distribute this Offering Circular to any other person or entity.

NOTICE TO INVESTORS IN CANADA (BRITISH COLUMBIA, ONTARIO AND QUEBEC PROVINCES)

This document constitutes an offering of New Shares only in the Provinces of British Columbia, Ontario and Quebec (the "**Provinces**"), only to persons to whom New Shares may be lawfully distributed in the Provinces, and only by persons permitted to sell such securities. This document is not a prospectus, an advertisement or a public offering of securities in the Provinces. This document may only be distributed in the Provinces to persons who are "accredited investors" within the meaning of National Instrument 45-106 – *Prospectus Exemptions*, of the Canadian Securities Administrators.

No securities commission or authority in the Provinces has reviewed or in any way passed upon this document, the merits of the New Shares or the offering of the New Shares and any representation to the contrary is an offence.

No prospectus has been, or will be, filed in the Provinces with respect to the offering of New Shares or the resale of such securities. Any person in the Provinces lawfully participating in the offer will not receive the information, legal rights or protections that would be afforded had a prospectus been filed and receipted by the securities regulator in the applicable Province. Furthermore, any resale of the New Shares in the Provinces must be made in accordance with applicable Canadian securities laws. While such resale restrictions generally do not apply to a first trade in a security of a foreign, non-Canadian reporting issuer that is made through an exchange or market outside Canada, Canadian purchasers should seek legal advice prior to any resale of the New Shares.

The Company as well as its directors and officers may be located outside Canada and, as a result, it may not be possible for purchasers to effect service of process within Canada upon the Company or its directors or officers. All or a substantial portion of the assets of the Company and such persons may be located outside Canada and, as a result, it may not be possible to satisfy a judgment against the Company or such persons in Canada or to enforce a judgment obtained in Canadian courts against the Company or such persons outside Canada.

Any financial information contained in this document has been prepared in accordance with Australian Accounting Standards and also comply with International Financial Reporting Standards and interpretations issued by the International Accounting Standards Board. Unless stated otherwise, all dollar amounts contained in this document are in Australian dollars.

Statutory rights of action for damages and rescission. Securities legislation in certain Provinces may provide a purchaser with remedies for rescission or damages if an offering memorandum contains a misrepresentation, provided the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's Province. A purchaser may refer to any applicable provision of the securities legislation of the purchaser's Province for particulars of these rights or consult with a legal adviser.

Certain Canadian income tax considerations. Prospective purchasers of the New Shares should consult their own tax adviser with respect to any taxes payable in connection with the acquisition, holding or disposition of the New Shares as there are Canadian tax implications for investors in the Provinces.

Language of documents in Canada. Upon receipt of this document, each investor in Canada hereby confirms that it has expressly requested that all documents evidencing or relating in any way to the sale of the New Shares (including for greater certainty any purchase confirmation or any notice) be drawn up in the English language only. *Par la réception de ce document, chaque investisseur canadien confirme par les présentes qu'il a expressément exigé que tous les documents faisant foi ou se rapportant de quelque manière que ce soit à la vente des valeurs mobilières décrites aux présentes (incluant, pour plus de certitude, toute confirmation d'achat ou tout avis) soient rédigés en anglais seulement.*

NOTICE TO INVESTORS IN THE CAYMAN ISLANDS

No offer or invitation to subscribe for New Shares may be made to the public in the Cayman Islands or in any manner that would constitute carrying on business in the Cayman Islands.

NOTICE TO INVESTORS IN NEW ZEALAND

This Offering Circular has not been registered, filed with or approved by any New Zealand regulatory authority under the Financial Markets Conduct Act 2013 (the "**FMCA**"). This Offering Circular does not

constitute a product disclosure statement or other disclosure document under the FMC Act and does not purport to include the information required for a product disclosure statement or other disclosure document under the FMC Act. The New Shares are not being offered or sold in New Zealand, or allotted with a view to being offered for sale in New Zealand, other than to a person who:

1. is an "investment business" within the meaning of Clause 37 of Schedule 1 of the FMC Act; or
2. meets the investment activity criteria specified in Clause 38 of Schedule 1 of the FMC Act; or
3. is "large" within the meaning of Clause 39 of Schedule 1 of the FMC Act; or
4. is a "government agency" within the meaning of Clause 40 of Schedule 1 of the FMC Act; or
5. is an "eligible investor" within the meaning of Clause 41 of Schedule 1 of the FMC Act.

(each a "**Wholesale Investor**").

Each person who initially acquires New Shares or to whom any offer is made will be deemed to have represented and warranted to, and agreed with, the Company and the Underwriters that (i) it is (or any person for whom it is acquiring any New Shares is) a Wholesale Investor, (ii) the New Shares must not be offered for sale in New Zealand in the twelve-month period after the date of allotment, except to a Wholesale Investor or where such offer does not require disclosure to investors in accordance with Part 3 of the FMC Act and that it will observe such New Zealand on-sale restrictions, and (iii) it has provided a valid "safe harbor certificate" to the Company in accordance with clause 44 of Schedule 1 of the FMC Act.

NOTICE TO INVESTORS IN HONG KONG

WARNING: This document has not been, and will not be, registered as a prospectus under the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Cap. 32) of Hong Kong, nor has it been authorised by the Securities and Futures Commission in Hong Kong pursuant to the Securities and Futures Ordinance (Cap. 571) of the Laws of Hong Kong (the "**SFO**"). Accordingly, this document may not be distributed, and the New Shares may not be offered or sold, in Hong Kong other than to "professional investors" (as defined in the SFO and any rules made under that ordinance).

No advertisement, invitation or document relating to the New Shares has been or will be issued, or has been or will be in the possession of any person for the purpose of issue, in Hong Kong or elsewhere that is directed at, or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to New Shares that are or are intended to be disposed of only to persons outside Hong Kong or only to professional investors. No person allotted New Shares may sell, or offer to sell, such securities in circumstances that amount to an offer to the public in Hong Kong within six months following the date of issue of such securities.

The contents of this document have not been reviewed by any Hong Kong regulatory authority. You are advised to exercise caution in relation to the offer. If you are in doubt about any contents of this document, you should obtain independent professional advice.

NOTICE TO INVESTORS IN KOREA

The Company is not making any representation with respect to the eligibility of any recipients of this document to acquire the New Shares under the laws of Korea, including the Foreign Exchange Transaction Act and regulations thereunder. The New Shares have not been, and will not be, registered under the Financial Investment Services and Capital Markets Act of Korea ("**FSCMA**") and therefore may not be offered or sold (directly or indirectly) in Korea or to any resident of Korea or to any persons for re-offering or resale in Korea or to any resident of Korea (as defined under the Foreign Exchange Transaction Act of Korea and its enforcement decree), except as permitted under the applicable laws and regulations of Korea.

Accordingly, the New Shares may not be offered or sold in Korea other than to "accredited investors" (as defined in the FSCMA).

NOTICE TO INVESTORS IN SWITZERLAND

The Private Placement in Switzerland is exempt from the requirement to prepare and publish a prospectus under the Swiss Federal Act on Financial Services ("**FinSA**"), because the New Shares are offered solely to professional clients within the meaning of Article 4 para. 3 of the FinSA and the New Shares will not be admitted to trading on any trading venue (exchange or multilateral trading facility) in Switzerland. This Offering Circular does not constitute a prospectus or a similar document pursuant to FinSA, and no such prospectus has been or will be prepared for or in connection with the offering of the New Shares. Each purchaser of the New Shares in Switzerland will be deemed to have represented and agreed that it qualifies as a "professional client" within the meaning of the FinSA.

NOTICE TO INVESTORS IN SINGAPORE

This document and any other materials relating to the New Shares have not been, and will not be, lodged or registered as a prospectus in Singapore with the Monetary Authority of Singapore. Accordingly, this document and any other document or materials in connection with the offer or sale, or invitation for subscription or purchase, of New Shares, may not be issued, circulated or distributed, nor may the New Shares be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore except pursuant to and in accordance with exemptions in Subdivision (4) Division 1, Part 13 of the Securities and Futures Act 2001 of Singapore (the "**SFA**") or another exemption under the SFA.

This document has been given to you on the basis that you are an "institutional investor" or an "accredited investor" (as such terms are defined in the SFA). If you are not such an investor, please return this document immediately. You may not forward or circulate this document to any other person in Singapore.

Any offer is not made to you with a view to the New Shares being subsequently offered for sale to any other party in Singapore. On-sale restrictions in Singapore may be applicable to investors who acquire New Shares. As such, investors are advised to acquaint themselves with the SFA provisions relating to resale restrictions in Singapore and comply accordingly.

NOTICE TO INVESTORS IN THE UNITED ARAB EMIRATES

This document does not constitute a public offer of securities in the United Arab Emirates ("**UAE**") and the New Shares may not be offered or sold, directly or indirectly, to the public in the UAE. Neither this document nor the New Shares have been approved by the Securities and Commodities Authority ("**SCA**") or any other authority in the UAE.

No marketing of the New Shares has been, or will be, made from within the UAE other than in compliance with the laws of the UAE and no subscription for any securities may be consummated within the UAE. This document may be distributed in the UAE only to "professional investors" (as defined in the SCA Board of Directors' Decision No.13/RM of 2021, as amended).

No offer of New Shares will be made to, and no subscription for New Shares will be permitted from, any person in the Abu Dhabi Global Market or the Dubai International Financial Centre.

ENFORCEMENT OF CIVIL LIABILITIES

The Company is an Australian company registered in Australia under the Corporations Act 2001 (Cth) and its assets are located outside the United States. In addition, most of the members of the Company's board of directors are not residents of the United States and all or most of their assets are located outside the United States. Consequently, it may not be possible for investors to effect service of process within the United States upon the Company or such persons, or to enforce against them or the Company judgments of courts of the United States, including claims arising from the civil liability provisions of the federal securities laws of the United States or other laws of the United States or any state thereof.

The United States and Australia have not entered into a treaty providing for reciprocal recognition and enforcement of judgments in civil and commercial matters. A final judgment for payment of money rendered by a federal court or state court in the United States based on civil liability, including United States federal securities laws, may, therefore, not be enforceable in Australia. If the party in whose favor such final judgment is rendered

brings a new suit in a competent court in Australia, such party may submit to the relevant Australian court the final judgment rendered in the United States. Under such circumstances, a judgment by a federal court or state court of the United States against the Company or the aforementioned persons will merely be regarded as evidence of the outcome of the dispute to which such judgment relates, and an Australian court may choose to hear the dispute anew. In addition, awards of punitive damages in actions brought in the United States or elsewhere may be unenforceable in Australia.

PRESENTATION OF FINANCIAL INFORMATION

The Prospectus contains data denominated in Australian dollars, euros and US dollars currency. Figures denominated in Australian dollars, euros and US dollars are designated with "A\$", "EUR" and "US\$", respectively, preceding the amount. If figures are denominated in a currency other than the Australian dollars, euros or US dollars, express reference is made in the corresponding figure or figures utilising the respective applicable currency abbreviation.

Vulcan Group's Consolidated Annual Financial Statements 2020 and 2021 (as defined below) included in the Prospectus are presented in Australian dollars, which was Vulcan Energy Resources Limited's presentational currency during those financial years. However, Vulcan Group changed its presentational currency to euro with effect from the commencement of the financial year ended 30 June 2022. The Company believes this change provides shareholders with a more accurate reflection of its underlying performance, given the focus of Vulcan's activities on the European market, its acquisitions of several German-based operating entities and its planned operations in Europe from which Vulcan expects it will generate the majority of its revenue and costs.

Some figures and percentages in the Prospectus have been rounded according to established commercial standards, whereby aggregate amounts (totals, sub-totals, differences or amounts in relation thereto) are calculated based on the underlying unrounded amounts. As a result, the aggregate amounts may not correspond in all cases to the corresponding rounded amounts contained in the text and tables. Moreover, in the tables, such rounded figures may under certain circumstances not add up precisely to the total figures which may also be included in the tables. The percentage changes that are stated in the text and the tables have been commercially rounded to a whole number unless stated otherwise. In addition, the financial information included in the Prospectus with respect to the short financial year ended 31 December 2022 and the financial year ended 30 June 2022 (together with the euro translations of the financial information for the financial year ended 30 June 2021) has been rounded to the nearest EUR 1,000. With respect to financial data set out in the Prospectus, a dash ("—") signifies that the relevant figure is not applicable, while a zero ("0") signifies that the relevant figure is applicable but is or has been rounded to zero.

Where financial information contained in the Prospectus is described as "audited", this means that it has been taken from the audited consolidated financial statements of the Company prepared in accordance with Australian Accounting Standards and Interpretations ("AASI") issued by the Australian Accounting Standards Board ("AASB") and the Corporations Act 2001 (Cth) of Australia ("**Australian Corporations Act**") as of and for the short financial year ended 31 December 2022 (the "**Consolidated Short Financial Year Financial Statements 2022**"), the audited consolidated annual financial statements of the Company prepared in accordance with AASI and the Australian Corporations Act as of and for the financial year ended 30 June 2022 (the "**Consolidated Annual Financial Statements 2022**"), the audited consolidated annual financial statements of the Company prepared in accordance with AASI and the Australian Corporations Act as of and for the financial year ended 30 June 2021 (the "**Consolidated Annual Financial Statements 2021**") and the audited consolidated annual financial statements of the Company prepared in accordance with AASI and the Australian Corporations Act as of and for the financial year ended 30 June 2020 (the "**Consolidated Annual Financial Statements 2020**" and together with the Consolidated Short Financial Year Financial Statements 2022, the Consolidated Annual Financial Statements 2022 and the Consolidated Annual Financial Statements 2021, the "**Consolidated Financial Statements**"). The Consolidated Financial Statements comply with International Financial Reporting Standards ("**IASB IFRS**") as developed and published by the International Accounting Standards Board ("**IASB**"). According to Art. 1 a) of the Commission Decision of 12 December 2008 (2008/961/EC), IASB IFRS are to be regarded as equivalent to the IFRS adopted under Regulation (EC) No 1606/2002 ("**EU IFRS**"), provided that the notes to the audited financial statements contain an explicit and unreserved statement that these financial statements comply with "International Financial Reporting Standards in accordance with IAS 1 Presentation of Financial Statements". Where the financial information in the Prospectus is described as "unaudited", this means that it was not taken from the Consolidated Financial Statements but was taken or derived from the Company's accounting records or internal management reporting systems or is based on calculations of these figures, or recomputed or derived from the abovementioned sources. All information on value increases and decreases (absolute and in percentage terms) and ratios has been calculated by the Company and is unaudited. IASB IFRS and EU IFRS differ in certain material respects from generally accepted accounting principles in the United States

("US GAAP"). As a result, the results of operations and financial condition derived from the Consolidated Financial Statements that are included in this Offering Circular may differ substantially from the results of operations and financial condition derived from financial statements had they been prepared in accordance with US GAAP. The Company has not prepared a reconciliation of its financial information to US GAAP or a summary of significant accounting differences in the accounting and valuation methods between IASB IFRS, EU IFRS and US GAAP, nor has it otherwise reviewed the impact the application of US GAAP would have on its financial reporting. In making an investment decision, investors must consequently rely on their own examination of the financial information of the Company.

For additional information on the presentation of financial information in this Offering Circular, see "2.11 Notes concerning currency and financial information".

CAUTIONARY NOTE REGARDING MINERAL DISCLOSURES

The estimated ore reserves and/or mineral resources underpinning the production targets in this Offering Circular have been prepared by a competent person or persons in accordance with the requirements of the 2012 Edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources, and Ore Reserves (the "**JORC Code**").

This Offering Circular uses the terms "inferred resources," "indicated resources," "reserves" and "probable reserves" in connection with the presentation of resources, each as defined in accordance with the JORC Code. These standards differ significantly from the mineral reserve disclosure requirements of the US Securities and Exchange Commission (the "**SEC**"). Consequently, mineral reserve and mineral resource information contained in this Offering Circular is not comparable to similar information that would generally be disclosed by companies in accordance with the rules of the SEC.

On 31 October 2018, the SEC adopted amendments to its disclosure rules to modernize the mineral property disclosure requirements for issuers whose securities are registered with the SEC under the US Exchange Act of 1934, as amended (the "**Exchange Act**"). These amendments became effective 25 February 2019, with compliance required for the first fiscal year beginning on or after 1 January 2021. Under the new SEC amendments, the historical property disclosure requirements for mining registrants included in Industry Guide 7 under the US Securities Act have been rescinded and replaced with disclosure requirements in subpart 1300 of Regulation S-K.

As a result of the adoption of subpart 1300 of Regulation S-K, the SEC's standards for mining property disclosures are now more closely aligned to the JORC Code's requirements. For example, the SEC now recognizes estimates of "measured mineral resources", "indicated mineral resources" and "inferred mineral resources." In addition, the SEC has amended its definitions of "proven mineral reserves" and "probable mineral reserves" to be "substantially similar" to the corresponding standards under the JORC Code. However, despite these similarities, SEC standards are still not identical to the JORC Code. Accordingly, investors are cautioned that there can be no assurance that the reserves and resources reported by the Company under the JORC Code would be the same had it prepared its reserve or resource estimates under the standards adopted under subpart 1300 of Regulation S-K.

FORWARD-LOOKING STATEMENTS

This Offering Circular contains certain forward-looking statements. A forward-looking statement is any statement that does not relate to historical facts or events or to facts or events as of the date of this Offering Circular. Forward-looking statements can be identified by the use of forward-looking terminology or subjective assessments including "may", "will", "expect", "plan", "intend", "predict", "estimate", "anticipate", "target", "propose" or "forecasts". This applies, in particular, to statements in this Offering Circular containing information on future earnings capacity, plans and expectations regarding Vulcan Group's business, growth and profitability, and the general economic and legal conditions and other factors to which Vulcan Group is exposed.

The forward-looking statements contained in this Offering Circular are subject to uncertainties, as they relate to future events, and are based on estimates and assessments made to the best of the knowledge of the Company as of the date of this Offering Circular. These forward-looking statements are based on assumptions, uncertainties and other factors, the occurrence or non-occurrence of which could cause the Company's actual circumstances and results, including with regards to the assets, business, financial condition and profitability of the Group, to differ materially from or fail to meet the expectations expressed or implied in the forward-looking statements. These risks, uncertainties and other factors include, but are not limited to:

- the results of exploration activities and the ability to achieve commercially viable lithium extraction and sustainable production of renewable energy;
- changes in the price of and demand for lithium hydroxide and renewable energy;
- technological developments that affect the demand for lithium hydroxide or methods of extraction;
- the significant capital amounts expected to be spent on the Zero Carbon Lithium™ Project;
- the Company's ability to successfully construct and execute the Zero Carbon Lithium™ Project and any delays in connection with the project;
- the Company's ability to raise the capital funding necessary to complete the development of the Zero Carbon Lithium™ Project, as well as the level of financing costs (including those related to variable interest rates) and other variables which underlie the economic analysis of the Zero Carbon Lithium™ Project;
- increases in market prices of power, consumables, labour and other exploration, development and operating costs required for the Group's operations;
- technological developments that affect the demand for lithium hydroxide or methods of extraction;
- resource estimates relating to Vulcan Group's current and future projects proving to be inaccurate;
- seismicity risks;
- risks related to obtaining required approvals, licences and permits for lithium and geothermal renewable energy production;
- opposition from local residents and other stakeholders, which may result in delays, additional costs, discontinuation of construction or operations and uncertainty;
- risks related to general economic conditions, credit availability, increase in interest rates and financing costs;
- inability to recruit or retain qualified personnel for key positions;
- the Group's risk management or compliance systems' inability to adequately prevent or detect legal, tax and operational risks;
- risks related to the successful integration of acquisitions;
- risks related to international operations;
- fluctuations in foreign currency exchange rates;
- possible variations in the quantity or grade of lithium reserves and geothermal resources;
- failure of plant, equipment or processes to operate as anticipated;
- accidents, labour disputes, supply chain risks (including as a result of COVID-19 and the Russia-Ukraine Conflict), difficulties with third-party suppliers, contractors or service providers, claims and limitations on insurance coverage and other risks of the mining industry; and
- changes in national and local government regulation of mining operations, tax rules and regulations, and political and economic developments in Germany and other countries in which the Group operates, and any difficulties or delays in obtaining necessary approvals and licences.

Accordingly, investors are strongly advised to consider this Offering Circular as a whole and, in particular, ensure that they have read the following sections of this Offering Circular: "*1. Risk Factors*", "*6. Management's Discussion and Analysis of Net Assets, Financial Position and Results of Operations*", "*8. Industry Overview*", "*9. Business*" and "*16. Recent Developments Outlook*".

Even if future results of the Company meet the expectations expressed herein, they may not be indicative of the results of any succeeding periods. Investors are cautioned not to place undue reliance on these forward-looking

statements (particularly in light of the current economic climate and significant volatility, uncertainty and disruption caused by the COVID-19 pandemic and the Russia-Ukraine Conflict).

The forward-looking statements contained in this Offering Circular speak only as of the date on which they were made. Investors are advised that neither the Company nor the Listing Agent nor the Underwriters nor their respective affiliates or representatives assume any obligation or intend to, except as required by law, publicly release any updates or revisions to these forward-looking statements to reflect any change in the Company's expectations with regard thereto or any change in events, conditions or circumstances on which any such statement is based or to adjust them in line with future events or developments.

AVAILABLE INFORMATION

The Company will, during any period in which it is not subject to Sections 13 or 15(d) of the Exchange Act, nor exempt from reporting pursuant to Rule 12g3-2(b) thereunder, furnish, upon request, to any holder or beneficial owner of New Shares, or any prospective investor designated by any such holder or beneficial owner, information satisfying the requirements of subsection (d)(4) of Rule 144A under the US Securities Act to permit compliance with Rule 144A in connection with resales of New Shares so long as any of the New Shares are "restricted securities" within the meaning of Rule 144(a)(3) under the US Securities Act.

ADDITIONAL RISK FACTORS RELEVANT TO INTERNATIONAL INVESTORS

In addition to the risk factors described in the section entitled "Risk Factors" in the Prospectus, US and other international investors should also carefully consider the following risks associated with an investment in New Shares and the Company when deciding whether to invest in the New Shares:

Shareholders in the United States and certain other jurisdictions may not be able to participate in future equity offerings

Securities laws of certain jurisdictions may restrict the Company's ability to allow participation by shareholders in future equity offerings. In particular, shareholders in the United States may not be entitled to participate in future equity offerings, unless either the Shares and any other securities that are offered and sold are registered under the US Securities Act, or the Shares and such other securities are offered pursuant to an exemption from, or in a transaction not subject to, the registration requirements of the US Securities Act. The Company cannot assure prospective investors that it will file any such registration statements, or that any exemption from such overseas securities law requirements would be available to enable US or other shareholders to participate in future offerings or, if available, that the Company will utilise any such exemption, each of which would result in shareholders in restricted jurisdictions being unable to participate in any such future issue. In addition, shareholders may not be able to participate in potential future capital measures if they do not have the funds necessary to subscribe for new securities or if the subscription rights are excluded. To the extent that the shareholder is not able to participate in future equity offerings, their proportional interests in the Company would be diluted. Open market purchases to counteract such dilution could be on terms less favorable than those offered to other shareholders in connection with such an equity offering.

Considerations arising from possible classification of the Company as a passive foreign investment company for US federal income tax purposes.

The Company does not expect to be classified as a "passive foreign investment company" or "PFIC" for US federal income tax purposes for the current tax year. In general, a non-U.S. corporation will be a PFIC for a taxable year if (1) 75% or more of its gross income constitutes passive income or (2) 50% or more of its assets produce or are held for the production of, passive income.

The Company's expectation is based on certain assumptions and expectations regarding its business activities and financial performance, including the levels of operating income generated by the Company and its subsidiaries, and interest income generated from debt investments, the Company's ability to use the proceeds from the Private Placement of New Shares in making investments in operating businesses and assets, and the timing thereof, market valuations of the New Shares, and foreign currency exchange rates. Potential investors should be aware that the Company is not able to predict or make any assurances as to levels of operating or interest income the Company may generate, timing for execution of its expansion plans or development of new projects or market valuations of Shares. Further, the Company is not obligated to conduct its affairs or operate in a manner that would avoid the Company being classified as a PFIC for the current or future tax years, and accordingly, the Company makes no assurances regarding its status as a PFIC for the current or future tax years.

Potential investors should consult with their tax advisors regarding the possibility of the Company being classified as a PFIC and the US federal income tax considerations arising from investing in a PFIC. If the Company is classified as a PFIC for US income tax purposes, a US holder of New Shares may be subject to adverse tax consequences, including a greater tax liability than might otherwise apply, an interest charge on certain taxes deemed deferred, and additional US tax reporting obligations. For details see "*Certain United States Federal Income Tax Considerations – Passive Foreign Investment Company Rules*" below regarding the considerations of the Company's PFIC status for US Shareholders.

CERTAIN UNITED STATES FEDERAL INCOME TAX CONSIDERATIONS

This section describes certain US federal income tax consequences of owning and disposing of New Shares. It applies to you only if you acquire New Shares offered pursuant to this Private Placement and hold your New Shares as capital assets for US federal income tax purposes (generally, assets held for investment). This discussion addresses only US federal income taxation and does not discuss all of the tax consequences that may be relevant to you in light of your individual circumstances, including non-US, state or local tax consequences, estate and gift tax consequences, the Medicare contribution tax on net investment income or the alternative minimum tax, and considerations for taxpayers subject to section 451(b) of the US Internal Revenue Code. This section does not describe all of the tax consequences that may apply to you if you are a member of a special class of holders subject to special rules, including:

- a bank or other financial institution;
- a regulated investment company or real estate investment trust;
- a dealer in securities;
- a trader in securities that elects to use a mark-to-market method of accounting for securities holdings;
- a tax-exempt organization;
- a partnership or other pass-through entity, including an S-corporation;
- an insurance company;
- a person that actually or constructively owns 5% or more of the combined voting power of the Company's voting stock or of the total value of the Company's stock;
- a person that holds New Shares as part of a straddle or a hedging or conversion transaction;
- a person that purchases or sells New Shares as part of a wash sale for tax purposes;
- a person that will hold the New Shares as part of the business assets of a permanent establishment or a fixed base in Australia or for which a permanent representative has been appointed in Australia; or
- a US holder (as defined below) whose functional currency is not the US dollar.

This section is based on the Internal Revenue Code of 1986, as amended (the "**Code**"), its legislative history, existing and proposed regulations, published rulings and court decisions, as well as on the Convention between the United States and Australia (the "**Treaty**"), each as available and in effect on the date hereof. These authorities are subject to change, possibly on a retroactive basis.

If an entity or arrangement treated as a partnership for US federal income tax purposes holds New Shares, the US federal income tax treatment of a partner will generally depend on the status of the partner and the tax treatment of the partnership. Prospective purchasers that are entities or arrangements treated as partnerships for US federal income tax purposes, or partners in such partnerships, should consult their tax advisors with regard to the US federal income tax treatment of an investment in New Shares.

You are a **"US holder"** if you are a beneficial owner of New Shares and you are, for US federal income tax purposes:

- an individual who is a citizen or resident of the United States;
- a corporation (or any other entity treated as a corporation for US federal income tax purposes) created or organized in or under the laws of the United States or any state thereof, including the District of Columbia;
- an estate whose income is subject to US federal income tax regardless of its source; or
- a trust (i) that has a valid election in effect to be treated as a US person for US federal income tax purposes or (ii) if a US court can exercise primary supervision over the trust's administration and one or more US persons are authorized to control all substantial decisions of the trust.

A **"non-US holder"** is a beneficial owner of New Shares that is not a partnership or a US holder for US federal income tax purposes.

You should consult your own tax advisor regarding the US federal, state and local and other tax consequences of owning and disposing of New Shares in your particular circumstances.

Distributions

Subject to the PFIC rules discussed below, the gross amount of any distribution made to a US holder with respect to the New Shares generally will be includible in such US holder's income as dividend income to the extent such distribution is paid out of the Company's current or accumulated earnings and profits as determined under US federal income tax principles. You must include any Australian tax withheld from dividend payments in gross amount even though you do not in fact receive it. The dividend is taxable to you when you receive the dividend, actually or constructively. Distributions in excess of current and accumulated earnings and profits, as determined for US federal income tax purposes, will be treated as non-taxable returns of capital to the extent of your basis in the New Shares and thereafter as capital gains. The Company does not, however, expect to calculate earnings and profits in accordance with US federal income tax principles. Accordingly, although the treatment is not clear, you should expect generally to treat distributions by the Company as dividends.

If you are a non-corporate US holder, dividends that constitute qualified dividend income will be taxable to you at the preferential rates applicable to long-term capital gains, provided that you hold the New Shares for more than 60 days during the 121-day period beginning 60 days before the ex-dividend date and meet other holding period requirements. Dividends paid by the Company with respect to New Shares generally will be qualified dividend income, provided that, in the year that you receive the dividend, the Company is eligible for the benefits of the Treaty. The Company currently expects that it will be eligible for the benefits of the Treaty and the Company therefore expects that dividends on the New Shares will be qualified dividend income, but there can be no assurance that it will be eligible for the benefits of the Treaty in any particular taxable year. Dividends will not be eligible for the dividends-received deduction generally allowed to US corporations in respect of dividends received from other US corporations.

If you receive a dividend distribution in a currency other than the US dollar, the amount of the dividend distribution that you must include in your income as a US holder will be the US dollar value of the payments made, determined at the relevant spot exchange rate on the date the dividend distribution is to be included in your income, regardless of whether the payment is in fact converted into US dollars. Your tax basis in the foreign currency will equal the US dollar amount included in income. If you convert the foreign currency into US dollars at the applicable spot rate on the day you receive the dividend, you will generally not recognize a foreign currency gain or loss in respect of the dividend income. In general, any gain or loss resulting from currency exchange fluctuations between the applicable spot rate on the day you receive the dividend and the rate at which you convert the payment into US dollars will be treated as ordinary income or loss and will not be eligible for the special tax rate applicable to qualified dividend income. The gain or loss generally will be income or loss from sources within the United States for foreign tax credit limitation purposes. Subject to generally applicable limitations, including additional requirements imposed under recently issued final US Treasury regulations, Australian tax withheld at the appropriate rate in accordance with the Treaty and paid over to the appropriate taxing authority may be creditable or deductible against your US federal income tax liability. Dividends will generally be income from sources outside the United States and will generally be "passive category" income for purposes of computing the foreign tax credit allowable to you.

Special rules apply in determining the foreign tax credit limitation with respect to qualified dividends that are subject to the preferential tax rates for eligible non-corporate US holders. To the extent a reduction or refund of the tax withheld is available to you under Australian law or under the Treaty, the amount of tax withheld that could have been reduced or that is refundable will not be eligible for credit against your US federal income tax liability.

Capital Gains

Subject to the PFIC discussion below, US holders generally will recognize gain or loss on the sale, exchange or other disposition of the New Shares equal to the difference between the amount realized on such sale, exchange or other disposition and US holders' adjusted tax basis in your New Shares. Your tax basis in the New Shares will generally equal the US dollar value of the purchase price for the New Shares, determined on the date that you purchased such New Shares. Any such capital gains generally will be taxed at preferential rates if you are a non-corporate US holder and you hold the New Shares for more than one year. The gain or loss will generally be income or loss from sources within the United States for foreign tax credit limitation purposes. The deductibility of capital losses is subject to significant limitations.

A US holder that receives foreign currency on the disposition of New Shares will realize an amount equal to the US dollar value of the foreign currency received at the spot rate on the date of sale or, in the case of cash basis and electing accrual basis US holders, the settlement date. An accrual basis US holder that does not elect to determine the amount realized using the spot rate on the settlement date will recognize a foreign currency gain or loss equal to the difference between the US dollar value of the foreign currency received based on the spot exchange rates in effect on the date of sale or other disposal and the settlement date. A US holder will have a tax basis in the foreign currency received equal to the US dollar value of the foreign currency received on the settlement date. Any gain or loss on a subsequent conversion of the foreign currency for a different amount will generally constitute US source ordinary income or loss.

Passive Foreign Investment Company Rules

The Company does not expect to be classified as a "passive foreign investment company" or "PFIC" for US federal income tax purposes for the current tax year. If the Company is classified as a PFIC, US holders owning shares of a PFIC are subject to special rules that could result in adverse US federal income tax consequences. A corporation organized outside the United States generally will be classified as a PFIC for US federal income tax purposes in any taxable year in which, after applying certain look-through rules, either: (i) at least 75 percent of its gross income is "passive income"; or (ii) on average, at least 50 percent of the gross value of its assets is attributable to assets that produce "passive income" or are held for the production of passive income. Passive income for this purpose generally includes dividends, interest, royalties, rents, annuities, the excess of gains over losses from commodities and securities transactions, and the excess of gains over losses from the disposition of assets that produce passive income. For the purposes of applying the foregoing tests, a company's proportionate share of the assets and gross income of the company's 25 percent or greater owned direct and indirect subsidiaries are attributed to the company.

The Company's expectation is based on certain assumptions and expectations regarding its business activities and financial performance, including the levels of operating income generated by the Company and its subsidiaries, and interest income generated from debt investments, the Company's ability to use the proceeds from the Private Placement of New Shares in making investments in operating businesses and assets, and the timing thereof, market valuations of the New Shares, and foreign currency exchange rates. Potential investors should be aware that the Company is not able to predict or make any assurances as to levels of operating or interest income the Company may generate, timing for execution of its expansion plans or development of new projects or market valuations of Shares. Further, the Company is not obligated to conduct its affairs or operate in a manner that would avoid the Company being classified as a PFIC for the current or future tax years, and accordingly, the Company makes no assurances regarding its status as a PFIC for the current or future tax years.

If a corporation is a PFIC at any time during a shareholder's holding period, it will continue to be treated as a PFIC with respect to such shareholder in future years regardless of whether it satisfied either of the qualification tests in such future years, unless the shareholder makes an election to purge the PFIC status.

If the Company is classified as a PFIC for US federal income tax purposes, a US holder of the Company generally would be subject to special rules (regardless of whether the Company continued to be a PFIC) with respect to: (i) any "excess distribution" (generally, distributions received by the US holder in a taxable year in excess of 125 per cent. of the average annual distributions received by that US holder in the three preceding taxable years, or, if shorter, the Shareholder's holding period); and (ii) any gain realized on the sale or other

disposition of New Shares. Under these rules: (i) the excess distribution or gain would be allocated ratably over the US holder's holding period; (ii) the amount allocated to the current taxable year and any taxable year prior to the first taxable year in which the Company was a PFIC would be taxed as ordinary income; and (iii) the amount allocated to each other taxable year would be subject to US federal income tax at the highest rate of tax in effect for the taxpayer for that year, plus an interest charge on the amount of tax deemed to be deferred. The balance of the gain or the excess distribution would be treated as ordinary income in the taxable year of the disposition or distribution. Additionally, dividends will not be eligible for the dividends received deduction generally allowed to US corporations or for the preferential tax rate applicable to qualified dividend income received by individuals and certain other non-corporate persons.

To the extent the Company's subsidiaries are also PFICs, a US holder will be deemed to own a proportionate amount of Shares in such lower-tier PFICs that are directly or indirectly owned by the Company, and such US holder may be subject to the adverse tax consequences described above with respect to the Shares of such lower-tier PFICs that it would be deemed to own. US holders should consult their tax advisors regarding the application of the PFIC rules to any of the Company's subsidiaries.

If the Company is classified as a PFIC for US federal income tax purposes, and if the New Shares are "regularly traded" on a "qualified exchange", a US holder may be able to avoid the interest charge and excess distribution rules described above by making a mark-to-market election with respect to their Shares. The Shares will be treated as "regularly traded" in any calendar year in which more than a de minimis quantity of Shares are traded on a qualified exchange on at least 15 days during each calendar quarter. A "qualified exchange" includes a foreign securities exchange that is regulated by a governmental authority in which the market is located and with respect to which certain other requirements are met. The Company makes no representation that the New Shares will be treated as "regularly traded" on a "qualified exchange" for this purpose, or that the mark-to-market election will be available to US holders.

If a US holder is eligible to make, and does make, a mark-to-market election, then for each year in which the Company is a PFIC, the holder will include as ordinary income the excess, if any, of the fair market value of the New Shares at the end of the taxable year over their adjusted tax basis, and will be permitted an ordinary loss in respect of the excess, if any, of the adjusted tax basis of the New Shares over their fair market value at the end of the taxable year (but only to the extent of the net amount of previously included income as a result of the mark-to-market election). If a US holder makes a valid mark-to-market election, its tax basis in the New Shares will be adjusted to reflect any such income or loss amounts. Any gain recognized on the sale or other disposition of New Shares (including the indirect disposition of any underlying PFIC interests upon the issuance of additional New Shares) will be treated as ordinary income, and any losses incurred on a sale or other disposition of the New Shares will be treated as an ordinary loss to the extent of any net mark-to-market gains previously included. Any remaining loss on the sale of New Shares will be treated as a capital loss. Once made, the election cannot be revoked without the consent of the IRS unless the New Shares cease to be marketable. If the Company is a PFIC for any year in which the US holder owns New Shares but before a mark-to-market election is made, the interest charge rules described above will apply to any mark-to-market gain recognized in the year the election is made. Because a mark-to-market election cannot be made for equity interests in any lower-tier PFICs the Company owns, a US holder may continue to be subject to the interest charge and excess distribution rules with respect to its indirect interest in any investments held by the Company that are treated as an equity interest in a PFIC for US federal income tax purposes. US holders should consult their tax advisors as to the availability and desirability of a mark-to-market election, as well as the impact of such election on interests in any lower-tier PFICs.

The adverse PFIC tax treatment discussed above may also generally be avoided if a US holder is able to make a qualified electing fund ("**QEF**") election with respect to shares owned in a PFIC. A QEF election may only be made by a US holder if the Company provides such holder with certain information. The Company does not expect to make such information available and US holders should assume that they will not be able to make a QEF Election with respect to their New Shares.

If a US holder owns New Shares during any year in which the Company is a PFIC, the US holder must file IRS Form 8621. Failure to file Form 8621 may subject US holders to material penalties. US holders are urged to consult their own tax advisers concerning the tax considerations and reporting requirements relevant to an investment in a PFIC, including the availability and related tax considerations of making any elections discussed above.

Foreign Asset Reporting

A US holder that owns "specified foreign financial assets" with an aggregate value exceeding \$50,000 (and in some circumstances, a higher threshold) may be required to file an information report with respect to such

assets with its tax return. "Specified foreign financial assets" may include financial accounts maintained by foreign financial institutions, as well as the following, but only if they are held for investment and not held in accounts maintained by financial institutions: (i) stocks and securities issued by non-US persons, such as the New Shares, (ii) financial instruments and contracts that have non-US issuers or counterparties, and (iii) interests in foreign entities.

Significant penalties may apply for failing to satisfy this filing requirement US holders are urged to contact their tax advisors regarding the application of this filing requirement to their ownership of New Shares.

Backup Withholding and Information Reporting

If you are a non-corporate US holder, information reporting requirements, on IRS Form 1099, generally will apply to dividend payments or other taxable distributions made to you within the United States, and the payment of proceeds to you from the sale of New Shares effected at a US office of a broker.

In addition, backup withholding may apply to such payments if you fail to comply with applicable certification requirements or (in the case of dividend payments) are notified by the IRS that you have failed to report all interest and dividends required to be shown on your federal income tax returns.

If you are a non-US holder, you are generally exempt from backup withholding and information reporting requirements with respect to dividend payments made to you outside the United States by the Company or another non-US payor. You are also generally exempt from backup withholding and information reporting requirements in respect of dividend payments made within the United States and the payment of the proceeds from the sale of New Shares effected at a US office of a broker, as long as either (i) you have furnished a valid IRS Form W-8 or other documentation upon which the payor or broker may rely to treat the payments as made to a non-US holder, or (ii) you otherwise establish an exemption.

Payment of the proceeds from the sale of New Shares effected at a foreign office of a broker generally will not be subject to information reporting or backup withholding. However, a sale effected at a foreign office of a broker could be subject to information reporting in the same manner as a sale within the United States (and in certain cases may be subject to backup withholding as well) if (i) the broker has certain connections to the United States, (ii) the proceeds or confirmation are sent to the United States or (iii) the sale has certain other specified connections with the United States.

You generally may obtain a credit or refund of any amounts withheld under the backup withholding rules that exceed your income tax liability by timely filing a claim with the IRS and furnishing any required information..



Prospectus

dated 4 May 2023

for the admission to trading on the regulated market segment (*Regulierter Markt*) of the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*) with simultaneous admission to the sub-segment of the regulated market with additional post-admission obligations (Prime Standard)

of

21,400,000 newly issued ordinary shares from a capital increase against cash contributions resolved by the Board of Directors on 3 May 2023

of

Vulcan Energy Resources Limited

Perth, Australia

(Registered in Australia under the Corporations Act 2001 (Cth))

Australian Company Number (ACN): 624 223 132

International Securities Identification Number (ISIN): AU0000066086

German Securities Code (*Wertpapierkennnummer, WKN*): A2PV3A

Trading Symbol: VUL

Warning regarding the validity of the Prospectus

The validity of this Prospectus will expire at the end of 15 May 2023. The obligation to supplement the Prospectus in the event of significant new factors, material mistakes or material inaccuracies does not apply when the Prospectus is no longer valid.

This document does not constitute a prospectus or disclosure document for the purposes of the Corporations Act 2001 (Cth) of Australia.

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I. SUMMARY

1. SUMMARY OF THIS PROSPECTUS

1.1 Introduction and warnings

Name and international securities identification number (ISIN) of the securities - This prospectus (the "**Prospectus**") relates to the admission to trading on the regulated market (*Regulierter Markt*) of the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*) ("**FSE**") with simultaneous admission to the sub-segment of the regulated market with additional post-admission obligations (Prime Standard) (the "**Admission to Trading**") of 21,400,000 newly issued ordinary shares of Vulcan Energy Resources Limited ("**New Shares**", together with the existing ordinary shares of the Company, the "**Shares**") with the International Securities Identification Number ("**ISIN**") AU0000066086.

Identity and contact details of the issuer, including its legal entity identifier (LEI) - The issuer of the New Shares is Vulcan Energy Resources Limited, headquartered in Perth, Australia (registered office: Level 2, 267 St Georges Terrace, Perth WA 6000, Telephone: +61 8 6189 8767, website: www.v-er.eu), legal entity identifier ("**LEI**") 8945006OYFHQ9HE4XE54 (hereinafter the "**Company**" and together with its consolidated subsidiaries, "**Vulcan Group**").

Identity and contact details of the person asking for admission to trading on a regulated market, including its legal entity identifier (LEI) - The Company and BofA Securities Europe SA (51 rue La Boétie, 75008, Paris, France, LEI: 549300FH0WJAPHTIQ77 ("**BofA Securities**" or the "**Listing Agent**") have applied for the Admission to Trading.

Identity and contact details of the competent authority approving the Prospectus and date of the approval of the Prospectus - This Prospectus has been approved by the German Federal Financial Supervisory Authority (*Bundesanstalt für Finanzdienstleistungsaufsicht* - "**BaFin**"), Marie-Curie-Straße 24-28, 60439 Frankfurt am Main, Germany, tel.: +49 228 4108 0, www.bafin.de, on 4 May 2023. BaFin only approves this Prospectus as meeting the standards for completeness, comprehensibility and consistency imposed by Regulation (EU) 2017/1129 of the European Parliament and of the Council of 14 June 2017 on the prospectus to be published when securities are offered to the public or admitted to trading on a regulated market, and repealing Directive 2003/71/EC, as amended ("**Prospectus Regulation**").

Warnings - This summary (the "**Summary**") should be read as an introduction to this Prospectus. Any decision to invest in the securities should be based on a consideration of the Prospectus as a whole by the investor. The investor could lose all or part of the invested capital. Where a claim relating to the information contained in the Prospectus is brought before a court, the plaintiff investor might, under national law, have to bear the costs of translating the Prospectus before the legal proceedings are initiated. Civil liability attaches only to those persons who have tabled the Summary including any translation thereof, but only where the Summary is misleading, inaccurate or inconsistent when read together with the other parts of the Prospectus, or where it does not provide, when read together with the other parts of the Prospectus, key information in order to aid investors when considering whether to invest in such securities.

1.2 Key information on the issuer

1.2.1 Who is the issuer of the securities?

Issuer Information - The issuer is Vulcan Energy Resources Limited, a public company limited by shares incorporated in Australia under the Corporations Act 2001 (Cth) of Australia ("**Australian Corporations Act**") with registered office at Level 2, 267 St Georges Terrace, Perth WA 6000, Australia, and governed by the laws of Australia. The Company is admitted to the official list of ASX Limited ("**ASX**") and the Company's existing shares are quoted on the securities exchange operated by ASX and admitted to trading on the regulated market (*Regulierter Markt*) of the FSE with simultaneous admission to the sub-segment of the regulated market with additional post-admission obligations (Prime Standard) under the ticker code "VUL". The Company's LEI is 8945006OYFHQ9HE4XE54 and its Australian Company Number ("**ACN**") is 624 223 132.

Principal Activities - The Company is the parent company of Vulcan Group. As the parent company of Vulcan Group, the Company performs certain group management functions including strategic planning and public relations. Vulcan Group is an Australian headquartered lithium battery chemicals and renewable energy group with a clear goal to become the world's first lithium chemicals and renewable energy producer with a net zero carbon footprint. With its Zero Carbon Lithium™ Project, Vulcan Group intends to combine the operations of extracting lithium-rich geothermal brines in the Upper Rhine Valley of Germany, of upgrading lithium through electrolysis to a high purity lithium hydroxide monohydrate ("**LHM**") (Vulcan Group's lithium business), and of producing geothermal energy (Vulcan Group's renewable energy business) (the "**Zero Carbon Lithium™ Project**"). Vulcan Group's long-term target is to produce enough LHM for 1 million battery electric vehicles ("**BEVs**") per annum while contributing a reduction of 1 million tonnes of CO₂ emissions per annum, and to produce renewable heat for more than 1 million people by 2030. Vulcan Group's Zero Carbon Lithium™ Project intends to produce a battery-quality lithium chemical product from its combined geothermal renewable energy and lithium resource located in the Upper Rhine Valley, which is estimated to be Europe's largest lithium resource (based on lithium-focused peers in Europe with comparable project size at a comparable stage of development and published resource information), as estimated and reported in accordance with the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("**JORC Code**") (source: Vulcan Energy Resources Ltd, Vulcan Zero Carbon Lithium™ Project Phase One DFS Results and Resources-Reserves Update, ASX Release, 13 February 2023). Vulcan Group aims to supply the BEV market in Europe, which is among the fastest growing in the world, and is currently reliant on imports of lithium chemicals given the lack of domestic supply. The Zero Carbon Lithium™ Project has also been designed from its inception to help decarbonise the German electrical and local heating grids and lithium supply chain simultaneously and has the lowest planned carbon footprint in the lithium industry compared to any previously published life cycle assessment results (source: Fastmarkets, Lithium Market Study – 2022,

October 2022, prepared for Vulcan Energy Resources Limited). An essential part of the Zero Carbon Lithium™ Project involves the use of thermal water as the principal heat source to drive the lithium extraction, which means that lithium is expected to be extracted from the brine with a net zero carbon footprint without polluting the environment with waste material or toxic substances prior to the brines being re-injected in a closed loop, circular system.

In order to advance its lithium and geothermal exploration activities as well as its renewable energy business, Vulcan Group has undertaken several strategic acquisitions in Germany within the last two years. In particular, Vulcan Group acquired two geothermal engineering companies in July 2021, which has brought significant surface and sub-surface geothermal operating expertise into Vulcan Group, and in December 2021, Vulcan Group acquired Pfalzwerke geofuture GmbH (renamed Natürlich Insheim GmbH), a company that owns and operates a geothermal renewable energy plant and has a geothermal exploitation licence for the property of the plant site in Insheim, Germany. Moreover, in November 2021, the Company acquired two electric drill rigs as part of Vulcan Group's Zero Carbon Lithium™ Project which can drill to the target depth required for deep geothermal energy wells in the Upper Rhine Valley of Germany. In January 2023, the Company acquired Comeback Personaldienstleistungen GmbH ("**Comeback**") through Vulcan Energie Ressourcen GmbH ("**Vulcan Energie**"), the Company's direct subsidiary in Germany, to insource drilling personnel capabilities.

Vulcan Group holds 16 exploration licences in the Upper Rhine Valley of Germany for areas within the German states of Baden-Württemberg, Rheinland-Pfalz and Hessen, as well as a geothermal exploitation licence at the Insheim geothermal plant bringing the total licence area to over 1,583 km². In addition, Vulcan Group has applied for an exploration licence in the French region "Les Cigognes", covering an area of 155 km² (15,500 hectares) east of the city of Haguenau, France. An exploration licence is needed for exploring freely mineable resources, and an exploitation licence (also referred to as a production licence) gives the right to extract freely mineable resources. Vulcan Group is currently at the exploration and development stage and is targeting commencement of commercial production at year-end 2025, capitalising on its proprietary method for the manufacture of battery-grade LHM with a net zero carbon footprint.

As of the date of this Prospectus, Vulcan Group has entered into binding agreements for the sale of battery grade LHM (referred to as lithium offtake agreements) with Umicore N.V., Renault Group, Stellantis N.V. ("**Stellantis**"), Volkswagen AG and LG Energy Solutions for initial five-year, six-year or ten-year periods, as applicable, with commercial delivery scheduled to commence between 2026 or 2027, as applicable. Together, the volumes of LHM to be delivered under these agreements correspond to the entire expected quantity of the first five years of production from Vulcan Group's Zero Carbon Lithium™ Project. It is anticipated that the volumes of LHM to be delivered under these lithium offtake agreements will be supplied from a phased expansion of production from the Zero Carbon Lithium™ Project, as specified in Vulcan Group's definitive feasibility study for Phase One ("**DFS**"). Pursuant to the DFS, a first phase includes the construction of two geothermal plants, two lithium extraction plants ("**LEP**") and a central lithium plant ("**CLP**"), currently targeting a commercial production start at year-end 2025, and aims for an annual production target of approximately 24,000 metric tonnes of LHM as well as more than 300 gigawatt hours ("**GWh**") of renewable power and more than 250 GWh of renewable heat produced upon its completion ("**Phase One**"). While the DFS for Phase One envisions that Phase One would include the construction of two geothermal plants and two LEPs (in addition to the CLP), Vulcan Group is currently pursuing a number of value improvements during the ongoing bridging engineering work with Hatch Ltd with the goal of consolidating these into one geothermal plant and one LEP (in addition to the CLP) while targeting the same level of production as envisioned in the DFS. Phase One is planned to be followed by a second phase of the Zero Carbon Lithium™ Project ("**Phase Two**"), currently targeting a commercial production start in 2026/27, and targets to achieve similar production levels as, and in addition to those of Phase One, subject to the completion of a definitive feasibility study for Phase Two (expected during the course of 2023). Vulcan Group intends to plan further phases across Vulcan Group's licence area, as Vulcan Group plans to grow production in a staged, modular fashion. In November 2021, Vulcan Group entered into a binding brine offtake agreement with geox GmbH ("**geox**"), an operator of a geothermal power plant in Landau in der Pfalz, Germany, regarding the provision to Vulcan Group of brine from the geothermal plant operated by geox for the purpose of extracting the lithium contained in the brine over an initial term of 20 years with an earliest offtake start date of 30 December 2024. In addition to selling LHM as part of its lithium business, Vulcan Group also plans to offer to sell renewable heat to local municipalities and businesses and to sell electricity to the grid as part of its renewable energy business. In April 2022, the Company entered into a binding heat offtake agreement with MVV Energie AG ("**MVV Energie**") to sell to MVV Energie between 240,000 MWh and 350,000 MWh of renewable heat per year to supply households in Mannheim, Germany. Delivery is targeted to commence in 2025 with an initial term of 20 years. In January 2023, the Company signed a phased project agreement with Stellantis, aimed at developing, building, and operating geothermal renewable energy assets to help decarbonise the energy supply for Stellantis' operations in Rüsselsheim, Germany, by providing renewable heat.

Vulcan Group believes that the following competitive strengths will allow it to execute its business strategy and will set it apart from its competitors in the future:

- Clear goal and strategy built around implementing the world's first net zero carbon footprint lithium production project;
- Well-positioned to capitalise on the expected dynamic transition to electric mobility and renewable energy in Europe, through the ability to offer a sustainable lithium product from its Zero Carbon Lithium™ Project;
- Business model with dual revenue sources through its lithium and renewable energy business that also provides potential for a degree of insulation from energy price fluctuations;

- Strategically located and scalable lithium raw materials resource, estimated by the Company to be the largest lithium resource in Europe;
- Potential to be a low operating cost lithium business, according to Vulcan Group's DFS for Phase One;
- Experienced and committed international management and execution team;
- Dedicated "Vulcan Values" shape the Company's culture and inform the Company's strategy; and
- Access to capital markets, proven ability to obtain funding to execute its business strategy and to implement the Zero Carbon Lithium™ Project and distinct international profile.

In order to achieve becoming the world's first lithium chemicals and renewable energy producer with a net zero carbon footprint, Vulcan Group has adopted a strategy designed to capitalise on its competitive strengths. The key elements of Vulcan Group's strategy are as follows:

- Ensure local support from stakeholders for the Zero Carbon Lithium™ Project;
- Grow the business by investing in the expansion of Vulcan Group's team;
- Build-out in a modular fashion to accelerate growth and minimise disruption by capitalising on the team's experience during project execution;
- Further improve Vulcan Group's research, development and innovation capabilities;
- Continue to develop solid and long-term customer relationships and strong ties with the latest developments in lithium end-markets;
- Develop next generation lithium compounds and advance circular economy approaches to lithium, in line with Vulcan Group's core sustainability values; and
- Become a long-term renewable energy partner to the German and European economy.

Major Shareholders – As of the date of this Prospectus*, the following individuals/entities (in aggregate with their associates) have a direct or indirect interest in 3% or more of the Shares:

- Dr Francis Wedin (15,646,061 Shares, being approximately 10.91%) and Dr Francis Wedin and Katy Wedin (812,500 Shares, being approximately 0.57%)(¹)
- Stellantis N.V. (11,448,959 Shares, being approximately 7.98%)(²)
- Ms. Joanne Ellen Rezos (7,598,727 Shares, being approximately 5.30%)(³)
- Hancock Prospecting Pty Ltd ("HPPL") and subsidiaries of HPPL (7,424,534 Shares, being approximately 5.18%)(⁴)
- Mr John Langley Hancock (5,070,000 Shares, being approximately 3.53%)

* Prior to the completion of the Private Placement (as defined below), with issuance and settlement of the New Shares expected to occur on 12 May 2023.

- (1) The Shares in which Dr Francis Wedin and Katy Wedin hold an (indirect) interest comprise 812,500 Shares held by Magni Associates Pty Ltd. Katy and Francis Wedin are the directors of Magni Associates Pty Ltd and it is 100% owned by Wedin Pty Ltd as trustee for the Wedin Family Trust.
- (2) The Shares in which Stellantis N.V. holds an (indirect) interest are held through PSA Automobiles S.A.
- (3) The Shares in which Ms. Joanne Ellen Rezos holds an (indirect) interest are held through Vivien Enterprises Pte Ltd. Ms. Joanne Ellen Rezos is the spouse of Mr Gavin Rezos (non-executive chairman of the Company) and Vivien Enterprises Pte Ltd is an associate of Mr Gavin Rezos.
- (4) Each of Georgina Hope Rinehart and Bianca Hope Rinehart (in her capacity as trustee of the Hope Margaret Hancock Trust) has greater than 20% of the voting power in HPPL.

Board of Directors – As of the date of this Prospectus the members of the Company's board of directors (the "**Board of Directors**") and its members the "**Directors**") are Mr Gavin Rezos (Non-Executive Chairman), Dr Francis Wedin (Managing Director/CEO), Ms Annie Liu (Non-Executive Director), Dr Heidi Grön (Non-Executive Director), Ms Josephine Bush (Non-Executive Director), Ms Ranya Alkadamani (Non-Executive Director), Dr Günter Hilken (Non-Executive Director) and Mr Mark Skelton (Non-Executive Director).

Statutory Auditors – The Company's statutory auditor is RSM Australia Partners, Level 32, 2 The Esplanade, Perth WA 6000, Australia ("**RSM**").

1.2.2 What is the key financial information regarding the issuer?

The following financial information is taken or derived from the audited consolidated financial statements of the Company prepared in accordance with Australian Accounting Standards and Interpretations ("**AAS**") issued by the Australian Accounting Standards Board ("**AASB**") and the Australian Corporations Act as of and for the short (six month) financial year ended 31 December 2022 (the "**Consolidated Short Financial Year Financial Statements 2022**"), the audited consolidated annual financial statements of the Company prepared in accordance with AAS and the Australian Corporations Act as of and for the financial year ended 30 June 2022 (the "**Consolidated Annual Financial**").

Statements 2022"), the audited consolidated annual financial statements of the Company prepared in accordance with AASI and the Australian Corporations Act as of and for the financial year ended 30 June 2021 (the "**Consolidated Annual Financial Statements 2021**") and the audited consolidated annual financial statements of the Company prepared in accordance with AASI and the Australian Corporations Act as of and for the financial year ended 30 June 2020 (the "**Consolidated Annual Financial Statements 2020**" and, together with the Consolidated Short Financial Year Financial Statements 2022, the Consolidated Annual Financial Statements 2022 and the Consolidated Annual Financial Statements 2021, the "**Consolidated Financial Statements**"). The Consolidated Financial Statements comply with International Financial Reporting Standards ("**IASB IFRS**") as developed and published by the International Accounting Standards Board ("**IASB**"). According to Art. 1 a) of the Commission Decision of 12 December 2008 (2008/961/EC), IASB IFRS are to be regarded as equivalent to the IFRS adopted under Regulation (EC) No 1606/2002, provided that the notes to the audited financial statements contain an explicit and unreserved statement that these financial statements comply with "International Financial Reporting Standards in accordance with IAS 1 Presentation of Financial Statements". The Consolidated Financial Statements were audited by RSM, who in each case issued an unqualified independent audit report thereon. In 2022, the Company changed its financial year end from 30 June to 31 December. As a consequence, the short financial year ended 31 December 2022 consists of the six month period from 1 July 2022 to 31 December 2022 and therefore is not fully comparable with the prior financial years of the Company, which cover 12-month periods.

Through the end of the financial year ended 30 June 2021, Vulcan Group's presentational currency was the Australian dollar. With effect from the financial year ended 30 June 2022, Vulcan Group's presentational currency is euro. Therefore, the financial information for the financial year ended 30 June 2022 and the short financial year ended 31 December 2022 is presented in euro, and is therefore not directly comparable with the financial information for the financial years ended 30 June 2020 and 2021, which is presented in Australian dollars.

1.2.2.1 Selected financial information from the consolidated statements of profit or loss

	Short financial year ended 31 December	Financial year ended 30 June		
	2022 EUR	2022 EUR	2021 A\$	2020 A\$
	(audited)	(audited)	(audited)	(audited)
Revenue from continuing operations	3,622,000	3,799,000	-	-
Other income	213,000	317,000	510,864 ⁽¹⁾	50,000 ⁽¹⁾
Finance income	615,000	350,000	120,678	45,342
Loss before income tax benefit/expense ...	(13,553,000)	(18,486,000)	(10,744,614)	(3,553,359)
Total comprehensive loss for the period attributable to the owners of Vulcan Energy Resources Limited	(15,098,000)	(11,861,000)	(10,844,607)	(3,575,375)

⁽¹⁾ Excludes finance income of A\$ 120,678 in the financial year ended 30 June 2021 and of A\$ 45,342 in the financial year ended 30 June 2020 which are included in the line item "other income" in the Consolidated Annual Financial Statements 2021 and 2020, respectively, but are presented separately in this table to enhance comparability with the financial year ended 30 June 2022 and the short financial year ended 31 December 2022. Since the financial year ended 30 June 2022, Vulcan Group presents finance income separately from "other income".

1.2.2.2 Selected financial information from the consolidated statements of financial position

	Short financial year ended 31 December	Financial year ended 30 June		
	2022 EUR	2022 EUR	2021 A\$	2020 A\$
	(audited)	(audited)	(audited)	(audited)
Total assets	250,135,000	261,140,000	131,744,081	9,107,961
Total liabilities	16,974,000	13,817,000	2,759,534	221,922
Total equity	233,161,000	247,323,000	128,984,547	8,886,039

1.2.2.3 Selected financial information from the consolidated statements of cash flow

	Short financial year ended 31 December	Financial year ended 30 June		
	2022 EUR	2022 EUR	2021 A\$	2020 A\$
	(audited)	(audited)	(audited)	(audited)
Net cash provided by (used in) operating activities.....	(7,418,000)	(11,347,000)	(2,841,145)	(1,332,049)

Net cash provided by (used in) investing activities.....	(31,768,000)	(64,358,000)	(7,145,227)	(1,218,732)
Net cash provided by (used in) financing activities.....	(462,000)	172,054,000	118,267,924	5,645,765

1.2.2.4 Alternative Performance Measures

The following financial measures are alternative performance measures defined in the guidelines issued by the European Securities and Markets Authority on October 5, 2015 on Alternative Performance Measures and should not be viewed as an alternative to the equivalent IASB IFRS or IFRS financial measures.

	Short financial year ended 31 December	Financial year ended 30 June		
	2022	2022	2021	2020
	EUR	EUR	A\$	A\$
	(unaudited)	(unaudited)	(unaudited)	(unaudited)
Capital expenditure ⁽¹⁾	30,704,000	67,926,000	7,239,989	1,209,224
EBITDA ⁽²⁾	(11,692,000)	(16,052,000)	(10,733,770)	(3,598,701)

⁽¹⁾ Capital expenditure includes investment in tangible and intangible assets.

⁽²⁾ EBITDA is defined as earnings before interest, taxes, depreciation and amortization.

1.2.2.5 Selected financial information from the pro forma financial statements

Vulcan Energie acquired Comeback in January 2023. The acquisition of Comeback is hereinafter referred to as the "**Acquisition**".

As the Company expects the Acquisition to have a material impact on the net assets, financial position, and results of operations of the Company, the Company has prepared pro forma financial information, comprising a pro forma statement of financial position as of 31 December 2022 and a pro forma statement of profit or loss for the period from 1 July 2022 to 31 December 2022 as well as accompanying pro forma notes (together "**Pro Forma Financial Information**"). The Pro Forma Financial Information was prepared on the basis of the IDW Accounting Practice Statement: Preparation of Pro Forma Financial Information (IDW AcPS AAB 1.004) (*IDW Rechnungslegungshinweis: Erstellung von Pro-Forma-Finanzinformationen (IDW RH HFA 1.004)*), as promulgated by the Institute of Public Auditors in Germany (*Institut der Wirtschaftsprüfer in Deutschland e.V. – IDW*) and in accordance with the ESMA Guidance on disclosure requirements under the Prospectus Regulations issued on 4 March 2021.

The purpose of the Pro Forma Financial Information is to show the material effects that the Acquisition would have had on the consolidated statement of profit or loss of Vulcan Group as if the Acquisition had taken place on 1 July 2022 and the statement of financial position of Vulcan Group as if the Acquisition were in effect as of 31 December 2022.

1.2.2.5.1 Selected financial information from the pro forma statement of profit or loss

Six-month period from 1 July 2022 to 31 December 2022	Vulcan Energy Resources Limited	Acquisition of Comeback Personaldienstleistungen GmbH	Pro Forma Financial Information
	EUR	EUR	EUR
	(audited)	(unaudited)	(unaudited)
Revenue from continuing operations	3,622,000	2,275,000	5,472,000
Other income	213,000	51,000	282,000
Finance income	615,000	-	615,000
Profit/(loss) before income tax	(13,553,000)	7,000	(13,597,000)
Total comprehensive income/(loss) attributable to the owners of Vulcan Energy Resources Limited	(15,098,000)	9,000	(15,125,000)

1.2.2.5.2 Selected financial information from the pro forma statement of financial position

As of 31 December 2022	Vulcan Energy Resources Limited	Acquisition of Comeback Personaldienstleistungen GmbH	Pro Forma Financial Information
	EUR	EUR	EUR
	(audited)	(unaudited)	(unaudited)
Total assets	250,135,000	611,000	250,905,000

Total liabilities	16,974,000	587,000	17,752,000
Total equity	233,161,000	24,000	233,153,000

1.2.3 What are the key risks that are specific to the issuer?

- Battery raw materials and geothermal energy exploration and development are high-risk undertakings and there is no assurance that Vulcan Group's exploration activities will result in the commercial extraction of lithium or sustainable production of geothermal renewable energy.
- General demand for lithium may decrease as a result of new market or technological developments and other factors. Any such factors resulting in a decrease in the general demand for lithium may have a detrimental effect on Vulcan Group's business.
- Significant future funding will be required by Vulcan Group to support the further implementation of its Zero Carbon Lithium™ Project. If Vulcan Group is unable to obtain additional financing as needed on acceptable terms or at all, it may need to abandon its development plans or reduce and/or change their scope which may, in turn, adversely affect Vulcan Group's operations.
- Vulcan Group's estimated exploration, development and operating costs are based on certain assumptions and no assurance can be given that Vulcan Group's cost estimates and the underlying assumptions to extract lithium chemicals from brine and renewable geothermal energy on commercially viable terms will be realised in practice.
- Vulcan Group, with its limited operating history as an exploration and development business, has incurred operating losses since its incorporation. No assurance can be given that Vulcan Group will achieve commercial viability through its projects. Until Vulcan Group is able to realise value from its projects, it will not generate revenues from the production and sale of lithium and is likely to continue to incur ongoing operating losses.
- The resource estimates relating to Vulcan Group's current and future projects are subject to certain assumptions and interpretations which may prove to be inaccurate. Any material deviations may result in alterations to development plans which may, in turn, adversely affect Vulcan Group's operations.
- Vulcan Group's geothermal projects are subject to seismicity risks.
- There is no guarantee that Vulcan Group will be able to obtain all required approvals, licences and permits for lithium and geothermal renewable energy production in time or at all.
- Vulcan Group's projects may face opposition from local residents and other stakeholders, which may result in delays, additional costs, discontinuation of construction or operations and uncertainty.
- As it is envisaged to incur significant debt in the future, an increase in interest rates would likely increase Vulcan Group's costs for its future debt financing arrangements.
- Lithium prices are subject to unpredictable fluctuations, driven in part by changes in the balance of global supply and demand as well as international, economic and geopolitical trends and developments. Any decrease or significant volatility in the price of or demand for lithium could have a detrimental effect on Vulcan Group's business.
- Vulcan Group may lose its directors or other key personnel or may be unable to recruit or retain qualified personnel for key positions. Without such directors or key personnel Vulcan Group may not be able to successfully manage, develop and operate its business.
- Vulcan Group's risk management or compliance systems may not have been, or may not be, sufficient to adequately prevent or detect legal, tax and operational risks.

1.3 Key information on the securities

1.3.1 What are the main features of the securities?

Number and Nature of Shares - As of the date of this Prospectus, 143,435,301 existing Shares are outstanding. 21,400,000 additional Shares (being the New Shares) will be issued from a capital increase against contribution in cash resolved by the Board of Directors on 3 May 2023. All of the Shares are fully paid ordinary shares.

ISIN and Denomination - The ISIN of the Shares is AU0000066086 and the Shares are denominated in Australian dollars (A\$).

Rights Attached to the Shares and Transferability - All Shares are governed by the Company's constitution, the Australian Corporations Act, the ASX Listing Rules and Australian general law. All Shares carry full dividend rights. Each Share carries one vote at the Company's shareholders' meeting. The Shares are freely transferable, subject to formal requirements, applicable securities laws in overseas jurisdictions, the registration of the transfer not resulting in a contravention of or failure to observe the provisions of a law of Australia and the transfer not being in breach of either the Australian Corporations Act or the ASX Listing Rules. In the case of insolvency, a person's liability as a shareholder is limited to any amount unpaid on their Shares.

Dividend Policy - The Company does not intend to pay dividends for the foreseeable future. Any future determination as to the payment of dividends by the Company will be at the discretion of the Board of Directors and will depend on the financial condition of the Company, future capital requirements and general business and other factors considered relevant by the Board of Directors.

1.3.2 Where will the securities be traded?

The existing shares of the Company are dual listed and can be traded (i) on the official list of ASX as well as (ii) on the regulated market (Prime Standard) of the FSE under the ticker code "VUL". The New Shares are expected to be simultaneously admitted to trading on the ASX and the FSE under the same ticker code "VUL".

1.3.3 What are the key risks that are specific to the securities?

- The market price and trading volume of the Shares could fluctuate considerably, including as between the ASX and the FSE, which may result in substantial losses for investors. Differences in market price, trading volume, settlement and clearing systems, trading currencies and transaction costs between the ASX and the FSE may hinder the transferability of the Shares between the ASX and the FSE.
- Future capital increases could lead to a substantial dilution of shareholders' interests in the Company and their voting rights and may adversely affect the market price of the Shares.

1.4 Key information on the offer of securities and the admission to trading on a regulated market

1.4.1 Under which conditions and timetable can I invest in this security?

Admission to Trading – The New Shares are expected to be admitted to trading on the FSE with simultaneous admission to the sub-segment of the regulated market with additional post-admission obligations (Prime Standard) on or about 12 May 2023 without a public offering of Shares in Germany, Australia or any other jurisdiction. Trading of the New Shares is expected to commence on the FSE on or about 15 May 2023.

Private Placement – In anticipation of the Admission to Trading, the Company, together with Merrill Lynch Equities (Australia) Limited, Level 34 Governor Phillip Tower, 1 Farrer Place, Sydney, New South Wales, Australia, LEI 5493000ZISK51SMQFR40, ABN 65 006 276 795 and Canaccord Genuity (Australia) Limited, Level 4, 60 Collins Street, Melbourne, Victoria, Australia, LEI 25490076B734BP7UYI53, ABN 19 075 071 466 (together the "**Underwriters**"), have initiated a private placement (the "**Private Placement**") of 21,400,000 New Shares. The price per New Share to be issued in the Private Placement has been fixed at EUR 3.08 and A\$ 5.10, respectively (the "**Placement Price**"). The New Shares are expected to be issued to institutional, professional and sophisticated investors, at the Placement Price, by using the Company's existing placement capacity in accordance with the ASX Listing Rules.

Underwriting – On 3 May 2023, the Underwriters and the Company have entered into an underwriting agreement in relation to the Private Placement ("**Underwriting Agreement**"). The Underwriting Agreement provides for a firm underwriting.

Dilution – Based on 143,435,301 Shares outstanding immediately prior to the Private Placement and assuming that none of the existing shareholders subscribes for any New Shares in the Private Placement, each shareholder's percentage ownership in the Company's share capital and voting rights would decrease by 12.98% per existing Share.

1.4.2 Who is the offeror and the person asking for admission to trading?

Admission to Trading – The Company, together with BofA Securities, has applied for the Admission to Trading

1.4.3 Why is this Prospectus being produced?

Reasons for the Admission to Trading, Costs and Use of Proceeds – The Company intends to pursue the Admission to Trading in connection with the issuance of the New Shares in order to raise additional funds pursuant to the Private Placement for the further growth of the Company.

The Company targets gross proceeds of approximately EUR 65.91 million (A\$ 109.14 million) from the Private Placement resulting from the issue of the New Shares. The costs of the Company related to the Admission to Trading and the Private Placement are expected to amount to approximately EUR 3.3 million. The Company intends to use the net proceeds from the Private Placement as follows: (i) the purchase of long-lead items for the construction of a Phase One lithium plant (approximately EUR 38 million), (ii) purchase of long-lead items for the construction of a new Phase One geothermal plant (approximately EUR 23 million) and (iii) the remaining amount for general working capital and corporate purposes.

Material Conflicts of Interest – There are no conflicting interests with respect to the Admission to Trading.

II. MAIN PART OF THE PROSPECTUS

1. RISK FACTORS

*An investment in the shares of Vulcan Energy Resources Limited (hereinafter the "**Company**" and together with its consolidated subsidiaries, "**Vulcan Group**") (each a "**Share**" and together the "**Shares**") is subject to a number of risks. Investors should carefully consider the following risks in this prospectus (the "**Prospectus**") when deciding whether to invest in the Shares.*

According to article 16 of the Prospectus Regulation, the risk factors featured in a prospectus must be limited to risks which are specific to the issuer and/or to the securities and which are material for taking an informed investment decision. Therefore, the following risks are only those material risks that are specific to the Company and the Shares. The following risk factors are categorised into subcategories based on their respective nature. In each category the two most material risk factors are mentioned first based on the Company's current assessment with respect to the probability of their occurrence and the expected magnitude of their negative impact. The risks mentioned may materialize individually or cumulatively.

1.1 Industry Specific Risks

1.1.1 **Battery raw materials and geothermal energy exploration and development are high-risk undertakings and there is no assurance that Vulcan Group's exploration activities will result in the commercial extraction of lithium or sustainable production of geothermal renewable energy.**

Vulcan Group intends to combine the operations of extracting lithium-rich geothermal brines in the Upper Rhine Valley of Germany, of upgrading lithium through electrolysis to a high purity lithium hydroxide monohydrate ("**LHM**") (Vulcan Group's lithium business), and of producing geothermal energy (Vulcan Group's renewable energy business) (the "**Zero Carbon Lithium™ Project**"). As part of its lithium business, Vulcan Group is developing opportunities to extract lithium-rich geothermal brines at various locations throughout the Upper Rhine Valley of Germany and in France with the aim to produce a battery-quality LHM chemical product. With the exception of its operational geothermal renewable energy plant in Insheim, Germany, Vulcan Group's property interests are at the exploration and development stage, and the Company is currently targeting – subject to obtaining further necessary funding and permits – commencement of commercial production of lithium chemicals at year-end 2025. Accordingly, it is not envisaged that Vulcan Group will generate material revenues or realise profits in the lithium business in the short term, and the Company cannot assure that Vulcan Group will realise profits from its lithium and renewable energy operations in the medium to long term or at all. Any future profitability, or the level of such profitability, of Vulcan Group's lithium business and renewable energy business will be dependent upon the development of an economically recoverable lithium and renewable energy resource and further exploration and development of other economically recoverable lithium deposits and geothermal resources. The Company cannot assure the existence of an economically recoverable lithium or geothermal resource at this time, nor the quantity or grade of any lithium or energy resource and/or reserve. Any quantity or grade of lithium resources and/or reserves or geothermal resources the Company indicates on its project areas must be considered as estimates only until such resources and/or reserves are actually extracted and processed. More generally, investors should not rely on the results of the PFS as the Company considers that the material assumptions underpinning that study to be no longer correct in light of the additional studies undertaken in preparing the definitive feasibility study for the first phase ("**Phase One**") of the Zero Carbon Lithium™ Project ("**DFS**") and developments since the PFS was published (including inflation in relation to certain costs as a result of supply chain disruptions and increased commodity costs, as well as an expansion of the project scope and refinements to the development plan, such as an increase in the number of well sites and additional infrastructure including pipelines and gas systems). Any material change in the quantity or grade of lithium resources and/or reserves or geothermal resources may affect the economic viability of Vulcan Group's projects.

Further, the Company cannot assure that, even if an economically recoverable lithium and geothermal resource is located in its project areas, any lithium and/or geothermal energy can be commercially extracted from Vulcan Group's property interests. The exploration and development of lithium and geothermal deposits involves a high degree of technical, operational, commercial and financial risk over a significant period of time, which may not be eliminated even with the combination of careful evaluation, experience and knowledge of Vulcan Group's management team. It is impossible to ensure that Vulcan Group's current exploration and development programs will

result in profitable commercial lithium and geothermal renewable energy production operations. The profitability of Vulcan Group's operations will be, in part, directly related to the cost and success of its exploration and development programs. Higher than expected expenditures may be required to establish reserves that are sufficient for commercial extraction and to construct, complete and install the necessary facilities and infrastructure (including geothermal plants, lithium extraction facilities and central processing facilities) in those project areas that are developed. Moreover, Vulcan Group's planned operations involve a distinct process which, while incorporating existing technologies or technologies with commercial analogues, the Company believes is commercially unique and therefore carries a high degree of risk and may not technically or commercially succeed (see section "1.2.1 Vulcan Group, with its limited operating history as an exploration and development business, has incurred operating losses since its incorporation. No assurance can be given that Vulcan Group will achieve commercial viability through its projects. Until Vulcan Group is able to realise value from its projects, it will not generate revenues from the production and sale of lithium and is likely to continue to incur ongoing operating losses.").

In addition, exploration projects like Vulcan Group's Zero Carbon Lithium™ Project have no proven operating history upon which to base estimates of future operating costs and capital requirements and there are no existing operating lithium extraction businesses in the Upper Rhine Valley comparable to Vulcan Group's. Any future estimates of reserves, lithium extraction recoveries or cash operating costs of Vulcan Group's exploration projects, will, to a large extent, be based upon the interpretation of geological, chemical and chemical engineering data, obtained from a limited number of sampling techniques, pilot extraction operations and preliminary or definitive feasibility studies (see section "1.2.1 Vulcan Group, with its limited operating history as an exploration and development business, has incurred operating losses since its incorporation. No assurance can be given that Vulcan Group will achieve commercial viability through its projects. Until Vulcan Group is able to realise value from its projects, it will not generate revenues from the production and sale of lithium and is likely to continue to incur ongoing operating losses."). Actual operating costs and economic returns of Vulcan Group's exploration projects may materially differ from the costs and returns estimated in the Company's feasibility studies.

Any of the above developments could result in a delay to entering into the production phase or in not being able to enter into the production phase at all, or could significantly add to the project costs, any of which could have a material adverse effect on Vulcan Group's ability to generate revenues or realise profits from its lithium business and/or renewable energy business and on its business, prospects, financial condition and results of operations.

1.1.2 General demand for lithium may decrease as a result of new market or technological developments and other factors. Any such factors resulting in a decrease in the general demand for lithium may have a detrimental effect on Vulcan Group's business.

Provided it commences commercial production, Vulcan Group intends to generate a substantial majority of its future revenues from the extraction and sale of lithium. If Vulcan Group achieves commercial production of LHM, the marketability of and demand for any chemicals produced may be affected by numerous factors beyond the control of Vulcan Group. These factors include new market developments and technological advancements, each of which may negatively impact the demand for the lithium Vulcan Group may produce. While lithium and its derivatives are currently preferred raw materials for certain industrial applications, such as rechargeable lithium batteries, some materials and technologies are being researched and developed with the goal of making batteries less expensive. Some of these materials and technologies could be successful which could lead to a reduced demand for LHM, and, accordingly, adversely affect Vulcan Group's business. For example, different application methods or the development of more desirable substitutes for lithium batteries in electric and hybrid vehicles, consumer electronics and other applications such as batteries with a sodium-ion basis may reduce the overall demand for lithium. Also, new technologies may emerge to lower the cost of production for such substitutes which would place cost pressures on Vulcan Group and impact its ability to competitively produce and market lithium. Whilst most automotive and battery companies are investing in the increased production of lithium-based batteries, particularly for automotive purposes, the Company cannot predict which new materials or technologies may ultimately prove to be commercially viable and in what time-frame. In addition, alternatives to lithium may become more economically attractive as global commodity prices shift. Any of these events could adversely affect demand for lithium, thereby resulting in a material adverse effect on the economic feasibility of extracting and processing any mineralisation in Vulcan Group's licence areas.

1.1.3 The Russian invasion of Ukraine, the sanctions imposed by numerous countries and international organisations in response thereto and countermeasures implemented by Russia and Belarus have adversely affected, and may continue to adversely affect, the availability and price of equipment, components and energy, supply chains, international trade, financing conditions and the global economy at large, which has had, and may continue to have, a detrimental effect on Vulcan Group's business.

The armed conflict waged upon Ukraine by Russia (the "**Russia-Ukraine Conflict**") has prompted numerous countries and international organisations, including the European Union, to impose sanctions on the Russian and Belarusian governments and Russian and Belarusian public and private entities and individuals. These sanctions include, among others, trade embargoes, travel bans, asset freezes and the exclusion of certain banks from the global financial system. In response thereto, Russia and Belarus have imposed countermeasures on persons and entities and terminated gas supply contracts to several entities and countries, including in the European Union. Going forward, it cannot be excluded that the Russia-Ukraine Conflict escalates further and that further sanctions and counter-measures will be taken by the European Union, Russia, Belarus and other countries and organisations.

The Russia-Ukraine Conflict and the related sanctions and counter-measures have created significant uncertainty in the global economy and reinforced pressures on already fragile global economic conditions as a result of the COVID-19 pandemic, increasing inflation and leading to rising interest rates imposed by central banks globally to counter such inflation as well as slowing economic growth, overall increasing the risk of a large-scale recession globally or in major economies including Germany, France and Italy where the Vulcan Group principally operates.

Vulcan Group has never had, and does not currently have, business operations in Russia, Belarus or Ukraine nor is it, or any of its Group Companies, directly affected by any sanction or counter-measure related to the Russia-Ukraine Conflict. Nevertheless, the adverse effects of the Russia-Ukraine Conflict and the related sanctions and counter-measures on the global economy have negatively affected, and may continue to negatively affect, Vulcan Group's business. Certain equipment and components required by Vulcan Group for the development of its business have become more difficult to source or take longer periods of time to be shipped and prices for such equipment and components have increased. For example, Vulcan Group's DFS for Phase One, originally scheduled to be completed by the second half of 2022, could only be completed by February 2023 as a result of supply chain disruptions resulting in longer delivery times which the Company believes have had their roots mainly in the COVID-19 pandemic and Russia-Ukraine Conflict and their respective broader repercussions. Also, the price for energy, including electric power, has increased significantly and resulted in higher costs for Vulcan Group, its suppliers and its customers. Whilst Vulcan Group believes that it will be able to address this by utilising more of the renewable energy it produces at its geothermal plants (both its existing geothermal plant and the further geothermal plants it intends to construct) for internal use at the geothermal plants and lithium extraction plants ("**LEPs**") if needed, it is still exposed to higher power prices, particularly at the level of the central lithium plant ("**CLP**"). Also, higher interest rates imposed by central banks to counter the inflationary pressures may render third-party financing more costly for Vulcan Group in the future (see section "**1.3.1 Significant future funding will be required by Vulcan Group to support the further implementation of its Zero Carbon Lithium™ Project. If Vulcan Group is unable to obtain additional financing as needed on acceptable terms or at all, it may need to abandon its development plans or reduce and/or change their scope which may, in turn, adversely affect Vulcan Group's operations.**"). Any of these effects could have a material adverse effect on Vulcan Group's business, prospects, financial condition and results of operations.

1.1.4 Vulcan Group's estimated exploration, development and operating costs are based on certain assumptions and no assurance can be given that Vulcan Group's cost estimates and the underlying assumptions to extract lithium chemicals from brine and renewable geothermal energy on commercially viable terms will be realised in practice.

Vulcan Group's exploration, development and operational costs are based on certain assumptions with respect to the timing and the method of exploration, development and operation. These estimates and assumptions are subject to uncertainties and, accordingly, the actual costs may materially differ from these estimates and assumptions. Vulcan Group's exploration, development and operational costs vary depending on, among other factors, future wage levels, future prices for certain equipment and components as well as future inflation rates, some of which factors have

increased substantially in the recent past. As for inflation, for example, inflation rates across the Eurozone have increased from 1.3% in March 2021 to 10.1% in November 2022, with only slight decreases recorded thereafter (source: harmonised index of consumer prices (HICP) of the European Central Bank ("**ECB**")) heavily impacting forward-looking cost estimates, as evidenced by increased capital expenditure estimates in Vulcan Group's DFS for Phase One (completed in February 2023) versus Vulcan Group's PFS (completed in January 2021). Vulcan Group has not yet completed a definitive feasibility study with respect to the second phase of its Zero Carbon Lithium™ Project ("**Phase Two**"), which is expected to include the construction of additional geothermal plants and LEPs and an expansion of the CLP, currently targeting a commercial production start in 2026/27, and, accordingly, there is even less certainty regarding the expected exploration, development and operational costs associated with the targeted production levels for Phase Two. Therefore, any estimates regarding the future development of these and other factors and any underlying assumptions may not prove correct and there is no guarantee that the cost estimates and the underlying assumptions will be realised in practice or that Vulcan Group will achieve commercial viability through the development of its Zero Carbon Lithium™ Project (see section "1.2.1 Vulcan Group, with its limited operating history as an exploration and development business, has incurred operating losses since its incorporation. No assurance can be given that Vulcan Group will achieve commercial viability through its projects. Until Vulcan Group is able to realise value from its projects, it will not generate revenues from the production and sale of lithium and is likely to continue to incur ongoing operating losses.>"). Should the actual costs differ materially from the estimates and assumptions on which Vulcan Group's development plans are based, this may materially adversely affect the prospects of Vulcan Group's business and operations.

1.1.5 Lithium exploration and development companies face risks along the entire value chain to extract and produce lithium, which may result in substantial delays or operational shut-downs, may require significant capital outlays or may result in an inadequate return or loss on invested capital.

Lithium exploration and development companies such as the Company operate along a value chain to extract and produce lithium. As a result, such companies face risks along the entire value chain. Current and expected future operations of Vulcan Group include a broad range of activities including exploration, appraisal, development and possible lithium production. These activities may be affected by a range of factors, including, but not limited to, the acquisition and/or delineation of economically recoverable mineralisation and heat, geological conditions, receiving the necessary approvals from all relevant authorities and parties, seasonal weather patterns and workforce availability, as well as risks arising from unanticipated technical and operational difficulties encountered in extraction and production activities, mechanical failure of operating plant and equipment, shortages or increases in the price of consumables, spare parts and plant and equipment, cost overruns, access to the required level of funding and contracting risk from third parties providing essential services, the ongoing COVID-19 pandemic and any other possible future outbreaks of diseases or pandemics as well as the Russia-Ukraine Conflict and its repercussions. For example, during the development of the Zero Carbon Lithium™ Project up to the date of this Prospectus, certain key project milestones such as the completion of the DFS for Phase One, the expected start of commercial lithium production and the anticipated start of the deliveries under the lithium offtake agreements concluded by the Company have had to be delayed and further project milestones may have to be postponed (also see section "1.1.3 The Russian invasion of Ukraine, the sanctions imposed by numerous countries and international organisations in response thereto and countermeasures implemented by Russia and Belarus have adversely affected, and may continue to adversely affect, the availability and price of equipment, components and energy, supply chains, international trade, financing conditions and the global economy at large, which has had, and may continue to have, a detrimental effect on Vulcan Group's business.>"). In addition, if Vulcan Group commences production, its operations may be disrupted by a variety of risks and hazards, many of which are beyond the control of Vulcan Group. Examples of events which could have such an impact include unscheduled plant shutdowns or other processing problems, mechanical failures, the unavailability, scarcity or the delayed supply of materials and equipment (including, for example, long-lead items) or labour, poor or unexpected geological or metallurgical conditions, poor water condition, interruptions to electricity supplies, human error and adverse weather conditions. As an example, sorbents required for the Company's activities in the direct lithium sorption ("**DLS**") space have recently been in short supply and it cannot be excluded that sorbent or other substances, material or equipment becomes scarce or unavailable to the Company or only available at a delay. While the exact effect of these factors cannot be accurately predicted, each of these factors (or a combination thereof) may result in substantial delays or operational shut-downs, may require significant capital outlays or may result in an inadequate return or loss on invested capital. In

addition, the materialisation of any such risk may adversely affect Vulcan Group's future earnings and competitive position and its business, prospects, financial condition and results of operations.

1.1.6 Lithium prices are subject to unpredictable fluctuations, driven in part by changes in the balance of global supply and demand as well as international, economic and geopolitical trends and developments. Any decrease or significant volatility in the price of or demand for lithium could have a detrimental effect on Vulcan Group's business.

Provided it commences commercial production, Vulcan Group intends to generate a substantial majority of its future revenues from the extraction and sale of lithium chemicals, with such sales generally to be made at prevailing market prices for lithium chemicals, as calculated by reference to market recognised price reporting agencies' contract-based indices. The price of lithium chemicals may, however, fluctuate widely and is affected by numerous factors beyond Vulcan Group's control, including international, economic and geopolitical trends and developments, government policies, regulatory trends and developments to promote battery electric vehicles ("**BEVs**"), currency exchange fluctuations, interest rates, global or regional consumptive patterns, speculative activities, increased production due to new extraction developments and improved extraction and production methods and technological changes in the markets for the end products, such as the market for rechargeable batteries. The general demand for lithium may also be volatile due to factors beyond Vulcan Group's control, including the factors referred to in the previous sentence (see section "**1.1.2 General demand for lithium may decrease as a result of new market or technological developments and other factors. Any such factors resulting in a decrease in the general demand for lithium may have a detrimental effect on Vulcan Group's business.**"). As BEV uptake is heavily reliant on government regulations and incentives, demand for BEVs (and, in turn, lithium products for BEV batteries) will be affected by any changes in government policy affecting these regulations and incentives. Forecasts for growth in BEV uptake are subject to a degree of uncertainty, and the level of actual BEV uptake will have a strong correlation with demand for lithium products and the price at which it is sold.

Any decrease or significant volatility in the price of or any decrease in the general demand for lithium chemicals, whether due to changes in government policy or any of the other factors mentioned above, could have an adverse effect on Vulcan Group's future earnings, competitive position, financial viability and results of operations.

1.1.7 Any increase in the production of LHM and lithium carbonate from current or new competitors in the lithium markets could adversely affect prices or Vulcan Group's competitive position.

Whilst the current LHM and lithium carbonate prices, considered in the long-term, are relatively high due to increasing demand and insufficient supply in previous years, new and existing companies globally have increased the supply of LHM and lithium carbonate, which has affected the lithium price. Currently, new lithium chemicals projects are under development globally. Whilst lithium demand is forecast to continue to grow strongly (source: Fastmarkets, Lithium Market Study – 2022, October 2022, prepared for Vulcan Energy Resources Limited), there can be no assurance that this growth will materialise. Even if Lithium demand does grow, if competing projects under development are completed in the short- or medium-term, the increase in lithium supply could adversely affect the market price of lithium, thereby resulting in a material adverse effect on the economic feasibility of extracting and processing lithium chemicals from brine in Vulcan Group's project areas and reducing or eliminating any reserves Vulcan Group may identify from time to time.

In addition, current and potential competitors may have larger financial resources or governmental support and, accordingly, may be able to launch new or expand existing LHM production operations faster or on a broader scale than Vulcan Group. New and existing competitors may also establish themselves in the Upper Rhine Valley of Germany or France, where Vulcan Group is currently conducting its exploration and development activities at various locations, and attempt to replicate Vulcan Group's business model of extracting lithium from geothermal brines. Should any of these scenarios materialise, this could have a material adverse effect on the Company's competitive position and future earnings.

1.1.8 Any decrease in the price or demand for geothermal energy may have a detrimental effect on Vulcan Group's business.

Vulcan Group's business model includes developing, owning and operating geothermal plants within its project areas. In December 2021, Vulcan Group acquired Pfalzwerke geofuture GmbH (renamed Natürlich Insheim GmbH ("**Natürlich Insheim**")). Natürlich Insheim owns and operates a deep geothermal power plant in Insheim, Germany (the "**Insheim Plant**"). The Insheim Plant produces renewable energy and the revenues from the produced electricity are subject to the subsidised remuneration regime under the German Renewable Energy Act (*Erneuerbare-Energien-Gesetz*) 2023 for which currently a regulated tariff of EUR cent 25.20 / kWh is paid. The regulated tariff applies for a remuneration period of 20 full years plus the year of commissioning of a geothermal plant (in the case of the Insheim Plant: 2012). After the expiry of this remuneration period in 2033, the Insheim Plant's future revenues will depend upon the applicable market price for renewable energy at that time.

Additionally, Vulcan Group anticipates constructing two additional geothermal plants as part of Phase One and further geothermal plants as part of Phase Two. The brine from these plants will be utilised in Vulcan Group's lithium business; however, they will also produce electricity and heat. Vulcan Group currently intends to sell the electricity and the majority of heat produced to the grid and local third-party customers, respectively, the latter of which Vulcan Group expects will primarily consist of local municipalities and businesses. Accordingly, provided the Zero Carbon Lithium™ Project reaches commercial production, Vulcan Group's economic exposure to the prices of electricity and heat will increase.

The market prices of energy may fluctuate widely and are affected by numerous factors beyond Vulcan Group's control, including international, economic and geopolitical trends and developments, regulatory developments to promote renewable energy, currency exchange fluctuations, interest rates, global or regional consumptive patterns and speculative activities. Any material decrease in the price or demand for renewable energy may have an adverse effect on Vulcan Group's earnings.

1.2 Business Risks

1.2.1 Vulcan Group, with its limited operating history as an exploration and development business, has incurred operating losses since its incorporation. No assurance can be given that Vulcan Group will achieve commercial viability through its projects. Until Vulcan Group is able to realise value from its projects, it will not generate revenues from the production and sale of lithium and is likely to continue to incur ongoing operating losses.

The Company was incorporated in February 2018 and acquired Vulcan Energy Resources Pty Ltd (later renamed Vulcan Energy Resources Europe Pty Ltd) which held the flagship Zero Carbon Lithium™ Project in September 2019. Vulcan Group has a limited operating and financial history. Vulcan Group is developing opportunities to extract lithium chemicals and produce geothermal energy from brine at various locations throughout the Upper Rhine Valley of Germany and France (its Zero Carbon Lithium™ Project). As a business which is still in the exploration and development stage, Vulcan Group has not generated any significant revenues (with its limited revenue from continuing operations to date being attributable primarily to the operations of the Insheim Plant acquired in December 2021). Moreover, due to its investments including, in particular, company acquisitions, acquisition of seismic data, undertaking feasibility studies and pilot testing works, Vulcan Group has incurred significant operating losses. Relating to its Zero Carbon Lithium™ Project, Vulcan Group has so far only carried out a pre-feasibility study (being the PFS) and a definitive feasibility study (being the DFS for Phase One). Vulcan has not yet carried out a definitive feasibility study for Phase Two. Vulcan Group may therefore at this stage not have sufficient data to address and properly assess the risks frequently encountered by lithium and geothermal companies with a limited operating history, including its ability to:

- develop and operate its Zero Carbon Lithium™ Project;
- complete a definitive feasibility study for Phase Two and/or realise the Company's targeted results for Phase Two;
- conduct profitable lithium extraction and processing operations, as well as geothermal renewable energy operations; and
- anticipate and adapt to any changes in relation to government regulation relating to its Zero Carbon Lithium™ Project.

Moreover, investors should not rely on the results of the PFS as the Company considers that the material assumptions underpinning that study to be no longer correct in light of the additional studies undertaken in preparing the DFS for Phase One and developments since the PFS was published (including inflation in relation to certain costs as a result of supply chain disruptions and increased commodity costs, as well as an expansion of the project scope and refinements to the development plan, such as an increase in the number of well sites and additional infrastructure including pipelines and gas systems).

The operations of Vulcan Group may be affected by various factors, including delays with obtaining necessary permits to conduct its business; failure to locate or identify lithium and geothermal deposits; operational failures and delays as a result of exploration and exploitation activities being carried out in geological fault zones; failure to achieve predicted grades in exploration and brine extraction; more rapid depletion of lithium resources in Vulcan Group's licence areas than expected or forecasted; failure to achieve estimated permeability, flow rates as well as brine temperature and heat from geothermal wells; difficulties in commissioning and operating plant and equipment; downhole collision, scaling or corrosion affecting drilling equipment; insufficient deep well data; interrupted or limited brine recovery; mechanical failure and plant breakdown; unanticipated metallurgical problems which may affect extraction rates and costs; adverse weather conditions; industrial and environmental accidents; the ongoing COVID-19 pandemic and any other possible future outbreaks of diseases or pandemics; the Russia-Ukraine Conflict and its broader repercussions; industrial disputes; and unexpected shortages or increases in the costs of labour, consumables, spare parts, plant and equipment. No assurances can be given that Vulcan Group will achieve commercial viability through the successful exploration, development and/or processing activities of its Zero Carbon Lithium™ Project.

Vulcan Group is attempting to develop a new type of operation, involving direct extraction of lithium from geothermal brines with a net zero carbon footprint. Whilst the Company is using existing technologies or technologies with commercial analogues, the Company believes this process is commercially unique and therefore carries a high degree of risk and may not technically or commercially succeed. In addition, Vulcan Group's targeted timeline for development of its geothermal and lithium operations is tight, and contemplates that all technical development and scale-up activities will proceed without any further delays to permitting or construction. This includes a shorter development timeline than has historically been the case for developing geothermal projects in Germany, and Vulcan Group also has the added complexity of the distinct lithium extraction operation (set apart by, among other things, LHM production via electrolysis), with even conventional lithium projects worldwide often suffering considerable delays and setbacks. For example, during the development of the Zero Carbon Lithium™ Project up to the date of this Prospectus, certain key project milestones such as the completion of the DFS, the expected start of commercial lithium production and the anticipated start of the deliveries under the lithium offtake agreements concluded by the Company have had to be delayed and further project milestones may have to be postponed (also see section "1.1.3 The Russian invasion of Ukraine, the sanctions imposed by numerous countries and international organisations in response thereto and countermeasures implemented by Russia and Belarus have adversely affected, and may continue to adversely affect, the availability and price of equipment, components and energy, supply chains, international trade, financing conditions and the global economy at large, which has had, and may continue to have, a detrimental effect on Vulcan Group's business."). Furthermore, Vulcan Group may not obtain the necessary brine flow rates or may encounter difficulties surrounding the timely completion of the construction of geothermal wells.

The prospects of Vulcan Group must be considered in light of the risks, expenses and difficulties frequently encountered by companies in the corresponding stage of feasibility, which have a high level of inherent uncertainty. No assurance can be given that Vulcan Group will achieve commercial viability through the successful exploration and/or development of its Zero Carbon Lithium™ Project. Until Vulcan Group can realise value from its Zero Carbon Lithium™ Project, it is likely to continue to incur ongoing operating losses.

1.2.2 The resource estimates relating to Vulcan Group's current and future projects are subject to certain assumptions and interpretations which may prove to be inaccurate. Any material deviations may result in alterations to development plans which may, in turn, adversely affect Vulcan Group's operations.

Technical studies (such as pre-feasibility studies and definitive feasibility studies) are often used to demonstrate the technical and economic viability of a mineral deposit. Typically, a company will first undertake a "preliminary feasibility study" (or "pre-feasibility study") of a mineral deposit to

determine what portion of the mineral resources may be converted to ore reserves. Following the preliminary feasibility study, a company may undertake further technical and economic studies of the project (generally known as a "definitive feasibility study") to demonstrate that, at the time of reporting, the project is economically mineable. A "definitive feasibility study" is of a higher level of confidence than a pre-feasibility study, and the results of the study often serve as the basis for a final decision by the company to proceed with, or a financial institution to finance, the development of the project. Both pre-feasibility studies and definitive feasibility studies include economic and financial analyses based on certain assumptions relating to extraction, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and governmental factors, as well as any other relevant factors as determined by a qualified minerals industry professional (known as a "competent person"). Many factors are involved in the determination of the economic viability of a mineral deposit, including the achievement of satisfactory ore reserve estimates, the level of estimated metallurgical recoveries, water consumption and water supply, capital and operating cost estimates and the estimate of future metals prices. As a result, technical studies are subject to material uncertainties, in particular in projects in the exploration and correspondingly early phases, as in the case of Vulcan Group's Zero Carbon Lithium™ Project. The information relating to resource estimates in this Prospectus is based on Vulcan Group's DFS for Phase One (a definitive feasibility study) and a competent person report ("**Competent Person Report**" or "**Independent Expert Report**") and is therefore subject to such uncertainties. In addition, no definitive feasibility study has been completed for Phase Two yet, and there remains additional uncertainty relating to the technical and economic viability of Phase Two.

Vulcan Group's Zero Carbon Lithium™ Project geologically represents a combined exploration and development project since it includes a number of different project areas at different levels of maturity. In deep geothermal brine projects in the Upper Rhine Valley of Germany, exploration is typically conducted with seismic data acquisition and interpretation, with the first well drilled as the first production or re-injection well. Due to the unique nature of the deep geothermal brine-type deposit, exploration drilling has not been conducted within Vulcan Group's licence areas, with the exception of the core of the field in the Phase One development area, which contains operating production wells in Insheim (Vulcan Group's Insheim Plant) and Landau (the Landau plant operated by geox GmbH in respect of which Vulcan Group has agreed a brine offtake agreement), and Vulcan Group's lithium resources have been estimated using 2D and 3D seismic data, historical hydrocarbon and geothermal wells with lithological information inside and outside Vulcan Group's licence areas, and lithium grades measured from proximate geothermal wells outside Vulcan Group's licence areas, with the exception of the Phase One core of the field at Insheim and Landau, where extensive sampling and measuring of lithium grades has been conducted. Estimates of the tonnes, grade and overall mineral content of the resources in Vulcan Group's project areas are not precise calculations, but are based on interpretation of samples from sparse brine sampling at on and off-property wells, with the exception of the Phase One core of the field at Insheim and Landau, where extensive sampling and measuring of lithium grades has been conducted. Accordingly, localised grade variability may exist, which could result in deviations from production expectations. More advanced data will only be available once the resources have been further developed by first production drilling of geothermal wells and gathering of additional data. Since the first wells are also used as production or re-injection wells because of their high capital cost, Vulcan Group has been relying on seismic data analysis and interpretations, and existing well data (for example from the operating Insheim and Landau production wells) for its DFS for Phase One and plans to drill its first new development wells in parallel with its commercial development. Until Vulcan Group has drilled all of the development wells required for its Phase One and Phase Two commercial development, there is a degree of uncertainty on the lithium grades in the brine, the heat, and the brine flow rate of Vulcan Group's planned operation, which could have an adverse effect on the commercial viability of Vulcan Group's proposed activities (including the Zero Carbon Lithium™ Project).

By their very nature, estimates of Vulcan Group's lithium resources and ore reserves are imprecise and depend to some extent on assumptions and interpretations, which may prove to be inaccurate. In addition, such estimates are expressions of judgement based on knowledge, experience and industry practice. Estimates which were valid when originally calculated may alter significantly when new information or techniques become available. As further information becomes available through additional fieldwork and analysis, the estimates are likely to change. More generally, investors should not rely on the results of the PFS as the Company considers that the material assumptions underpinning that study to be no longer correct in light of the additional studies undertaken in preparing the DFS for Phase One and developments since the PFS was published (including inflation in relation to certain costs as a result of supply chain disruptions and increased commodity costs, as well as an expansion of the project scope and refinements to the development plan, such as an increase in the number of well sites and additional infrastructure including pipelines and gas

systems). Also, there can be no assurance that the test work carried out so far is sufficient and sufficiently granular to leverage the commercial scale-up of the Zero Carbon Lithium™ Project and further or more extensive test work may be required which may, in turn, result in further delays and drive up costs. Such and similar developments may result in alterations to development plans which may, in turn, adversely affect Vulcan Group's operations and financial performance and the Company's Share price. In addition, if a project is developed, actual operating results may differ from those anticipated in technical studies (such as pre-feasibility studies and definitive feasibility studies).

1.2.3 There is no guarantee that Vulcan Group will be able to obtain all required approvals, licences and permits for lithium and geothermal renewable energy production in time or at all.

Vulcan Group currently holds all exploration licences required to undertake its exploration programs, and a geothermal exploitation licence at the Insheim Plant. However, many of the lithium and geothermal energy rights and interests held by Vulcan Group are subject to the need for ongoing or new governmental approvals, licences and permits as the project advances and the scope of Vulcan Group's operations changes. For example, Vulcan Group will need, in various locations, permits to conduct seismic exploration and drilling. The granting and renewal of such approvals, licences and permits are, as a practical matter, subject to the discretion of applicable government agencies or officials. Also, governmental approval processes and Vulcan Group's own stakeholder engagement procedures often allow for a form of participation of the general public which may consume substantial time and cost, and add an element of uncertainty to the process. If the Company pursues development of what it believes to be an economically viable lithium and geothermal energy deposit, it will, among other things, require various approvals, permits and licences before it will be able to produce minerals from the deposit, and will need to satisfy certain environmental approval processes (see section "1.2.4 Vulcan Group's projects may face opposition from local residents and other stakeholders, which may result in delays, additional costs, discontinuation of construction or operations and uncertainty."). The maintenance or issue of any such approvals must be in accordance with the laws of the relevant jurisdiction and, in particular, the relevant mining legislation. Conditions imposed by such legislation must also be complied with.

No guarantee can be given that approvals, licences or permits will be maintained or granted (at all or in a timely fashion), or, if they are maintained or granted, that Vulcan Group will be in a position to comply with all conditions that are imposed or that they will not be challenged by third parties. The approvals, licences or permits may be subject to prior unregistered agreements or transfers or title may be affected by undetected defects or other claims. The materialisation of any of these risks could adversely affect Vulcan Group's operations and financial performance.

1.2.4 Vulcan Group's projects may face opposition from local residents and other stakeholders, which may result in delays, additional costs, discontinuation of construction or operations and uncertainty.

Geothermal renewable energy and mineral exploration, development and extraction businesses, such as that carried out by Vulcan Group, can face concerns and/or opposition from local residents, members of the local community, non-governmental organisations, environmental protection groups or other stakeholders, potentially during all phases of project implementation but particularly during construction and operation, regarding actual or potential breaches of regulatory conditions, health and safety risks, or environmental or other issues. Stakeholders may also take issue with, and oppose Vulcan Group's project or Vulcan Group more generally due to, the Company's "foreign" incorporation and its majority foreign ownership and control. Such stakeholders may choose to voice their concerns and opposition during the public consultation and participation process as part of the administrative procedures relating to the granting of approvals, licences and permits or, if unsuccessful, in court, each of which may result in substantial delays, additional costs, reputational risk and uncertainty as to the outcome of such procedures. Moreover, such stakeholders may decide to pursue their interests outside of formal channels by means of public protests, sit-ins or otherwise, in each case resulting in additional delays, costs, reputational risk and uncertainty. Drillings by geothermal energy businesses in connection with projects in the Upper Rhine Valley and areas in the proximity thereof have encountered, and have been discontinued as a result of, inter alia, local opposition. Similarly, Vulcan Group's seismic exploration activities have also occasionally been, and continue to be, met with opposition, which prompted Vulcan Group to temporarily pause application processes, allocate additional time to engage with local stakeholders and apply other measures to address local stakeholder concerns. Each such risk, if it materialises, could result in the delayed commencement of operations or the temporary or permanent prevention or discontinuation of

operations in their entirety and, thus, adversely affect Vulcan Group's business. Accordingly, the success of Vulcan Group's operations is in part dependent on the support of local and regional stakeholders including, in particular, local communities and civil society.

1.2.5 Vulcan Group has entered into binding lithium offtake agreements with various customers which rely upon Vulcan Group's ability to produce certain quantities of lithium chemicals to certain specifications within a certain timeframe. Should the counterparty of any such lithium offtake agreement terminate such agreement as a result of Vulcan Group's failure to meet these or other obligations, Vulcan Group would be unable to realise the economic benefits of such agreement, which could adversely affect Vulcan Group's operations and financial performance.

Provided Vulcan Group commences commercial production, a substantial majority of its future revenues are intended to be generated from the extraction and sale of lithium chemicals. The lithium chemicals are planned to be marketed and sold principally through binding agreements for the sale of battery grade LHM (referred to as lithium offtake agreements) concluded with various customers (in some instances, entered into well in advance of Vulcan Group's entering into the production phase). As of the date of this Prospectus, Vulcan Group has entered into binding lithium offtake agreements with Umicore N.V., Renault Group, Stellantis N.V., Volkswagen AG and LG Energy Solutions, corresponding to the entire expected quantity of the first five years of production from Vulcan Group's Zero Carbon Lithium™ Project. Vulcan Group's ability to generate revenues from any such agreements is subject to certain conditions, risks and uncertainties, which could materially impact the economic value of these agreements to Vulcan Group or even result in their termination. For example, the scheduled commencement dates of commercial delivery under each of these lithium offtake agreements, the expected start of commercial lithium production and other key project milestones had to be delayed as a result of, inter alia, supply chain disruptions Vulcan Group experienced during 2022 as a result of the Russia-Ukraine Conflict and the COVID-19 pandemic. Moreover, the lithium offtake agreements contain conditions including, inter alia, Vulcan Group's ability to produce lithium chemicals in sufficient quantities and to the required specification in accordance with an agreed timetable. The lithium offtake agreements entered into by Vulcan Group generally contain termination rights in favour of the counterparty in the event that Vulcan Group fails to produce the agreed-upon quantities of lithium chemicals to the required specification and/or in the timeframe set out therein. There can be no assurance that Vulcan Group will be able to produce such quantities of lithium chemicals at the required specification in the applicable timeframe or that Vulcan Group will reach the production phase at all. Delays in achieving the required level of production in the applicable timeframe may occur in connection with obtaining necessary permits, failure to locate or identify lithium deposits or failure to achieve predicted grades in exploration and brine extraction (see section "1.2.1 Vulcan Group, with its limited operating history as an exploration and development business, has incurred operating losses since its incorporation. No assurance can be given that Vulcan Group will achieve commercial viability through its projects. Until Vulcan Group is able to realise value from its projects, it will not generate revenues from the production and sale of lithium and is likely to continue to incur ongoing operating losses. "). Should the counterparty to any lithium offtake agreement concluded with Vulcan Group decide to terminate or re-negotiate the terms of such lithium offtake agreement as a result of any such delay or Vulcan Group's inability to produce the agreed-upon quantities of lithium chemicals at the required specification in the pre-agreed timeframe, Vulcan Group would be unable to realise the economic benefits of such agreement and would be required to offer the lithium chemicals to another third party on potentially worse terms, which could adversely affect Vulcan Group's operations and financial performance. Also, there can be no assurance that Vulcan Group will be able to enter into new lithium offtake agreements at similar or more favourable terms with other counterparties or at all.

1.2.6 The Company may be unable to achieve the expected benefits from past acquisitions, partnerships and joint-ventures or successfully execute future acquisitions, partnerships and joint-ventures that it may pursue to execute its strategy and development plans.

Since its incorporation, the Company has completed several acquisitions of businesses. The most material acquisition was the acquisition of Natürlich Insheim in December 2021, which owns and operates the Insheim Plant. Most recently, the Company acquired Comeback Personaldienstleistungen GmbH ("**Comeback**") through Vulcan Energie Ressourcen GmbH ("**Vulcan Energie**"), the Company's direct subsidiary in Germany, to insource drilling personnel capabilities. The Company may also in the future analyse and ultimately execute potential opportunities regarding acquisitions of existing companies, businesses, assets or technologies. However, there

can be no assurance that the Company will be able to discover suitable acquisition targets at reasonable prices or at all. Should the Company be successful in making an acquisition, it may have to incur substantial expenditure, in the form of cash, shares or otherwise, incur debt, take on loss-making business divisions or take on other types of expenses. In particular, any such future acquisitions may result in increased indebtedness, substantial commitment of management capacity and resources and, in cases in which the consideration is fully or partially paid in shares, a dilution of the Company's shareholders. Further, the Company might fail to achieve the capacity expansion, cost savings, synergies or other benefits that it expects to realise from such acquisitions. There is no assurance that the implementation of any future acquisitions will yield benefits to the Company at a level sufficient to justify the expenses incurred in completing such acquisitions. Any integration process following any such acquisition might be complicated by the loss of key personnel, negative changes in the course of ongoing business processes and relationships with customers and employees. As a result, any such integration process may require more time, expenses and management capacity and resources than expected. In addition, the Company may be unable to carry out sufficient due diligence and any failure by the Company to identify, or to correctly assess, all of the problems, issues, liabilities or other shortcomings or challenges of a target company, business or technology, including issues related to intellectual property, data protection, regulatory compliance, accounting practices or employee or customer issues, could harm the Company's business, and the Company could incur extraordinary or unexpected legal, regulatory, contractual, labour or other costs as a consequence of any such acquisition.

Vulcan Group has also engaged in the past, and may engage in the future, in partnerships and joint-ventures as part of its strategy, the success of which is difficult to predict. For example, in July 2022, the Company entered into a binding collaboration agreement with Enel Green Power ("**EGP**") to develop its exploration activities in Italy and to explore future opportunities for cooperation. In December 2022, Vulcan Group entered into a joint-venture agreement with Geysir Europe GmbH ("**Geysir**") pursuant to which Vulcan Energie and Geysir intend to construct and operate a geothermal energy plant in an isolated area of Geysir's Landau-Süd licence area located in Rheinland-Pfalz and into an agreement with Geo Exploration Technologies GmbH ("**GET**") to develop the northern half of the Rift licence to the west of its Insheim Licence, in return for a production royalty, which is intended to further complement production from the Insheim area. Vulcan Group also intends to enter into strategic partnerships or joint ventures related to the development of the Zero Carbon Lithium™ Project or certain components thereof to obtain equity funding at the project level, with an overall target of funding approximately 35% of the capital expenditure requirements for Phase One through equity funding.

In April 2023, the Company signed a term sheet regarding a proposed strategic partnership with Nobian GmbH ("**Nobian**"), for the formation of a proposed 50/50 joint venture over, and equity financing of, Vulcan Group's CLP. The proposed strategic partnership is subject to the parties entering into definitive agreements and the parties shall use reasonable endeavours to execute the definitive agreements within 10 weeks from the date of the term sheet. The planned CLP is contained within a joint venture special purpose vehicle ("**SPV**") referred to as SPV 2, and the term sheet provides that, subject to execution of definitive agreements and the satisfaction of other conditions, Nobian shall contribute EUR 161 million in cash as equity to fund capital expenditure for the CLP, to acquire 50% of SPV 2 joint venture, on the basis of an agreed valuation of EUR 322 million for the CLP SPV 2. The parties shall use reasonable endeavours to execute the definitive agreements which contain materially the terms set out in the term sheet, within ten weeks following the execution of the term sheet. Termination by either party will be possible after ten weeks if the definitive agreements have not been executed by that date. The parties are under no obligation to proceed and implement the transaction in part or in full unless the definitive agreements have been executed. Other material terms of the term sheet include: (i) Nobian will make an initial contribution of EUR 15 million upon execution of the definitive agreements and will make subsequent contributions upon the satisfaction of certain milestones; Nobian's shareholding in SPV 2 shall (at each point in time) reflect the proportion of Nobian's contributions which have been unconditionally committed to SPV 2; (ii) the milestones and timing to trigger equity contributions to SPV2 are not prescribed in the term sheet and will be jointly defined in the definitive agreements; the timing will be in line with Vulcan Group's current development timeline, as published in the DFS for Phase One; (iii) execution of the definitive agreements is conditional upon satisfactory completion of confirmatory legal, business, commercial and technical due diligence by Nobian and approval of the definitive agreements by Nobian's and by the Company's board of directors and/or other competent corporate bodies, as applicable; (iv) the definitive agreements will also be subject to approval of the transaction and definitive agreements by public authorities (e.g. merger control), if so required; (v) during the term of the term sheet, the parties have given mutual exclusivity rights to negotiate with one another in respect of the transaction; (vi) the parties will work together on future expansions of capacity of the CLP, in line

with Vulcan Group's stated development plans. There can be no assurance that the parties will execute definitive agreements, and any final definitive agreements to be entered into remain subject to negotiation and may be on terms that are different to those set out in the term sheet.

Vulcan Group has separately established a special purpose vehicle to own the plant and infrastructure associated with the production of renewable energy and LHM other than the CLP, including land, wells, pipelines and geothermal and lithium extraction plants, and intends to deploy a similar strategy as with the CLP to obtain project-level equity investment; however, it has not yet entered into any agreements or term sheets with respect to such investment.

These and potential future partnerships and joint-ventures may not yield the desired results or otherwise function as intended by the parties. Among others, partners may have economic or other business interests or goals that are different to those of Vulcan Group and the interests of the parties may not be, or may over time cease to be, aligned; controversies may arise between the parties regarding matters of governance and control, ownership or use rights to intellectual property and other assets or other matters; joint decision-making arrangements or veto rights on the part of any partners could make the day-to-day operation of the partnership or joint-venture less efficient or more burdensome than expected and could lead to delays in, or changes to, projects; the Company's economic interest in its projects may be diluted; partners may experience insolvency or other liquidity issues (which could cause the partner to default on its obligations or cease trading); and the commercial results of the partnership or joint-venture may turn out to be less promising than expected. Any such controversy may turn into a serious dispute potentially resulting in legal proceedings, the loss of business opportunities or disruption to, or termination of, the relevant partnership or joint-venture and divert the Company's management's attention and other resources. Any of the foregoing could have a material adverse effect on Vulcan Group's business, assets, results of operations, financial condition and prospects.

1.2.7 Vulcan Group will be dependent on third-party suppliers and contractors for various services and products as well as on transportation channels and other infrastructure required for its business operations.

During development and construction and continuing once the Zero Carbon Lithium™ Project advances to the stage of commercial production, Vulcan Group will rely on third-party suppliers and contractors for various goods and services including utilities, electricity for its CLP, chemicals, operation services, transportation and construction services in line with industry practice. Vulcan Group may be unable to monitor the performance of its contractors and other third parties as directly and efficiently as it can its own employees. Therefore, Vulcan Group is exposed to the risk that its third-party service providers fail to perform their obligations, which may in turn adversely affect Vulcan Group's business operations. In addition, qualified contractors and other third parties may not always be readily available when needs for outsourcing arise. If Vulcan Group is unable to hire qualified contractors and other third parties, its ability to complete projects or other contracts could be impaired. If the amounts Vulcan Group is required to pay to contractors and other third parties exceed what has been estimated, Vulcan Group may suffer losses. Outsourcing also exposes Vulcan Group to risks associated with non-performance, delayed performance or sub-standard performance by contractors or other third parties. As a result, Vulcan Group may incur additional expenses due to delays or to higher costs.

Vulcan Group's production operations will be dependent on access to adequate transportation channels and other infrastructure. Vulcan Group will be reliant on readily available and functioning transportation, inter alia, for deliveries to the CLP planned to be constructed at the Höchst Chemical Park (*Industriepark Höchst*), located in Frankfurt am Main, and from the CLP to customers. There can be no assurance that the existing transportation networks will be sufficient to meet Vulcan Group's transportation requirements. Furthermore, any disruption to, or decrease in, the availability or capacity of the transportation networks, such as an earthquake, major rail or highway accidents, strikes, seasonal congestion during holidays or any significant rise in transportation costs, could materially and adversely affect Vulcan Group's ability to deliver its products to customers and have a material adverse effect on its overall processing and manufacturing business and results of operations.

Any of the above events could have a material adverse impact on Vulcan Group's operations, financial performance and reputation.

1.2.8 Vulcan Group's geothermal projects are subject to seismicity risks.

Vulcan Group is focused on developing a deep geothermal-lithium brine field in the Upper Rhine Valley of Germany and, subject to successful new licence applications, in France. While the geothermal industries in Germany and France have procedures in place for controlling seismicity to a generally acceptable threshold, some geothermal brine projects have been associated with seismicity events beyond the acceptable threshold in the past, which has resulted in projects being shut down or being scrutinised by the competent mining authorities. Should Vulcan Group's projects, once more advanced, cause or be associated with seismicity events, they could be scrutinised by the competent authorities which could issue all necessary orders to reduce resulting risks and to exclude such events going forward. Such orders could potentially include, amongst others, increased seismicity monitoring obligations, operational restrictions or (as preliminary measures or last resort) a partial or temporary, or even a complete, shut-down of the relevant projects, depending on the specific circumstances. Furthermore, the operator of the facility is obliged to pay compensation for resulting damages and violations of permit provisions can be penalised as administrative offences or even criminal offences. The materialisation of any of the above risks could disrupt the operations of Vulcan Group and, accordingly, have a material adverse effect on Vulcan Group's operations and financial performance (see section "1.2.4 Vulcan Group's projects may face opposition from local residents and other stakeholders, which may result in delays, additional costs, discontinuation of construction or operations and uncertainty.").

1.2.9 Vulcan Group's geothermal projects are subject to climate change risks.

Whilst one of the primary purposes of the Zero Carbon Lithium™ Project is to avoid carbon emissions in the lithium supply chain, there are a number of climate-related factors that may affect the operations and proposed activities of Vulcan Group. Climate change may cause certain physical and environmental risks that cannot always be reasonably predicted by the Company, including events such as increased severity of weather patterns and incidence of extreme weather events, as well as longer-term physical risks such as shifting climate patterns. In particular, higher temperatures prevailing over increasing periods of time, as a result of the anticipated global warming, may negatively impact the efficiency of the processes in geothermal plants used in the energy production business of Vulcan Group. The materialisation of any of these risks could have a material adverse effect on Vulcan Group's operations and financial performance.

1.2.10 Vulcan Group's operations are subject to supply chain risk and other risks arising from the ongoing COVID-19 pandemic and any other possible future outbreaks of contagious diseases or pandemics, which may have a significant adverse effect on Vulcan Group.

The ongoing COVID-19 pandemic and any other possible future outbreaks of contagious diseases or pandemics may have a significant adverse effect on Vulcan Group. The spread of such diseases amongst Vulcan Group's management, employees, contractors and suppliers, as well as any quarantine and isolation requirements, may affect Vulcan Group's ability to efficiently operate. In particular, the imposition of any mobility restrictions may adversely affect all or parts of the supply chain in the development of Vulcan Group's Zero Carbon Lithium™ Project, such as the materials required for the commercial plant construction, which could cause delays in the development of the Zero Carbon Lithium™ Project and potentially affect the commercial viability of the Zero Carbon Lithium™ Project. For example, Vulcan Group has experienced some delays on construction of its lithium extraction optimisation plant ("LEOP") due to supply chain disruptions resulting in longer delivery times, which the Company believes have had their roots mainly in the COVID-19 pandemic and Russia-Ukraine Conflict and their respective broader repercussions. This has led to Vulcan Group's target for the commencement of commercial production from Phase One moving from 2024 to late 2025 and from Phase Two moving from 2025 to 2026/2027, which caused the Company to delay the scheduled dates of commencement of commercial delivery in each of the lithium offtake agreements entered into by Vulcan Group. This risk is exacerbated by the fact that the Zero Carbon Lithium™ Project and most of its team are located in the Upper Rhine Valley, whilst Vulcan Group's head office, as well as some of Vulcan Group's key management team members, are located in Perth, Western Australia. While quarantine and isolation requirements have recently been relaxed in Europe, Australia, China and other countries, it cannot be excluded that, following increases in infection rates and/or further mutations of the COVID-19 virus, quarantine and isolation requirements and other measures will be reimposed.

More broadly, Vulcan Group may also be affected by the macroeconomic effects and ensuing financial volatility resulting from the COVID-19 pandemic, in particular as reinforced by the recently increased spread of the COVID-19 virus in China and the effects of the Russia-Ukraine Conflict (see section "1.1.3 The Russian invasion of Ukraine, the sanctions imposed by numerous countries and

international organisations in response thereto and countermeasures implemented by Russia and Belarus have adversely affected, and may continue to adversely affect, the availability and price of equipment, components and energy, supply chains, international trade, financing conditions and the global economy at large, which has had, and may continue to have, a detrimental effect on Vulcan Group's business."), and any other possible outbreaks of contagious diseases or pandemics. While the final effects of the COVID-19 pandemic or other possible disease outbreaks are difficult to assess, in particular in conjunction with the negative economic effects of the Russia-Ukraine Conflict, it is possible that they will have a substantial negative effect on the economies in which Vulcan Group operates and could have an adverse effect on Vulcan Group's operations and financial performance.

1.2.11 Vulcan Group may lose its directors or other key personnel or may be unable to recruit or retain qualified personnel for key positions. Without such directors or key personnel Vulcan Group may not be able to successfully manage, develop and operate its business.

Vulcan Group has a strong management team across its different business sectors with longstanding industry experience, non-executive directors with extensive and relevant industry experience as well as a capable and experienced technical team across the fields of geothermal energy development, including geology and engineering, and lithium extraction (chemistry and chemical engineering). The Company believes that Vulcan Group's success greatly depends on the performance of its directors and its other key personnel, including engineers, consultants, managers and other staff, who are experts in the sector and markets in which it operates. In particular, Vulcan Group depends upon the services and the established personal networks of Dr Francis Wedin, the Managing Director/CEO of the Company and a geologist with a background in lithium exploration, and Dr Horst Kreuter, the managing director of Vulcan Energie, and a geologist with an extensive background in geothermal project development, to successfully manage, develop and operate its business.

Whilst Vulcan Group's strong environmental ethics and focus have proven to be an effective recruitment tool to date, there can be no assurance that Vulcan Group's efforts to retain and motivate its directors and key employees or attract and retain other highly qualified technical personnel will continue to be successful. Industry demand for highly qualified technical personnel, especially in the lithium sector, exceeds the number of personnel available, and the competition for attracting and retaining these employees is intense. Competition for qualified staff is particularly intense in Germany, where Vulcan Group employs 290 employees (full-time equivalents) as of the date of this Prospectus, and salaries paid to such staff in Germany are relatively high compared to other jurisdictions. The loss of any directors or key employees, or failure to attract new qualified employees, including qualified technical personnel, could impair Vulcan Group's further development. In order to achieve its strategic goals, Vulcan Group is targeting a significant increase in the number of staff over the next three to five years as it is planned to transition to an execution and production company. If Vulcan Group is unable to attract personnel to meet these requirements, it may be unable to achieve its strategy in the timeframe contemplated.

1.2.12 Vulcan Group's operations involve the use of heavy machinery, gas and chemical substances. Any technical or human error could harm physical integrity, life or property and, as a result, could have a material adverse effect on Vulcan Group's business, results of operations, prospects and reputation.

Vulcan Group's Zero Carbon Lithium™ Project is a highly complex project which incorporates many different engineering disciplines, and certain aspects (including, among other things, LHM production via electrolysis) of the project represent new applications of technologies. Vulcan Group's business includes large-scale construction, drilling operations, transport of goods and other use of heavy machinery as well as the handling of potentially hazardous chemical gas, substances and compounds. Whilst Vulcan Group has implemented a variety of health and safety measures to help prevent damage to individuals or property arising from Vulcan Group's construction, drilling and transport activities and use of heavy machinery or handling of chemicals, such activities, use or handling are distinctly complex and inherently risky. Each of these activities bear the risk that, as a result of technical or human error or other external factors, the individuals involved in these activities incur injuries, other physical damage or even loss of life or that property is damaged or otherwise affected. Any such damage to life, health or property resulting from Vulcan Group's operations could have a material adverse effect on its business, results of operations, prospects and reputation.

1.2.13 Vulcan Group could incur substantial losses from damage not covered by, or exceeding the coverage limits of, its insurance policies.

While Vulcan Group is insured against fire, natural disasters, operational interruptions, enterprise accident and third-party liability, its insurance policies are subject to exclusions and limitations of liability both in amount and with respect to the insured events. As a result, Vulcan Group's facilities or its employees may suffer physical damage resulting in losses that may not be covered by insurance, either fully or at all. In addition, there are certain types of losses, generally of a catastrophic nature or pandemic events, that may be uninsurable or are not economically insurable.

There can be no assurance that Vulcan Group's assessment that it is sufficiently insured in accordance with industry practice against contingencies is accurate. In addition, there can be no assurance that Vulcan Group will be able to maintain its current level and scope of coverage or obtain replacement insurance on acceptable terms or at all. Should an uninsured loss or a loss in excess of insured limits occur, Vulcan Group may lose capital invested or revenues or incur substantial costs which will not be recouped. Even where Vulcan Group has obtained sufficient insurance coverage, its insurance providers could become insolvent, requiring Vulcan Group to bear any liabilities and losses. If Vulcan Group suffers a loss or incurs a liability against which it is uninsured or insufficiently insured, this could adversely affect Vulcan Group's business, net assets, financial condition, cash flow, and results of operations.

1.2.14 Vulcan Group may fail to achieve its sustainability ambitions or fail to maintain current or obtain potential future ESG ratings and sustainability-related certifications, each of which could have a material adverse effect on its business, assets, results of operations, financial condition, prospects and reputation.

Vulcan Group has a clear goal and strategy built around implementing the Zero Carbon Lithium™ Project as the world's first net zero carbon footprint lithium production project. Whilst Vulcan Group plans to use zero Scope 1 fossil fuels (i.e. direct Company-owned or -controlled fossil fuels used at the source) to power its process, the Company recognises that across any industrial plant development it is impossible to truly have zero greenhouse gas ("**GHG**") emissions, especially during construction. In addition, beyond Vulcan Group's ambition to maintain a net zero carbon position, Vulcan Group has determined and imposed on itself certain core values, referred to as "Vulcan Values", and other benchmark goals and requirements in the area of sustainability and environmental, social and governance ("**ESG**").

As the successful implementation of the Zero Carbon Lithium™ Project is both a commercial goal of the Company as well as critical for Vulcan Group's ambition to implement the world's first net zero carbon footprint lithium production project, any failure or significant delay by Vulcan Group to achieve these ambitions could have a material adverse effect on its business, assets, results of operations, financial condition, prospects and reputation. In particular, should Vulcan Group fail to implement the Zero Carbon Lithium™ Project, to maintain its net zero carbon position or to meet its sustainability goals and requirements more generally, it may become the subject of adverse attention by investors, customers, environmental and climate activists, non-profits, the media or the public more generally. Moreover, Vulcan Group could face sustainability-related legal disputes brought by investors, customers, environmental and climate activists or other stakeholders regarding its sustainability claims and achievements. For instance, cases on alleged problematic advertisements with claims of environmentally friendly services increased significantly in recent years, and courts generally pay close attention to advertising with sustainability claims to the public. Advertising the Zero Carbon Lithium™ Project under this name or more widely as having a „net zero carbon footprint“ or as “carbon neutral” bears the risk of being considered a problematic statement, in particular if the entire process, possibly including the construction phase, is not in fact carbon neutral and a court considers additional information on which parts of the project are emission-free or which measures (e.g., neutralisation or offsetting) are implemented to achieve carbon neutrality are not sufficiently clear. Should any of these scenarios materialize, this could have a material adverse effect on Vulcan Group's business, assets, results of operations, financial condition, prospects and reputation.

Moreover, Vulcan Group has received certain ratings and certifications in the area of ESG and sustainability more generally from third parties in the past, and Vulcan Group may obtain further ESG ratings and sustainability-related certifications from third parties in the future. For example, as of the date of this Prospectus, Vulcan Group holds an ESG risk rating from Sustainalytics GmbH ("**Sustainalytics**") and a certification as a carbon neutral organisation for 2021 by Climate Active and South Pole. ESG ratings and sustainability-related certifications may inform and contribute to defining the expectations of investors, customers and other stakeholders of Vulcan Group in the market. As they are issued by third parties not controlled by Vulcan Group, there is no assurance

that an existing or potential future ESG rating or sustainability-related certification will remain constant for any given period of time or that Vulcan Group's ESG rating or sustainability-related certification will not be downgraded or withdrawn entirely if, in the relevant third party's judgment, circumstances in the future so justify or warrant. Should Vulcan Group fail to maintain existing ESG ratings and sustainability-related certifications or to obtain potential future ratings and certifications, investors', customers' and other stakeholders' expectations may not or no longer be met which may have a negative effect on the Company's reputation. Moreover, this could, directly or indirectly, affect Vulcan Group's business by, for example, making Vulcan Group less attractive for certain groups of investors. Certain investors may even be required or choose to sell their holdings in the Company due to their own ESG- or sustainability-related investment criteria, which could have a negative impact on the Company's share price and make Vulcan Group's access to capital markets more difficult. Also, should customers negatively perceive Vulcan Group's efforts in the ESG and sustainability space, as a result of the downgrade or withdrawal of an ESG rating or sustainability-related certification, negative media attention or for other reasons, this might reduce Vulcan Group's customer base and, as a result, its competitive position within the overall market.

Also, the methodologies underlying ESG ratings or sustainability-related certifications are determined by the relevant third-party issuers and are subject to change. Moreover, such methodologies are often complex and non-transparent. It can therefore not be guaranteed that the methodology used by any third-party issuer which has currently rated or certified, or will in the future rate or certify, Vulcan Group's ESG- or sustainability-related performance or ambitions will conform with the expectations or requirements of any particular group of investors (or their respective ESG- or sustainability-related investment criteria), customers or other stakeholders. It can also not be assured that any such methodology will comply with any present or future applicable standards, recommendations, criteria, laws, regulations, guidelines or listing rules. As a result, ESG ratings and sustainability-related certifications of Vulcan Group are not necessarily indicative of Vulcan Group's past, current or future commitment to, or performance in respect of, ESG- or sustainability-related topics and may have limited, if any, utility for investors in assessing Vulcan Group's past, current or future financial performance.

Any of the foregoing risks, if they materialize, could have a material adverse effect on Vulcan Group's business, assets, results of operations, financial condition and prospects.

1.3 Financing Risks and Financial Disclosure Risks

1.3.1 Significant future funding will be required by Vulcan Group to support the further implementation of its Zero Carbon Lithium™ Project. If Vulcan Group is unable to obtain additional financing as needed on acceptable terms or at all, it may need to abandon its development plans or reduce and/or change their scope which may, in turn, adversely affect Vulcan Group's operations.

Significant future funding will be required by Vulcan Group to support the further implementation of its Zero Carbon Lithium™ Project. Vulcan Group does not currently generate significant revenue and will, therefore, be dependent upon obtaining external financing to meet these funding needs. According to Vulcan Group's DFS, the total capital expenditure (not including financing costs) required for Phase One of the Zero Carbon Lithium™ Project is expected to be approximately EUR 1,496 million (including contingencies). On the basis that the implementation of Phase Two is targeted to achieve similar production levels as, and in addition to those of, Phase One, the Company currently anticipates a materially similar additional amount to be required for Phase Two, subject to the completion of a definitive feasibility study for Phase Two (expected during the course of 2023). However, the exact amount of future capital requirements will be further refined as the Company advances the project and may significantly deviate from Vulcan Group's estimates and additional funds may be needed to fully develop the Zero Carbon Lithium™ Project and extract and process the lithium and geothermal energy (see section "1.1.1 Battery raw materials and geothermal energy exploration and development are high-risk undertakings and there is no assurance that Vulcan Group's exploration activities will result in the commercial extraction of lithium or sustainable production of geothermal renewable energy."). In particular, as the Company has not completed a definitive feasibility study in relation to Phase Two, there remains significant uncertainty regarding the funding requirements for Phase Two. The ability to develop the Zero Carbon Lithium™ Project will depend on the future availability of further funding. Vulcan Group expects to finance the Zero Carbon Lithium™ Project through a combination of green financing and, potentially, syndicated senior debt, hybrid debt, equity investment from third parties at the level of project-related special purpose vehicles (project level) and/or further equity fundraising in the capital markets at the parent level (if needed). Vulcan Group is targeting to fund approximately 65% of the Phase One capital

expenditure requirements through debt financing and to fund the balance through equity funding (including at the project level). Regarding project level equity financing, Vulcan Group is engaging with potential strategic partners to invest at the project level and also provide expertise to develop and execute the Zero Carbon Lithium™ Project and, in April 2023, the Company signed a term sheet regarding a proposed strategic partnership with Nobian in respect of the CLP, subject to definitive agreements. Vulcan Group has separately established a special purpose vehicle to own the plant and infrastructure associated with the production of renewable energy and LHM other than the CLP, including land, wells, pipelines and geothermal and lithium extraction plants, and intends to deploy a similar strategy as with the CLP to obtain project-level equity investment; however, it has not yet entered into any agreements or term sheets with respect to such investment (see section "1.2.6 *The Company may be unable to achieve the expected benefits from past acquisitions, partnerships and joint-ventures or successfully execute future acquisitions, partnerships and joint-ventures that it may pursue to execute its strategy and development plans.*").

Regarding debt financing, Vulcan Group is engaging with a number of institutions including the European Investment Bank (EIB), Export Credit Agencies (ECAs) and commercial banks, with non-binding in-principle support and confirmation of eligibility for the provision of funding for the Zero Carbon Lithium™ Project received from several Export Credit Agencies, including in France, Italy and Canada, subject to certain conditions. Vulcan Group may also consider the bond market once in production. However, Vulcan Group has not yet entered into any binding agreement with respect to any debt financing, whether from ECAs or otherwise, or agreed the terms of any further financing, and there can be no assurance that the Company will be able to complete binding agreements for debt financing on acceptable terms or at all. Management plans to consider appropriate options for obtaining further funding at the relevant times.

The Company is in the process of finalising its funding plan for Phase One based on the DFS for Phase One and is targeting completion of the debt and equity financing process for Phase One in the first quarter of 2024.

Any additional equity financing (whether at the Company level or the project level) may be dilutive to the Company's shareholders, and debt financing, if available at acceptable terms or at all, may involve restrictive covenants or other limitations on financing and operating activities, including the future potential payment of dividends, and result in a material interest expense. If Vulcan Group is unable to obtain additional financing as needed on acceptable terms or at all, it may be required to abandon or reduce and/or change the scope of its development plans which may, in turn, adversely affect Vulcan Group's operations.

1.3.2 As it is envisaged to incur significant debt in the future, an increase in interest rates would likely increase Vulcan Group's costs for its future debt financing arrangements.

Historically, Vulcan Group's finance costs have been minimal. Significant future funding for its Phase One and Phase Two developments will, however, be required by Vulcan Group to support the further implementation of its Zero Carbon Lithium™ Project. The Company anticipates that the proportionate mix of debt and equity financing may vary depending on the part of the business to which the funding relates. Based on Vulcan Group's DFS, the Company expects the funding for the development of the renewable energy business (which represents a more mature industry), estimated at approximately EUR 657 million of the Phase One capital expenditure funding requirement, may be comprised of a larger proportion of debt financing than the funding for the development of the lithium business, which is estimated at approximately EUR 839 million of the Phase One capital expenditure funding requirement. On the basis that the implementation of Phase Two is targeted to achieve similar production levels as, and in addition to those of, Phase One, the Company currently anticipates a materially similar additional amount for Phase Two, subject to the completion of a definitive feasibility study for Phase Two (expected during the course of 2023). As the Company has not completed a definitive feasibility study in relation to Phase Two, there remains significant uncertainty regarding the funding requirements for Phase Two. The exact level of capital expenditure required for the Zero Carbon Lithium™ Project will be further refined as the Company advances the project. Each of these funding requirements is expected to be comprised of a combination of debt and equity financing (see section "1.3.1 *Significant future funding will be required by Vulcan Group to support the further implementation of its Zero Carbon Lithium™ Project. If Vulcan Group is unable to obtain additional financing as needed on acceptable terms or at all, it may need to abandon its development plans or reduce and/or change their scope which may, in turn, adversely affect Vulcan Group's operations.*"). Although Vulcan Group has not yet entered into or agreed the terms of any debt facility, the Company expects that, once entered into, Vulcan Group will have a material interest

expense, which may be at a variable rate. As such, the amount of interest payable by the Company would ultimately be a function of the prevailing interest rates available to Vulcan Group. Prior to, and even more since, the Russia-Ukraine Conflict, central banks including, among others, the ECB, have increased interest rates substantially to counter inflationary trends, driving up prevailing interest rates offered by credit institutions for commercial lending. For example, inflation rates across the Eurozone have increased from 1.3% in March 2021 to 10.1% in November 2022, with only slight decreases recorded thereafter (source: harmonised index of consumer prices (HICP) of the ECB). Potential further increases in interest rates during the development phase or once commercial production commences could ultimately lead to a higher interest expense, causing overall financing costs to be significantly higher than currently anticipated. In the absence of any material revenue before the commencement of commercial production, these finance costs would generate additional losses before taxation for the foreseeable future. These losses may be compounded if the Company is forced to incur more debt than currently expected, for example, if the Company is required to finance cost overruns in connection with the Zero Carbon Lithium™ Project.

1.3.3 Vulcan Group is exposed to foreign currency exchange risks.

The audited consolidated annual financial statements of the Company prepared in accordance with Australian Accounting Standards and Interpretations ("**AASI**") issued by the Australian Accounting Standards Board ("**AASB**") and the Australian Corporations Act as of and for the financial year ended 30 June 2021 (the "**Consolidated Annual Financial Statements 2021**") and the audited consolidated annual financial statements of the Company prepared in accordance with AASI and the Australian Corporations Act as of and for the financial year ended 30 June 2020 (the "**Consolidated Annual Financial Statements 2020**") included in this Prospectus are presented in Australian dollars, which was the Company's presentational currency until the end of the financial year ended 30 June 2021. Therefore, Vulcan Group has had significant translational exchange rate risk as a result of its presentational currency being Australian dollars while a material part of its business is carried out in currencies other than Australian dollar, in particular in euro as the material assets of Vulcan Group are located in Germany. Vulcan Group changed its presentational currency to euro as of 1 July 2021 and, as a result, the audited consolidated financial statements of the Company prepared in accordance with AASI and the Australian Corporations Act as of and for the short (six month) financial year ended 31 December 2022 (the "**Consolidated Short Financial Year Financial Statements 2022**") and the audited consolidated annual financial statements of the Company prepared in accordance with AASI and the Australian Corporations Act as of and for the financial year ended 30 June 2022 (the "**Consolidated Annual Financial Statements 2022**") included in this Prospectus are presented in euro.

Since the change of its presentational currency to euro, the translational exchange rate risk mainly relates to cash held by Vulcan Group in Australian dollars. Although Vulcan Group has hedged a significant portion of this residual exchange rate risk in relation to Australian dollar cash reserves through the conversion of Australian dollar reserves into euro, it has retained a level of Australian dollar cash reserves.

Vulcan Group expects that LHM sales will be principally to European customers and denominated in EUR (which is Vulcan Group's presentational currency since the financial year ending 30 June 2022), although it is possible that in the future Vulcan Group may export a portion of its LHM outside of Europe, in which case the associated revenues may be denominated in other currencies, principally the US dollar. Vulcan Group's costs have to date been incurred in a combination of Australian dollars, euro and Norwegian krone (the latter relating mainly to the business of Kuniko Limited (ASX Code: KNI) ("**Kuniko**") which was deconsolidated in 2021); however, as Vulcan Group's Zero Carbon Lithium™ Project in the Upper Rhine Valley ramps up towards construction and production, the majority of Vulcan Group's costs is expected to be incurred in euro. Until the change of Vulcan Group's presentational currency to euro, Vulcan Group's financial performance was, therefore, subject to fluctuations as a result of foreign currency exchange rate movements whenever financial information was translated from non-Australian dollar currencies and, since the change of Vulcan Group's presentational currency to euro, Vulcan Group's financial performance is subject to the translation of financial information from non-euro currencies.

In addition to the translational impact of exchange rate fluctuations, Vulcan Group is exposed to transactional exchange rate risk, which arises as a result of payments Vulcan Group makes or receives in local currencies. For the financial year ended 30 June 2020 and the financial year ended 30 June 2021 (during which years Vulcan Group did not earn material revenue), approximately nil and 52%, respectively, of Vulcan Group's revenue was earned in currencies other than Australian dollars and approximately 10% and 15%, respectively, of Vulcan Group's expenses were incurred in

currencies other than Australian dollars. For the financial year ended 30 June 2022, 2% of Vulcan Group revenue (excluding one off gain on deconsolidation of Kuniko and loss from investment in associate) was earned in currencies other than euros and approximately 38% of Vulcan Group's expenses (excluding income tax expense) were in currencies other than euros. For the short six-month financial year ended 31 December 2022, 6% of Vulcan Group revenue was earned in currencies other than euros and approximately 22% of Vulcan Group's expenses (excluding income tax expense) were in currencies other than euros. Vulcan Group expects that, going forward, a degree of transactional exchange rate risk will remain as certain materials will need to be imported from outside the Eurozone, with costs in currencies other than euro.

Moreover, pricing under the lithium offtake agreements concluded by Vulcan Group is a mix of fixed price and indexation based on market prices calculated by reference to certain indices. The indices commonly used are Price Reporting Agency ("PRA") contract indices as provided by, for example, Fastmarkets. These indices are currently quoted in US dollars, exposing Vulcan Group to a transactional exchange rate risk. While Vulcan Group expects that by the time it commences commercial production indices quotes in euro may become available for the European market, there can be no assurance that this will be the case. Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at period end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in profit or loss.

Additionally, as the Company may receive the proceeds from the Private Placement in a combination of Australian dollars and euro, the Company will be subject to exchange rate risk if and when it converts Australian dollar proceeds into euro (or vice versa).

1.4 Regulatory Risks

1.4.1 Vulcan Group's risk management or compliance systems may not have been, or may not be, sufficient to adequately prevent or detect legal, tax and operational risks.

Vulcan Group's business is subject to various laws and regulations relating to, among other things, compliance with capital markets, environmental, mining, energy, antitrust, data protection, employment and tax laws and regulations. While Vulcan Group is not aware of any material breaches of applicable laws and regulations, it can neither guarantee that it has always been in full compliance with such laws and regulations in the past in the jurisdictions in which it operates, nor that it will be able to fully comply with them in the future. Vulcan Group is reliant on the compliance of its directors and employees with applicable laws and compliance policies implemented by Vulcan Group and there can be no assurance that directors or employees of Vulcan Group or third parties acting on Vulcan Group's behalf, have not engaged in or will not engage in criminal, unlawful or unethical behaviour. Existing risk management and internal compliance procedures and controls may not be sufficient to prevent or detect inadequate practices, fraud or violations of law by its directors, its employees or third parties acting on its behalf. The laws and regulations in the areas and jurisdictions in which Vulcan Group currently operates or may operate in the future are evolving. Consequently, such laws and regulations may change and sometimes may conflict with each other, making it more difficult to observe and comply with them. Moreover, as a result of its dual listing in Australia and Germany, the Company is subject to additional requirements which requires it to maintain robust compliance procedures and controls. Maintaining, revising or enhancing risk management and internal compliance procedures and controls to accommodate overlapping, conflicting, changed or new laws and regulations require, and may going forward continue to require, the Company to incur significant cost and take significant management time, and there can be no assurance that the procedures and controls will adequately protect the Company from legal and operational risks.

In addition, effective internal controls are necessary for Vulcan Group to provide accurate and reliable financial reports. However, an internal control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the internal control system are met. Accordingly, there can be no assurance that all issues will be detected and Vulcan Group cannot be certain that it will be successful in maintaining adequate internal control over its financial reporting and financial processes. Furthermore, Vulcan Group is required to comply with stringent, overlapping and at times conflicting obligations in connection with the dual listing in Australia and in Germany. As Vulcan Group continues to grow its business, its internal controls will need to become more complex and it will require more resources to ensure its internal controls remain effective. Additionally, the existence of any material weakness or significant deficiencies

could require management to devote significant time and incur significant expense to remediate any such material weaknesses or significant deficiencies and management may not be able to remediate any such material weaknesses or significant deficiencies in a timely manner. If Vulcan Group's internal controls are insufficient to prevent errors in Vulcan Group's financial statements, it would be required to restate its financial statements, causing it to fail to meet its reporting obligations and potentially causing shareholders to lose confidence in its reported financial information, all of which could have an adverse effect on the price of the Shares as well as Vulcan Group's reputation, business, net assets, financial condition, cash flow, and results of operations. This could also cause the price of the Shares to fall, in which case investors could lose some or all of their investment.

Inadequate risk management or compliance measures may cause irregularities that could lead to, among other things, losses or delays in the development of Vulcan Group's business, or to official investigations or third-party claims against Vulcan Group, which in turn could have significant financial, reputational and other consequences. These consequences could include significant penalties, damage claims and sanctions, including sanctions imposed by the German Federal Financial Supervisory Authority (*Bundesanstalt für Finanzdienstleistungsaufsicht*) in connection with potential breaches of post-listing obligations, as well as considerable damage to Vulcan Group's reputation. If Vulcan Group suffered any of these consequences, it could have an adverse effect on its business, net assets, financial condition, cash flow, and results of operations.

1.4.2 Vulcan Group is subject to laws and regulations in a number of jurisdictions which may impose costs and affect Vulcan Group's business or results, and non-compliance with existing laws and regulations, in particular environmental laws or foreign investment laws, or changes in any such laws and regulations could result in Vulcan Group incurring costs in order to take additional steps to ensure future compliance.

As a group operating in more than one jurisdiction, Vulcan Group is subject to Australian, European Union, German, French, Italian and other national and local laws, regulations and ordinances. Vulcan Group must observe a large number of different regulatory requirements. For its operations Vulcan Group is required to obtain and hold various permits. The laws and regulations that Vulcan Group is subject to change frequently, evolve constantly and may become more stringent. Vulcan Group may be required to incur significant costs and devote significant management time to adapting its exploration or production processes and operating policies to changes in applicable laws, and regulations and there can be no assurance that its efforts will ensure it is in compliance with such laws and regulations. If Vulcan Group does not comply with existing, changed or new laws and regulations, it may be required to take remedial actions that could be costly and time consuming, and it may also be subject to fines, administrative penalties, claims for damages and, potentially, criminal charges.

Whilst Vulcan Group's main goal is to develop commercial lithium production with leading environmental credentials, as with most lithium extraction projects, renewable energy projects and brine extraction operations, Vulcan Group's activities are expected to have some impact on the environment. Many of the activities and operations of Vulcan Group are environmentally sensitive and cannot be carried out without prior approval from all relevant authorities and compliance with all relevant laws and regulations. Violations of environmental laws and regulations may lead to significant sanctions including the shutdown of affected facilities and administrative fines and could also result in payment of damages to affected parties. Environmental legislation is evolving in a manner that may require stricter standards and enforcement, increased fines and penalties for non-compliance, more stringent environmental assessments of proposed projects, and a heightened degree of responsibility for renewable energy, brine and mineral extraction companies and their directors and employees. For example, the European Chemicals Agency ("**ECHA**") has recently put forward a proposal to re-classify lithium as a category 1A chemical, on a similar level as cobalt, which, if adopted by the EU Commission as proposed, could increase regulatory requirements around controlling, processing, packaging and storage of lithium. Additionally, the re-classification could stigmatise lithium resulting in damage to Vulcan Group's reputation and negatively affecting acceptance of lithium-related projects. As Vulcan Group is attempting a distinct process of extracting lithium from geothermal brine with net zero carbon footprint, of which there are, in Vulcan Group's view, no comparable operating commercial precedents in Germany, there are significant unknowns with regard to the permitting process, duration with authorities and related costs for the Company. In addition, authorities in Denmark, Germany, the Netherlands, Norway and Sweden have recently submitted to ECHA a proposal for the restriction of per- and polyfluoroalkyl substances aimed at reducing such substances' emissions into the environment which is subject to public consultation until September 2023. If adopted as proposed, it could result in the phasing out of the use of

polytetrafluoroethylene polymer, or PTFE, membranes which could lead to delays or cost increases in the Company's operations, the length and financial cost of which would depend on the availability of alternatives at the time. Moreover, the disposal of mineral production and process waste and brine re-injection are under constant legislative scrutiny and regulation. There is a risk that environmental laws and regulations become more onerous making Vulcan Group's operations more expensive. Such increase of applicable regulatory requirements could result in additional cost for Vulcan Group to ensure compliance with such laws including, among others, costs for legal advice or remediation measures, if required. Moreover, approvals are required for land clearing and for ground disturbing activities. Delays in obtaining such approvals can result in the delay to anticipated exploration programmes or brine production activities.

Also, extractive businesses, such as the business carried out by Vulcan Group, often face concerns or opposition from local residents and other stakeholders regarding actual or potential breaches of conditions, risks to human health or the environment or other issues which are voiced in public participation processes or otherwise (see section "1.2.4 *Vulcan Group's projects may face opposition from local residents and other stakeholders, which may result in delays, additional costs, discontinuation of construction or operations and uncertainty.*") and may consume substantial time and cost and cause reputational risk and uncertainty.

In addition, as the Company is an Australian company and its operating subsidiaries and significant assets are based in Germany and France, Vulcan Group's assets are subject to risks with regard to their extraterritoriality such as changes in laws, practices and policies in the relevant jurisdictions, including laws that deal with overseas investors. In particular, changes to investment policies and legislation or a shift in political attitude may adversely affect Vulcan Group's operations and profitability. In particular, while there are currently no restrictions on the foreign ownership of lithium extraction companies in Germany and France, there can be no assurance that the requirements of the various governments in respect of foreign ownership and control of mining companies will not change. It is not possible for Vulcan Group to accurately predict such developments or changes in laws or policy or to what extent any such developments or changes may have a material adverse effect on Vulcan Group's operations.

The occurrence of any of these risks could adversely affect Vulcan Group's business, net assets, financial condition, cash flow, and results of operations.

1.5 Legal and Tax Risks

1.5.1 Vulcan Group is exposed to risks from potential future litigation and other legal and regulatory actions and risks, and could incur significant liabilities and substantial legal fees.

Whilst Vulcan Group is not aware of any current or anticipated litigation, Vulcan Group may become a party to legal disputes, administrative proceedings and government investigations. Such legal disputes, proceedings and investigations may, in particular, arise from its relationships with its contractual counterparties, end-customers and public authorities and could allege, among other things, breaches of contract, tort or the failure to comply with applicable laws and regulations. There may also be investigations by governmental authorities into circumstances of which Vulcan Group is not currently aware or which may arise in the future, including possible regulatory and environmental complaints, licencing challenges or criminal proceedings.

If Vulcan Group were to be found liable under any such claims, lawsuits or investigations it might be required to pay damages or fines and to take, or refrain from taking, certain actions and it could incur substantial costs and divert substantial amounts of management's time in dealing with them, even if they are unsuccessful, any of which could adversely affect its business, net assets, financial condition, cash flow, and results of operations.

1.5.2 Vulcan Group might be unable to adequately protect its intellectual property rights.

Vulcan Group believes its know-how and proprietary technology is critical to its success. It has sought protection of its proprietary technology through obtaining a German utility model registration and has filed a European patent and a Patent Cooperation Treaty (PCT) (international) application as well as applied for related national/regional patents in Europe, Australia, Canada, Chile, China, Japan, Korea and the US, all of which are material to its business. Vulcan Group also relies on trade secret protection through non-disclosure agreements and other methods to protect its proprietary rights. Vulcan Group has also filed various trademark applications for its brands in Europe, United

Kingdom, New Zealand, Australia, the US, Canada and Japan. Vulcan Group is subject to a number of risks in adequately protecting its intellectual property, including that:

- Vulcan Group might not be able to obtain and maintain effective intellectual property protection, e.g. where its applications fail, or in China, Vulcan Group did not obtain trademark protection for a logo including the "Zero Carbon Lithium" wording and plans to rely on using designations and logos without this wording instead;
- Vulcan Group may be required to expend significant resources (including financial, managerial and operational resources) to monitor and protect its intellectual property rights;
- any of Vulcan Group's intellectual property rights could be challenged or invalidated through administrative processes or litigation;
- Vulcan Group may not discover any infringement or violation of its intellectual property rights by a third party, or the extent of any such infringement or other violation, or, to the extent discovered, may not be successful in any claims or litigation against that third party; and
- Vulcan Group's competitors may independently develop or otherwise acquire equivalent or superior technology or intellectual property rights.

Vulcan Group may not be successful in maintaining the confidentiality or legal protection of its know-how and trade secrets. Employing adequate protection measures to protect confidentiality is a requirement for legal protection as trade secrets in some jurisdictions.

In addition, Vulcan Group may inadvertently infringe the intellectual property rights of third parties. The realisation of any such risks, alone or in combination, could have a material adverse effect on Vulcan Group's operations or financial performance.

1.5.3 Vulcan Group is currently subject to the tax laws and regulations of Australia and Germany. Its tax burden may increase as a consequence of current or future tax assessments or court proceedings in connection with changes in domestic or foreign tax laws and double taxation treaties or changes in the application or interpretation thereof. The Company's tax burden may also increase should it be considered tax resident of Germany or any other jurisdiction.

Vulcan Group is currently subject to the tax laws and regulations of Australia and Germany. Vulcan Group's tax liability depends on various aspects of tax laws and regulations including Australian and German domestic tax laws and regulations and double taxation treaties concluded, in particular, between Australia and Germany. Due to Vulcan Group's international business activities, Vulcan Group is constantly exposed to risks arising from the application of international tax concepts used for the purpose of allocating taxing rights between countries, for example the concepts of tax residency or permanent establishment as used, inter alia, in double taxation treaties. Amendments to tax laws and double taxation treaties may have a retroactive effect, and their application or interpretation by tax authorities or courts is subject to change and may not be anticipated by Vulcan Group. Furthermore, tax authorities occasionally limit court decisions to their specific facts by way of non-application decrees which results in additional uncertainties regarding the interpretation of tax law and regulations.

Vulcan Group is subject to regular tax audits in the jurisdictions in which it conducts its operations. As the result of an audit, Vulcan Group may incur additional tax payments as well as penalties and late payment charges resulting from the corresponding tax assessments.

The Company is currently considered a tax resident of Australia for domestic tax law purposes. If the Company's central administration or place of effective management were considered not to be located where its registered office is situated, the Company could be regarded as being a tax resident of another jurisdiction. The tax authorities may challenge the Company's central administration or place of effective management both for previous years or in the future. In addition, business needs and the structure of Vulcan Group may in the near term evolve such that the Company becomes tax resident of another jurisdiction. If the tax authorities decide to challenge the Company's central administration or place of effective management or determine that the Company is or has become

tax resident of another jurisdiction, there could be unanticipated adverse tax consequences for the Company, but also for the Company's shareholders, possibly on a retroactive basis.

The materialisation of any of these risks could have a material adverse effect on its business, net assets, financial condition, cash flow, and results of operations.

1.5.4 The Company is incorporated in Australia and therefore the shareholders in the Company may be affected by the Australian tax regime which may also change from time to time.

The taxation of income from any future dividend payments, if any, as well as other income, for instance, from the sale of the Shares, may vary depending on the tax residence of the shareholder, as well as the existence and provisions of double tax treaties between a shareholder's country of residence and Australia. Tax provisions applying to particular shareholders may be unfavourable and/or may change in the future, in a way which has an adverse effect on the tax treatment of a shareholder's holding of the Shares.

1.6 Risks related to the Shares, the Admission to Trading and the Private Placement

1.6.1 The market price and trading volume of the Shares could fluctuate considerably, including as between the ASX and the FSE, which may result in substantial losses for investors. Differences in market price, trading volume, settlement and clearing systems, trading currencies and transaction costs between the ASX and the FSE may hinder the transferability of the Shares between the ASX and the FSE.

The Shares of the Company being dual listed in Australia and Germany, the trading volume and price of the Shares may fluctuate significantly, including as between the ASX Limited ("**ASX**") and the regulated market (*Regulierter Markt*) of the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*) ("**FSE**"). Securities markets in general, particularly shares of issuers with a high risk profile (as is the case in respect of Vulcan Group), have been volatile in the past. The price of the Shares quoted on the ASX or on the FSE on the date of the Prospectus may not be indicative of the prevailing market price of the Company's Shares from time to time.

Among other factors, negative reports regarding the Company or the Shares issued by short sellers (so-called "short seller attacks") or other market participants could negatively and significantly impact the price of the Shares or result in large fluctuations in the price or trading volume of the Shares. The Company has in the past been the target of a negative report by a short seller, which led to a substantial decrease in the market price of the Company's Shares, and the Company may also in the future become the target of such reports which may increase the risk of litigation proceedings being instituted (see section "1.5.1 *Vulcan Group is exposed to risks from potential future litigation and other legal and regulatory actions and risks, and could incur significant liabilities and substantial legal fees.*").

Further factors that could negatively affect the price of the Shares or result in fluctuations in the price or trading volume of the Shares include (but are not limited to):

- General (geo-)political and macro-economic trends and developments such as armed conflicts, trade wars, inflationary trends, increases of interest rates and other central bank measures;
- changes in Vulcan Group's implementation of strategy and failure to implement its exploration and production goals within the envisaged timeframe;
- changes in the Company's actual or projected results of operations or those of its competitors;
- changes in earnings projections or failure to meet investors' and analysts' earnings expectations;
- announcements by the Company to the market;

- investors' evaluations of the success and effects of the strategy described in this Prospectus;
- large purchases or sales of Shares of the Company; and
- any of the risk factors referred to in this Prospectus occurring.

Many of these factors are outside of the Company's control. Additionally, general fluctuations in share prices, particularly prices of shares of companies in the lithium and renewable energy sector, could affect the price of the Company's shares, even where there may not necessarily be a reason for this in the Company's business or performance.

In addition, as a result of the dual listing of the Company's Shares on the ASX and the FSE, the trading volume and price of the Shares may at any time be different on either of the two exchanges. The Shares are quoted and traded in Australian Dollars on the ASX and are quoted and traded in euro on the FSE. Therefore, the price of the Shares on those exchanges may also differ due to exchange rate fluctuations. The Shares traded on the ASX are settled and cleared in A\$ through to the settlement facility known as the 'Clearing House Electronic Sub-register System' ("**CHESS**") operated by ASX Settlement Pty Limited (ABN 49 008 504 532), of 16-20 Bridge Street, Sydney, New South Wales 2000, Australia ("**ASX Settlement**") in accordance with the settlement operating rules of ASX Settlement. The shares traded on the FSE are settled and cleared in euro within the Clearstream system. Differences that occur in settlement and clearing systems, trading currencies, transaction costs and other factors may hinder the transferability of the Shares between the ASX and the FSE.

Any or all of these factors could result in material fluctuations in the price of Shares, which could lead to investors getting back less than they invested or a total loss of their investment. The Company does not have a fixed winding-up date and therefore, unless shareholders vote to wind up the Company, shareholders will only be able to realise their investment through the sale or transfer of their Shares.

1.6.2 Future capital increases could lead to a substantial dilution of shareholders' interests in the Company and their voting rights and may adversely affect the market price of the Shares.

The Company may in the future seek to raise additional capital through the issuance of additional Shares or other securities with conversion rights (for example, options, performance rights, convertible bonds and other convertible securities) or to implement existing or future stock option or employee incentive plans. The Company may also issue Shares or other securities as consideration for certain acquisitions or investments from time to time. An issuance of additional Shares or securities with a right to convert into equity, or the exercise of a stock option or employee incentive right could potentially affect the market price of Shares.

If such offerings of Shares or other securities with conversion rights are made (other than in respect of any pro rata offer to the Company's existing shareholders), these offerings would dilute the economic and voting rights of the Company's existing shareholders.

Because the timing and nature of any future offering would depend on market conditions at the time of the future offering, the Company cannot predict or estimate the amount, timing or nature of any future offering. Investors in the Company bear the risk that such future offerings could reduce the market price of Shares, in which case investors could lose some or all of their investment, and/or dilute their shareholdings.

While the Company will be subject to the constraints of the ASX Listing Rules regarding the percentage of its capital that it is able to issue in any 12-month period (other than with shareholder approval or where exceptions apply), existing shareholders may still be diluted as a result of such issues of Shares and fundraisings depending on how they are structured.

1.6.3 The Company faces additional administrative requirements from its dual listing on the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*) and on the ASX which need to be aligned with each other.

Since the admission of the Company's Shares to trading on the regulated market (*Regulierter Markt*) of the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*) and, simultaneously, to the sub-

segment thereof with additional post-admission obligations (Prime Standard) in February 2022, the Company is subject to both the German legal requirements for public companies listed on the Prime Standard and the Australian legal requirements for public companies listed on the securities exchange operated by ASX which are not consistent in all respects. As a result, at times, challenges arise for the Company in combining the listing requirements of both markets in a coherent manner. There can be no assurance that the Company's accounting, legal or other administrative functions will always be capable of responding to these overlapping and sometimes conflicting requirements without difficulties and inefficiencies or significant additional costs. Failure to comply with these requirements could expose the Company to delisting of its Shares on the regulated market of the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*), significant fines, sanctions and other regulatory action and potentially civil litigation. This could also cause the price of the Shares to fall, in which case investors could lose some or all of their investment.

The members of the management team are required to devote a substantial amount of time to these requirements that they might otherwise devote to other aspects of managing the Company's operations, and these requirements also entail substantial time commitments and costs for the accounting and legal departments and other administrative functions.

1.6.4 Holders of the Shares, in particular holders located in certain jurisdictions including the United States, may not be able to exercise their subscription rights or participate in future equity offerings.

Shareholders may not be able to participate in potential future equity offerings if they do not have the funds necessary to subscribe for new securities or if the subscription rights are excluded. The Company has in the past carried out share placements with the exclusion of existing shareholders' subscription rights and, in connection with the Private Placement, existing shareholders' subscription rights will also be excluded. In addition, securities laws of certain jurisdictions may restrict the Company's ability to allow participation by shareholders in future offerings. In particular, shareholders in the United States, including new shareholders resulting from the Private Placement, may not be entitled to participate in future offerings, unless either the Shares and any other securities that are offered and sold are registered under the United States Securities Act of 1933, as amended ("**US Securities Act**"), or the Shares and such other securities are offered pursuant to an exemption from, or in a transaction not subject to, the registration requirements of the US Securities Act. The Company cannot assure prospective investors that it will file any such registration statements, or that any exemption from such overseas securities law requirements would be available to enable US or other shareholders to participate in future offerings or, if available, that the Company will utilise any such exemption, each of which would result in shareholders in restricted jurisdictions being unable to participate in any such future issue. To the extent that US or other holders of the Shares are not able to participate in future equity offerings, their proportional interests in the Company would be diluted. Open market purchases to counteract such dilution could be possible only on terms which are less favourable than those offered to other shareholders in connection with such an equity offering.

1.6.5 The Company is incorporated in Australia and, as a result, it may not be possible for shareholders to enforce civil liability provisions of the securities laws of other countries, including for example the United States, against the Company, its Directors or officers.

The Company is incorporated under the laws of Australia and all of its assets are located outside the United States. In addition, apart from Ms Annie Liu, the members of the Company's board of directors (the "**Board of Directors**" and its members the "**Directors**") are non-residents of the United States. As a result, it may not be possible for the holders of the Company's Shares to effect service of process upon its Directors or officers within the United States or to enforce against the Company or its Directors or officers in the United States court judgements based on the civil liability provisions of the securities laws of the United States. Similarly, shareholders located in other jurisdictions in which neither Company's assets are located nor Directors or officers are resident may not be able to effect service of process upon, or to enforce against, the Company or its Directors or officers in the relevant jurisdiction court judgements based on the civil liability provisions of the securities laws of such jurisdiction.

1.6.6 If securities analysts downgrade the Company, the Company's Shares or the Company's sector, the share price and trading volume could decline.

The trading market for Shares will be influenced by, among other things, the research and reports that industry or securities analysts publish about the Company, its business, its markets, and its competitors. If any of the analysts who cover the Company issues an adverse opinion regarding the Company, the price of the Shares could decline. The Share price could also be adversely affected by reports about the Company's markets or its competitors, even if the reports do not directly address the Company. If one or more of these analysts cease coverage of the Company or fail to publish reports on it regularly, the Company could lose visibility in the financial markets, which in turn could cause the share price and/or trading volume of Shares to decline, in which case investors could lose some or all of their investment.

1.6.7 Future sales by shareholders of the Company, in particular large shareholders, could depress the price of the Shares.

As of the date of this Prospectus, the largest five shareholders of the Company hold more than 30% of its share capital. There are no lock-up agreements that preclude these shareholders from selling, distributing, transferring or otherwise disposing of any Shares in connection with, or at the occasion of, the Private Placement or at another point in time. If these or other larger shareholders were to sell substantial amounts of their shareholdings on the public exchange, or if market participants were to become convinced that such sales might occur, this could have adverse effects on the market price of the Shares, in which case investors could lose some or all of their investment.

1.6.8 The Company may invest or spend the proceeds of the Private Placement in ways with which shareholders may not agree or in ways which may not yield a return or enhance the price of the shares.

The Company may decide to use the net proceeds the Company receives from the Private Placement differently from its intention as of the date of this Prospectus. The Company's Board will have ultimate discretion in the application of net proceeds, and shareholders will not have the opportunity, as part of their investment decision, to assess whether the proceeds are being used appropriately.

2. GENERAL INFORMATION

2.1 Responsibility for the content of this Prospectus

Vulcan Energy Resources Limited, whose registered office is at Level 2, 267 St Georges Terrace, Perth WA 6000, Australia, legal entity identifier ("**LEI**") 8945006OYFHQ9HE4XE54, ACN 624 223 132 (hereinafter the "**Company**" and together with its consolidated subsidiaries, "**Vulcan Group**") assumes responsibility for the contents of this prospectus (the "**Prospectus**") pursuant to section 8 of the German Securities Prospectus Act (*Wertpapierprospektgesetz*) in conjunction with Article 11 of Regulation (EU) 2017/1129 of the European Parliament and of the Council of 14 June 2017 on the prospectus to be published when securities are offered to the public or admitted to trading on a regulated market, and repealing Directive 2003/71/EC, as amended (the "**Prospectus Regulation**") and hereby each confirms that, to the best of its knowledge, the information contained in this Prospectus is in accordance with the facts and that the Prospectus makes no omission likely to affect its import.

Kim Mohler, P.Eng. (GLJ Ltd, 1920, 401 – 9th Avenue S.W. Calgary, Alberta, Canada T2P 3C5) and Mark King, Ph.D, P.Geo. (Groundwater Insight Inc., 3 Melvin Road, Halifax NS B3P 2H5 Canada) have given and have not withdrawn their written consent to the inclusion in this Prospectus of the Competent Person Report set out in an annex to this Prospectus and have authorised the contents of the Competent Person Report as part of this Prospectus for the purposes of item 1.3 of Annex 1 of Commission Delegated Regulation (EU) 2019/980 of 14 March 2019 and have given and have not withdrawn their written consent to the publication of this document with the inclusion herein of the references to their name. As a professional engineer within the Association of Professional Engineers, Geologists and Geophysicists of Alberta and a professional geoscientist within the Association of Professional Geoscientists of Nova Scotia, respectively, each of Kim Mohler, P.Eng., and Mark King, Ph.D, P.Geo., possesses the professional qualifications required pursuant to the ESMA Update of the CESR Recommendations, 20 March 2013 | ESMA/2013/319 (margin number 133 i). a) i) (2)).

2.2 General disclaimers

If any claims are asserted before a court of law based on the information contained in this Prospectus, the investor appearing as plaintiff may have to bear the costs of translating this Prospectus prior to the commencement of the court proceedings pursuant to the national legislation of the member states of the European Economic Area (the "**EEA**").

The information contained in this Prospectus will not be supplemented subsequent to the date hereof, except for any significant new factor, material mistake or material inaccuracy relating to the information included in this Prospectus that may affect the assessment of the shares and that arises or is noted between the time when this Prospectus is approved and the time when trading of the Company's New Shares on the FSE and, simultaneously, on the sub-segment of the regulated market with additional post-admission obligations (Prime Standard) commences, which will be disclosed in a supplement to this Prospectus pursuant to article 23 of the Prospectus Regulation without undue delay. The obligation to supplement the Prospectus pursuant to article 23 of the Prospectus Regulation will no longer apply following the expiration of the validity of this Prospectus at the end of the first day of trading in the Company's New Shares on the FSE, currently expected to occur on 15 May 2023.

This Prospectus is not an offer, invitation, solicitation or other recommendation with respect to the subscription for, purchase or sale of any securities in Vulcan Group (including the New Shares) in any jurisdiction. This Prospectus has been prepared for the purposes set out in section 2.4 only and does not constitute a prospectus, product disclosure statement or other disclosure document under the Corporations Act 2001 (Cth) or any other offering document under Australian law or any other law, other than a listing prospectus for German regulatory purposes.

The Prospectus has been prepared for publication in Germany, and the distribution of this Prospectus (including any electronic copy of this Prospectus) outside of Germany may be restricted by law. Persons who come into possession of this Prospectus should observe any such restrictions, as any non-compliance could contravene applicable securities laws.

This Prospectus, and the information provided in it, does not constitute, and is not intended to constitute, financial product or investment advice, or a recommendation to acquire New Shares, nor does it constitute, and is not intended to constitute, accounting, legal or tax advice. This Prospectus does not, and will not, form any part of any contract for the acquisition of New Shares. This Prospectus has been prepared without taking into account the objectives, financial or tax situation

or particular needs of any individual. Before making an investment decision (including any investment in New Shares or Vulcan Group generally), prospective investors should consider the appropriateness of the information having regard to their own objectives, financial and tax situation and needs, and seek professional advice from their legal, financial, taxation or other independent adviser (having regard to the requirements of all relevant jurisdictions).

2.3 Approval of the Prospectus

This Prospectus has been approved by the German Federal Financial Supervisory Authority (*Bundesanstalt für Finanzdienstleistungsaufsicht* – "**BaFin**"), Marie-Curie-Straße 24-28, 60439 Frankfurt am Main, Germany, tel.: +49 228 4108 0, www.bafin.de, as the competent authority under the Prospectus Regulation, on 4 May 2023. BaFin only approves this Prospectus as meeting the standards for completeness, comprehensibility and consistency imposed by the Prospectus Regulation. Such approval should not be considered as an endorsement of the Company or of the quality of the Shares that are the subject of this Prospectus. Investors should make their own assessment as to the suitability of investing in the Shares.

This document is not a prospectus, product disclosure statement or other disclosure or offer document under the Corporations Act 2001 (Cth) or any other Australian laws, and will not be lodged with the Australian Securities and Investments Commission or any other financial service regulator in Australia.

2.4 Purpose of this Prospectus

This Prospectus relates to the admission to trading on the FSE with simultaneous admission to the sub-segment of the regulated market with additional post-admission obligations (Prime Standard) (the "**Admission to Trading**") of 21,400,000 New Shares from a capital increase against cash contributions (the "**Placement Capital Increase**") resolved by the Board of Directors on 3 May 2023, each such New Share with full dividend rights. The New Shares are expected to be admitted to trading on or about 12 May 2023 without a public offering of Shares in Germany, Australia or any other jurisdiction. The New Shares are expected to be simultaneously admitted to trading on the ASX.

2.5 Background to the Private Placement

2.5.1 Private Placement

In anticipation of the Admission to Trading, the Company, together with Merrill Lynch Equities (Australia) Limited, Level 34 Governor Phillip Tower, 1 Farrer Place, Sydney, New South Wales, Australia, LEI 5493000ZISK51SMQFR40, ABN 65 006 276 795 and Canaccord Genuity (Australia) Limited, Level 4, 60 Collins Street, Melbourne, Victoria, Australia, LEI 25490076B734BP7UYI53, ABN 19 075 071 466 (together the "**Underwriters**"), have initiated a private placement of 21,400,000 New Shares to be issued to institutional, professional and sophisticated investors at the Placement Price, to raise gross proceeds of EUR 65.91 million (A\$ 109.14 million).

The price per New Share to be issued in the Private Placement has been fixed in the Underwriting Agreement at EUR 3.08 and A\$ 5.10, respectively.

Settlement of the Private Placement is intended to be completed in accordance with the timetable set out below.

The Private Placement is fully underwritten by the Underwriters. Refer to section "2.5.3 Underwriting Agreement" for further details regarding the terms and conditions of the Underwriting Agreement.

The following is the expected timetable based on Central European Summer Time (CEST) of the Private Placement, which may be extended or shortened:

Event	Indicative Date
Launch of Private Placement and commencement of bookbuilding	3 May 2023
Trading halt on ASX	4 May 2023
Announcement of completion of bookbuilding	4 May 2023

Approval of Prospectus by BaFin and publication of Prospectus	4 May 2023
Trading halt on ASX lifted	5 May 2023
Receipt of proceeds of the Private Placement by the Company	11 May 2023
Issuance and settlement of New Shares	12 May 2023
Admission to trading on the FSE	12 May 2023
Commencement of trading of New Shares on the FSE and ASX	On or around 15 May 2023

2.5.2 Private Placement Structure

The Private Placement is exclusively addressed to qualified investors and fewer than 150 non-qualified investors in any member state of the EEA, including in Germany, or the United Kingdom and to institutional investors in certain other jurisdictions. The New Shares have not been and will not be registered under the US Securities Act, or the securities laws of any state or other jurisdiction of the United States of America ("**United States**") and may not be offered, sold or otherwise transferred within the United States, except pursuant to an exemption from, or in a transaction not subject to, the registration requirements of the US Securities Act and in compliance with any applicable securities laws of any state or other jurisdiction in the United States. In the United States, the New Shares will be offered and sold only to "qualified institutional buyers" as defined in Rule 144A under the US Securities Act and institutional "accredited investors" as defined in Rule 501(a)(1), (2), (3) or (7) under the US Securities Act, in each case pursuant to an exemption from the registration requirements of the US Securities Act. The New Shares offered or sold outside the United States will only be offered or sold in offshore transactions as defined in, and in reliance on, Regulation S under the US Securities Act.

2.5.3 Underwriting Agreement

On 3 May 2023, the Company and the Underwriters entered into an Underwriting Agreement with respect to the Private Placement and the New Shares.

In the Underwriting Agreement, the Underwriters have agreed, subject to certain conditions, to act as joint lead managers, underwriters and bookrunners in connection with the Placement. The Underwriters must use all reasonable endeavours to procure subscriptions for all New Shares, by offering those New Shares to institutional, professional, experienced and sophisticated investors, at the Placement Price. If the Underwriters are unable to procure subscriptions for all New Shares, the Underwriters must (in their respective proportions), subscribe for, or procure other investors to subscribe for, the shortfall. The Underwriters have agreed to remit to the Company gross proceeds raised from the Private Placement, minus the underwriting and management fees payable to the Underwriters and costs, one day prior to the day on which the New Shares are delivered to investors, which is expected to be 12 May 2023.

2.5.3.1 Conditions

The obligations of the Underwriters are subject to various conditions, including, among other things, (i) receipt of customary certificates, legal opinions and letters, (ii) the making of necessary filings and the receipt of necessary approvals in connection with the Private Placement.

2.5.3.2 Underwriting Fee

The Underwriters will procure subscriptions for the New Shares by offering them to institutional, professional, experienced and sophisticated investors, at the Placement Price, in the Private Placement. If the Underwriters are unable to procure subscriptions for all of the New Shares, the Underwriters must subscribe for, or procure other investors to subscribe for, any shortfall (in equal proportions). In return, they will receive from the Company an underwriting and management fee equal to 3.50% of the gross proceeds raised from the Private Placement, to be split equally between the Underwriters (in their respective proportions). In addition, Canaccord Genuity (Australia) Limited will be entitled to a global coordinator fee equal to 0.30% of the gross proceeds raised from the

Private Placement. The underwriting and management fee and the global coordinator fee payable to the Underwriters and Canaccord Genuity (Australia) Limited, respectively, may be withheld from the proceeds raised from the issue of the New Shares.

The Company has also agreed to reimburse the Underwriters for certain costs and expenses, including legal fees of their advisers. Commissions and the reimbursement of costs and expenses by the Company represent a major part of the costs of the Company in connection with the Private Placement and the Admission to Listing (also see section "2.5.6 *Costs of the Admission to Trading and the Private Placement*").

2.5.3.3 Termination and Indemnification

The Underwriting Agreement provides that the Underwriters may, under certain circumstances, terminate the Underwriting Agreement. Reasons for termination include, in particular, the occurrence of:

(a) one or more of the following events:

- (i) an outbreak or escalation of hostilities or a state of emergency declaration involving any of Australia, the United States, the United Kingdom, Japan, Hong Kong, Ukraine, a member state of NATO or a member of the European Union is declared in any of those countries, or there is a major act of terrorism anywhere in the world;
- (ii) a general moratorium on commercial banking activities in Australia, the United States, Germany or the United Kingdom, is declared by the relevant banking authority in any of those countries, or there is a material disruption in commercial banking or security settlement or clearance services in any of those countries;
- (iii) trading in all securities quoted or listed on ASX, FSE, the London Stock Exchange or the New York Stock Exchange is suspended or limited in a material respect for one day on which that exchange is open for trading ("**Trading Day**"), or substantially all of a Trading Day, excluding any suspension or limitation of trading caused by or in connection with any technical or systems failure;
- (iv) an adverse change or disruption to the political conditions or financial markets of Australia, the United Kingdom, the United States, Hong Kong, Japan, Germany or the international financial markets or any change or development involving a prospective adverse change in national or international political, financial or economic conditions;
- (v) the Company is in breach of any term, condition, undertaking, representation, warranty or agreement of the Underwriting Agreement or the Listing Agreement;
- (vi) a new or materially revised law is introduced in Australia or Germany or any new regulation is made under any law, or a government agency adopts a policy, or there is any official public announcement that such a law or regulation will be introduced or policy adopted (as the case may be);
- (vii) a change in the senior management of the Company or the board of directors of the Company is announced or occurs; or
- (viii) the certificate ("**Certificate**") required to be delivered by the Company under the Underwriting Agreement (certifying the Company's compliance with its obligations under the Underwriting Agreement, that the Company has not defaulted under the Underwriting Agreement, that the representations and warranties given by the Company are true and correct in all respects and not misleading or deceptive and no termination events under the Underwriting Agreement have occurred), is not true or correct;

and in the bona fide opinion of the Underwriters, the occurrence of such event:

- (ix) has, or is likely to have a material adverse effect on the marketing, success or settlement of the Private Placement, willingness of persons to subscribe for New Shares, the market price of Shares or the business, financial position or prospects of the Company and its related bodies corporate; or
 - (x) has given rise to or is likely to give rise to a contravention by an Underwriter or its affiliates incurring a liability under, or contravening, the Constitution, the Corporations Act or the ASX Listing Rules, as applicable;
- (b) the S&P/ASX 200 Index is at any time during the period from 1.30 am (Sydney time) on 4 May 2023 until the close of trading on 11 May 2023, at a level that is 10% or more below the level as at the close of trading on the day before the date of the Underwriting Agreement;
- (c) a condition to the Underwriting Agreement is not satisfied or waived by its applicable deadline;
- (d) the Listing Agreement:
 - (i) has terminated (or an event has occurred which entitles a party to terminate the Listing Agreement) or is rescinded;
 - (ii) has become void, illegal, invalid or unenforceable;
 - (iii) has been varied in any material respect without the prior written consent of the Underwriters; or
 - (iv) a condition precedent to performance of the parties' material obligations under the Listing Agreement has not been satisfied (or waived, if capable of waiver, with such waiver being acceptable to the Underwriters in the case of waiver by the Company) by its due date (or becoming incapable of being satisfied by its due date);
- (e) any event specified in the timetable in the Underwriting Agreement is delayed for more than two business days without the prior written approval of the Underwriters;
- (f) the Certificate is not delivered to the Underwriters in accordance with the Underwriting Agreement;
- (g) there is an event, occurrence or non-occurrence which makes it illegal or commercially impossible for the Underwriters to satisfy a material obligation under the Underwriting Agreement, or to market, promote or settle the Private Placement, or that causes the Underwriters to delay satisfying a material obligation under the Underwriting Agreement;
- (h) the Company withdraws the Private Placement or indicates that it does not intend to or is unable to proceed with the Private Placement;
- (i) there is an application to a government agency for an order, declaration or other remedy, or a government agency commences any investigation or hearing or announces its intention to do so, in each case in connection with the Private Placement or any agreement entered into in respect of the Private Placement;
- (j) there is a material adverse change, or in the Underwriters' reasonable opinion, a development involving a potential material adverse change, in the condition, assets, liabilities, financial or trading position or performance, profits, losses, management or prospects of the Company or any of its related bodies corporate (in so far as the position in relation to related bodies corporate affects the overall position of the Company);
- (k) proceedings are commenced or there is a public announcement of an intention to commence proceedings before a court or tribunal of competent jurisdiction in Australia seeking an injunction or other order in relation to the Private Placement;

- (l) the Company breaches, or defaults under, any provision, undertaking, covenant or ratio of a material financing agreement which has a material adverse effect, or a lender or financier fails to agree a waiver or amendment to a material financing agreement in relation to any breach, default or review event under that material financing agreement and that failure to agree would, in the Underwriters' reasonable opinion, have a material adverse effect;
- (m) the Company commits a material breach of the Corporations Act, its Constitution, the ASX Listing Rules or other applicable laws or has failed to comply with its continuous disclosure obligations under the Corporations Act or ASX Listing Rules;
- (n) the Company alters its capital structure or its Constitution without the prior consent of the Underwriters;
- (o) the Australian Securities and Investments Commission ("**ASIC**") issues, or threatens to issue, proceedings in relation to the Private Placement, or commences any inquiry or investigation in relation to the Private Placement (or gives notice of its intention to do either of those things);
- (p) ASX makes any official statement to any person, or indicates to the Company or the Underwriters that:
 - (i) it will not grant official quotation of the New Shares before 9.30 am (Sydney time) on 15 May 2023 or if such approval is granted, the approval is withdrawn or qualified (other than by customary conditions);
 - (ii) Shares will be suspended from quotation by ASX; or
 - (iii) the Company will be removed from the official list of ASX,
 or any of those things actually occurs;
- (q) a director or officer (as that term is defined in the Corporations Act) of the Company is charged with an indictable offence or disqualified from managing a corporation under Part 2D.6 of the Corporations Act, or certain other actions are taken against a director in relation to any fraudulent conduct or activity (whether or not in connection with the Private Placement) or the Company engages in any fraudulent activity; or
- (r) the Company or any of its related bodies corporate is, or becomes, insolvent.

If the Underwriting Agreement is terminated before the settlement of the New Shares, the Private Placement will not be completed, in which case any applications for New Shares made by investors will be invalidated and investors will have no claim for delivery. Claims with respect to fees already paid and costs incurred by an investor in connection with the Private Placement will be governed solely by the legal relationship between the investor and the financial intermediary to which the investor submitted its purchase order. Investors who engage in short-selling bear the risk of being unable to satisfy their delivery obligations.

Under the Underwriting Agreement, the Company agreed to indemnify the Underwriters from certain liability risks arising in connection with the Private Placement.

2.5.3.4 Listing Agreement

On 4 May 2023, the Company and the Listing Agent entered into a listing agreement ("**Listing Agreement**"). Under the Listing Agreement, subject to certain conditions, the Listing Agent acts for the Company on the Admission to Trading of the New Shares and coordinates the Admission to Trading.

The obligations of the Listing Agent are subject to various conditions, including, among other things, (i) receipt of customary certificates, legal opinions and letters and (ii) the making of necessary filings and the receipt of necessary approvals in connection with the Listing.

The Listing Agreement provides that the Listing Agent may, under certain circumstances, terminate the Listing Agreement.

Under the Listing Agreement, the Company agreed to indemnify the Listing Agent from certain liability risks arising in connection with the Listing.

2.5.4 Placement Capital Increase

The Board of Directors resolved to approve the Placement Capital Increase on 3 May 2023.

The New Shares are expected to be simultaneously admitted to trading on the ASX and the FSE on or around 12 May 2023. Trading of the New Shares is expected to commence on the FSE on or about 15 May 2023 and settlement of the New Shares is expected to occur on 12 May 2023, in each case in accordance with the indicative timetable in section "2.5.1 Private Placement".

2.5.5 Reasons for the Private Placement and the Admission to Trading and Use of Proceeds

The Company has applied for the admission of the Company's New Shares to trading on the regulated market (*Regulierter Markt*) of the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*) and, simultaneously, to the sub-segment of the regulated market with additional post-admission obligations (Prime Standard) to achieve better access to the capital markets in the geographic region, Germany and Europe, in which the Company's main commercial activities are located.

The Company targets gross proceeds of approximately EUR 65.91 million (A\$ 109.14 million) from the Private Placement resulting from the issue of the New Shares. As the offer price has been set in both euro and Australian dollars and investors may subscribe for New Shares using either of those currencies, the Company may receive the proceeds of the Private Placement in a combination of euro and Australian dollars.

The Company intends to use the net proceeds from the Private Placement as follows:

No.	Intended Use of Proceeds	Estimated Amount (in EUR)
1.	Purchase of long-lead items for the construction of a Phase One lithium plant	38 million
2.	Purchase of long-lead items for the construction of a new Phase One geothermal plant	23 million
3.	General working capital and corporate purposes	Remaining amount

2.5.6 Costs of the Admission to Trading and the Private Placement

The costs of the Company related to the Admission to Trading and the Private Placement are expected to amount to approximately EUR 3.3 million.

Investors will not be charged expenses by the Company, the Listing Agent or the Underwriters. Investors will have to bear customary transaction and handling fees charged by their brokers or other financial institutions through which they hold their securities.

2.6 Dilution

There are no subscription rights or other rights of pre-emption/anti-dilution attaching to the Shares of the Company. Based on 143,435,301 Shares outstanding immediately prior to the Private Placement and assuming that none of the existing shareholders prior to the Private Placement subscribes for any New Shares in the Private Placement, each shareholder's percentage ownership in the Company's share capital and voting rights would decrease by 12.98% per existing Share.

The net book value of the shareholders' equity of the Company as of 31 December 2022 is calculated as the difference of "Total assets" less "Non-current liabilities" and "Current liabilities" each as presented as line items in the Consolidated Financial Statements and was EUR 233,161 thousand and therefore EUR 1.63 per Share, calculated on the basis of 143,435,301 issued Shares as of 31 December 2022.

Based on the foregoing, and following the deduction of the commissions, fees and other expenses related to the Private Placement and the Admission to Trading in the amount of approximately EUR 3,341 thousand, the net book value of the shareholders' equity of the Company would have been

EUR 295,732 thousand or EUR 1.79 per Share as of 31 December 2022 (calculated on the basis of the number of 164,835,301 Shares issued after the implementation of the Placement Capital Increase).

This corresponds to an accretion in the net book value of the shareholders' equity of the Company by EUR 0.17 or 10.37% per Share for the existing shareholders, as the adjusted net book value of the shareholders' equity of the Company exceeds the prior net book value of the shareholders' equity by this amount or this percentage. For purchasers of New Shares at the Placement Price (of EUR 3.08 and A\$ 5.10, respectively), this entails a theoretical loss of EUR (1.29) or (41.75)% per Share against the net book value of the shareholders' equity of the Company.

2.7 Interest of parties participating in the Admission to Trading and the Private Placement

The Underwriters act for the Company on the Private Placement and coordinate the structuring and execution of the Private Placement. Upon successful implementation of the Private Placement, the Underwriters will receive a commission, and the size of this commission depends on the results of the Private Placement. As a result of this contractual relationship, the Underwriters have a financial interest in the success of the Private Placement at the best possible terms.

The Listing Agent acts for the Company on the Admission to Trading of the New Shares and coordinates the Admission to Trading. The Listing Agent is acting exclusively for the Company and no one else in connection with the Admission to Trading of the New Shares. The Listing Agent will not regard any other person (whether or not a recipient of this document) as its client in relation to the Listing and will not be responsible to anyone other than the Company for providing the protections afforded to its clients nor for giving advice in relation to the Admission to Trading of the New Shares or any transaction or arrangement referred to herein.

Furthermore, in connection with the Private Placement, the Underwriters and any of their respective affiliates may take up a portion of the New Shares in the Private Placement as a principal position and in that capacity may retain, purchase or sell for its own account such Shares or related investments and may offer or sell such Shares or other investments otherwise than in connection with the Private Placement. In addition, certain of the Underwriters or their respective affiliates may enter into financing arrangements (including swaps, warrants or contracts for differences) with investors in connection with which the Underwriters (or their respective affiliates) may from time to time acquire, hold or dispose of Shares. None of the Underwriters or any of their respective affiliates intend to disclose the extent of any such investment or transactions otherwise than in accordance with any legal or regulatory obligation to do so.

The Listing Agent, the Underwriters or their respective affiliates have, and may from time to time in the future continue to have, business relations with Vulcan Group or may perform services for Vulcan Group in the ordinary course of business for which they have received or may receive customary fees and commissions.

Certain Directors of the Company hold Shares and therefore have a personal interest in the performance of the Company's share price.

None of the aforementioned interests in the Admission to Trading or the Private Placement constitute a conflict of interests or a potential conflict of interests. Consequently, there are no conflicts of interest with respect to the Admission to Trading or the Private Placement.

2.8 Alternative performance measures and other key performance indicators

This Prospectus contains certain references to EBITDA and capital expenditure, which are not defined in IASB IFRS, IFRS or any other generally accepted accounting principles. These measures are alternative performance measures ("**APMs**") as defined in the guidelines issued by the European Securities and Markets Authority ("**ESMA**") on October 5, 2015 on Alternative Performance Measures (the "**ESMA Guidelines**"). These APMs are used by the Company's management alongside other key performance indicators as financial measures to monitor the performance of the Company as well as to provide additional information to investors to measure the operating performance of the Company's business activities, but are not measurements of the Company's performance or liquidity under IASB IFRS, IFRS or any other accepted accounting principles and should not be considered as alternatives to net income (loss), revenue or any other performance measure derived in accordance

with IASB IFRS or IFRS or any other generally accepted accounting principles. The Company believes that the presentation of APMs included in this Prospectus complies with the ESMA Guidelines.

The way in which the Company uses these APMs may vary from the use by other companies in the Company's industry, even where other companies use APMs with the same or similar name. These APMs have limitations as an analytical tool and should not be considered in isolation or as substitutes for analysis of the Company's results as reported under IASB IFRS. They may exclude or include amounts that are included or excluded, as applicable, in the calculation of the most directly comparable IASB IFRS or IFRS measures. Their usefulness is therefore subject to limitations.

These APMs should be considered in conjunction with the Consolidated Financial Statements and the respective notes thereto.

The definitions of the APMs used by the Company, information regarding their usefulness and a reconciliation to their most directly comparable IASB IFRS measures is provided below.

2.8.1 EBITDA

The Company defines EBITDA as earnings before interest, taxes, depreciation and amortization.

The Company discloses EBITDA as a supplemental APM since it neutralises the effects of the financial result along with distortions of operational performance that result from divergent depreciation and amortisation methods and the exercise of measurement discretion. The Company believes EBITDA is a meaningful measure to indicate the Company's earnings and thus to evaluate the performance of the Company's business activities over time.

The following table shows the reconciliation of the Company's revenue from continuing operations to EBITDA for the periods indicated.

	Short financial year ended 31 December 2022 EUR (audited)	2022 EUR (audited)	Financial year ended 30 June 2021 A\$ (audited, unless otherwise indicated)	2020 A\$
Revenue from continuing operations	3,622,000	3,799,000	-	-
Other income	213,000	317,000	510,864 ⁽¹⁾	50,000 ⁽¹⁾
Gain on deconsolidation	-	1,975,000	-	-
Share of loss from equity accounted investments	(249,000)	(495,000)	-	-
Other own work capitalised	3,489,000	3,696,000	-	-
Raw materials and purchased services	(3,119,000)	(2,512,000)	-	-
Administrative expenses	(2,127,000)	(3,790,000)	(888,145)	(320,920)
Compliance and regulatory expenses	(304,000)	(729,000)	(551,639)	(98,906)
Consulting and legal fees	(1,362,000)	(4,099,000)	(1,922,771)	(424,603)
Employee benefit expenses	(8,097,000)	(7,793,000)	(624,829)	(234,551)
Investor relations expenses	(231,000)	(615,000)	(410,338)	(314,510)

Impairment expenses	-	(36,000)	(228,663)	(286,017)
Introducer Fee	-	-	-	(150,000)
Loss on disposal of financial assets	-	(745,000)	-	-
Occupancy costs	(1,265,000)	(498,000)	(55,930)	(18,148)
Share-based payments expense	(711,000)	(3,637,000)	(6,517,484)	(1,690,473)
Other expenses	(1,446,000)	(1,175,000)	(120,877)	(103,406)
Foreign currency loss	(105,000)	285,000	76,042	(7,167)
EBITDA	(11,692,000)⁽²⁾	(16,052,000)⁽²⁾	(10,733,770)⁽²⁾	(3,598,701)⁽²⁾

⁽¹⁾ Excludes finance income of A\$ 120,678 in the financial year ended 30 June 2021 and of A\$ 45,342 in the financial year ended 30 June 2020 which were included in the line item "other income" in the Consolidated Annual Financial Statements 2021 and 2020, respectively. Since the financial year ended 30 June 2022, Vulcan Group presents finance income separately from "other income".

⁽²⁾ Unaudited

2.8.2 Capital expenditure

Capital expenditure includes investment in tangible and intangible assets (see section "6.8.2 Capital expenditure").

The Company believes that capital expenditure is a meaningful financial measure because it provides investors with information about the investments made by Vulcan Group in the business during the period that are expected to improve the Company's performance in the future and the capital costs involved in the development Vulcan Group's business.

The following table shows the components of the Company's capital expenditure for the periods indicated.

	Short financial year ended 31 December 2022 EUR (audited, unless otherwise indicated)	2022 EUR (audited, unless otherwise indicated)	Financial year ended 30 June 2021 A\$ (audited, unless otherwise indicated)	2020 A\$
Software	137,000	168,000	164,136	13,353
Plant and Equipment	2,001,000	28,400,000	662,135	-
Assets under construction	18,166,000	22,314,000	743,037	-
Land and Buildings	-	1,623,000	-	-
Intangible Assets	-	4,148,000	-	-
Exploration & Evaluation	10,400,000	11,273,000	5,670,681	1,195,871
Capital expenditure	30,704,000⁽¹⁾	67,926,000⁽¹⁾	7,239,989⁽¹⁾	1,209,224⁽¹⁾

⁽¹⁾ Unaudited

2.8.3 Other key performance indicators

In addition to the APMs described above, the Company uses revenues and cash (each as included in the Consolidated Financial Statements) and operating expenditure for the internal management of Vulcan Group (see section "6.6 Results of operations" and "6.7 Assets, equity and liabilities").

Operating expenditure includes the ongoing costs for running a business. References to operating expenditure during the historical financial periods under review in this Prospectus include raw materials, external purchased services, administrative expenses, compliance and regulatory expenses, consulting and legal fees, depreciation and amortisation, employee benefits, investor relations, impairment, occupancy, share based payments and other expenses, all as stated in the Company's consolidated statement of profit or loss and other comprehensive income. However, references in this Prospectus to estimated operating expenditure in relation to Phase One of the Zero Carbon Lithium™ Project as set forth in the DFS relate only to project-level expenditure (including primarily reagents, operating supplies, maintenance supplies, water, steam, nitrogen, energy, labour, trucking, services and other costs) and exclude corporate overhead costs.

Moreover, the Company uses non-financial performance indicators in the human resources space ("Building a world-class team") and in the ESG space ("Net zero carbon position"). Under the former, the Company measures and steers the growth of Vulcan Group's workforce (see section "9.3.2 *Grow the business by investing in the expansion of Vulcan Group's team*"). Under the latter, the Company benchmarks its efforts to become the world's first lithium chemicals and renewable energy producer with a net zero carbon footprint (see section "9.8.3 *Zero Carbon and CO2 Footprint*").

2.9 Forward-looking statements

This Prospectus contains certain forward-looking statements. A forward-looking statement is any statement that does not relate to historical facts or events or to facts or events as of the date of this Prospectus. Forward-looking statements can be identified by the use of forward-looking terminology or subjective assessments including "may", "will", "expect", "plan", "intend", "predict", "estimate", "anticipate", "target", "propose" or "forecasts". This applies, in particular, to statements in this Prospectus containing information on future earnings capacity, plans and expectations regarding Vulcan Group's business, growth and profitability, and the general economic and legal conditions and other factors to which Vulcan Group is exposed.

The forward-looking statements in this Prospectus are subject to uncertainties, as they relate to future events, and are based on estimates and assessments made to the best of the knowledge of the Company as of the date of this Prospectus. These forward-looking statements are based on assumptions, uncertainties and other factors, the occurrence or non-occurrence of which could cause the Company's actual results, including the financial condition and profitability of Vulcan Group, to differ materially from or fail to meet the expectations expressed or implied in the forward-looking statements. Accordingly, investors are strongly advised to consider this Prospectus as a whole and particularly ensure that they have read the following sections of this Prospectus: "1 RISK FACTORS", "6 MANAGEMENT'S DISCUSSION AND ANALYSIS OF NET ASSETS, FINANCIAL POSITION AND RESULTS OF OPERATIONS", "8 INDUSTRY OVERVIEW", "9 BUSINESS" and "16 RECENT DEVELOPMENTS AND OUTLOOK". These sections include more detailed descriptions of factors that might have an impact on Vulcan Group's business and the business environment in which Vulcan Group operates.

The forward-looking statements contained in this Prospectus speak only as of the date on which they were made. Investors are advised that neither the Company nor the Listing Agent assume any obligation or intend to, except as required by law, publicly release any updates or revisions to these forward-looking statements to reflect any change in the Company's expectations with regard thereto or any change in events, conditions or circumstances on which any such statement is based or to adjust them in line with future events or developments.

2.10 References regarding mineral resources, ore reserves and production targets

Refer to the Competent Person Report (which is included in this Prospectus and has been released to the market together with this Prospectus) for further details about the mineral resources, ore reserves and production targets (including forecast financial information derived from such production targets) included in this Prospectus.

Refer to section "9.1.3.2 *Definitive Feasibility Study for Phase One* (February 2023)" regarding the DFS for Phase One.

The Company confirms that, in respect of estimates of mineral resources and ore reserves included in this Prospectus:

- it is not aware of any new information or data that materially affects the information included in the Competent Person Report, and that all material assumptions and technical parameters

underpinning the estimates in the Competent Person Report continue to apply and have not materially changed;

- the form and context in which the Competent Person findings are presented in this Prospectus have not been materially modified from the Competent Person Report; and
- all material assumptions underpinning the production targets (and the forecast financial information derived from such production targets) included in this Prospectus continue to apply and have not materially changed.

2.11 Notes concerning currency and financial information

In this Prospectus, the following currency terms are used:

- "Australian dollars" or "A\$" means the lawful currency of Australia;
- "euros" or "EUR" means the means the lawful currency of the EU member states that adopted the single currency; and
- "US dollars" or "US\$" means the lawful currency of the United States of America.

If figures are denominated in a currency other than the Australian dollars, euros or US dollars, express reference is made in the corresponding figure or figures utilising the respective applicable currency abbreviation.

Vulcan Group's Consolidated Annual Financial Statements 2020 and 2021 included in this Prospectus are presented in Australian dollars, which was Vulcan Energy Resources Limited's presentational currency during those financial years. However, Vulcan Group changed its presentational currency to euro with effect from the commencement of the financial year ended 30 June 2022. The Company believes this change provides shareholders with a more accurate reflection of its underlying performance, given the focus of Vulcan Group's activities on the European market, its acquisitions of several German-based operating entities and its planned operations in Europe from which Vulcan expects it will generate the majority of its revenue and costs.

As a result, Vulcan Group's Consolidated Annual Financial Statements 2022 and Consolidated Short Financial Year Financial Statements 2022 included in this Prospectus are presented in euro. In section "6 MANAGEMENT'S DISCUSSION AND ANALYSIS OF NET ASSETS, FINANCIAL POSITION AND RESULTS OF OPERATIONS" of this Prospectus, certain financial information for the financial year ended 30 June 2021 has been presented in both Australian dollars and euros, in order to enhance comparability with the financial information for the financial year ended 30 June 2022 (which was presented in euros). Such financial information presented in euros for the financial year ended 30 June 2021 is based on a translation of the original Australian dollar information using:

- i. in respect of financial information from the Company's consolidated statement of profit or loss and other comprehensive income and its consolidated statement of cash flows, the average daily exchange rate during the period (being A\$ 1/ EUR 0.6260). The average daily exchange rate during the period has been used for the translation of this financial information in order to better reflect the movements in the exchange rate during the entire 12-month period covered by the consolidated statement of profit or loss and other comprehensive income and the consolidated statement of cash flows; and
- ii. in respect of financial information from the Company's consolidated statement of financial position, the exchange rate as of 30 June 2021 (being A\$ 1/ EUR 0.6320). This single exchange rate has been used for the translation of this financial information as the consolidated statement of financial position speaks only as of 30 June 2021.

Save in respect of financial information appearing in or extracted from Vulcan Group's Consolidated Financial Statements, and unless otherwise stated, translations from euros to Australian dollars appearing in this Prospectus have been calculated based on the exchange rate of A\$ 1 / EUR 0.603.

Some figures and percentages in this Prospectus have been rounded according to established commercial standards, whereby aggregate amounts (totals, sub-totals, differences or amounts in relation thereto) are calculated based on the underlying unrounded amounts. As a result, the aggregate amounts may not correspond in all cases to the corresponding rounded amounts contained in the text and tables. Moreover, in the tables, such rounded figures may under certain

circumstances not add up precisely to the total figures which may also be included in the tables. The percentage changes that are stated in the text and the tables have been commercially rounded to a whole number unless stated otherwise. In addition, the financial information included in this Prospectus with respect to the short financial year ended 31 December 2022 and the financial year ended 30 June 2022 (together with the euro translations of the financial information for the financial year ended 30 June 2021) has been rounded to the nearest EUR 1,000. With respect to financial data set out in the Prospectus, a dash ("—") signifies that the relevant figure is not applicable, while a zero ("0") signifies that the relevant figure is applicable but is or has been rounded to zero.

Where financial information contained in tables in this Prospectus is described as "audited", this means that it has been taken from the audited consolidated financial statements of the Company prepared in accordance with Australian Accounting Standards and Interpretations ("**AASI**") issued by the Australian Accounting Standards Board ("**AASB**") and the Corporations Act 2001 (Cth) of Australia ("**Australian Corporations Act**") as of and for the short financial year ended 31 December 2022 (the "**Consolidated Short Financial Year Financial Statements 2022**"), the audited consolidated annual financial statements of the Company prepared in accordance with AASI and the Australian Corporations Act as of and for the financial year ended 30 June 2022 (the "**Consolidated Annual Financial Statements 2022**"), the audited consolidated annual financial statements of the Company prepared in accordance with AASI and the Australian Corporations Act as of and for the financial year ended 30 June 2021 (the "**Consolidated Annual Financial Statements 2021**") and the audited consolidated annual financial statements of the Company prepared in accordance with AASI and the Australian Corporations Act as of and for the financial year ended 30 June 2020 (the "**Consolidated Annual Financial Statements 2020**" and together with the Consolidated Short Financial Year Financial Statements 2022, the Consolidated Annual Financial Statements 2022 and the Consolidated Annual Financial Statements 2021, the "**Consolidated Financial Statements**"). The Consolidated Financial Statements comply with International Financial Reporting Standards ("**IASB IFRS**") as developed and published by the International Accounting Standards Board ("**IASB**"). According to Art. 1 a) of the Commission Decision of 12 December 2008 (2008/961/EC), IASB IFRS are to be regarded as equivalent to the IFRS adopted under Regulation (EC) No 1606/2002 ("**EU IFRS**"), provided that the notes to the audited financial statements contain an explicit and unreserved statement that these financial statements comply with "International Financial Reporting Standards in accordance with IAS 1 Presentation of Financial Statements". Where the financial information in this Prospectus is described as "unaudited", this means that it was not taken from the Consolidated Financial Statements but was taken or derived from the Company's accounting records or internal management reporting systems or is based on calculations of these figures, or recomputed or derived from the abovementioned sources. All information on value increases and decreases (absolute and in percentage terms) and ratios has been calculated by the Company and is unaudited.

In 2022, the Company changed its financial year end from 30 June to 31 December in order to align with the financial year commonly used in Germany (i.e. the calendar year), following the Company's listing on the regulated market of the FSE and in line with the Company's focus on developing its European renewable energy and Zero Carbon Lithium™ business. As a consequence, the short financial year ended 31 December 2022 consists of the six month period from 1 July 2022 to 31 December 2022 and therefore is not fully comparable with the prior and future financial years of the Company, which cover 12-month periods.

2.12 Notes concerning sources of market data and information provided by third parties

This Prospectus contains information sourced from third parties, particularly in the form of sector and market data, calculations and statistics, which are derived from sector reports and studies, commercial publications, and publicly available information.

As part of its DFS for Phase One, the Company commissioned an independent market study from Fastmarkets ("**Fastmarkets**"), an independent cross-commodity price reporting agency (PRA) in the agriculture, forest products, metals and mining, and energy markets, titled "Lithium Market Study – 2022" dated October 2022 (the "**Fastmarkets Analysis**"). The Fastmarkets Analysis is not an expert report within the meaning of Item 1.3 of Annex I of the Commission Delegated Regulation (EU) 2019/980 of March 14, 2019. Neither the Company nor the Listing Agent have verified any of the market data or other information included in the Fastmarkets Analysis, nor have the Company or the Listing Agent asked Fastmarkets to modify or otherwise adjust the Fastmarkets Analysis (except where the Company identified inaccuracies).

The Company has accurately reproduced information sourced from third parties (including Fastmarkets) and, as far as it is aware and able to ascertain from information published by such third parties, no facts have been omitted which would render the reproduced information inaccurate or misleading. Investors should nevertheless treat this information with care. Market studies are frequently based on information and assumptions which are potentially neither exact nor appropriate, and their methodology is forward-looking and speculative by its nature. In addition, some of the sources of market data included in this Prospectus were prepared before or at the early stage of the pandemic spread of the COVID-19 or the Russia-Ukraine Conflict, and have not been updated for the potential effects of this pandemic or the conflict, respectively. The Company is not able to determine whether the third parties who have prepared such sources will revise their estimates and projections due to the potential impact of the COVID-19 pandemic or the Russia-Ukraine Conflict on future market developments. The Prospectus also contains Company estimates related to third-party market data which are based on published market data or figures derived from publicly accessible sources. Investors should take into account that the Company's estimates are based on such third-party market studies. Without affecting the assumption of responsibility for the content of this Prospectus by the Company and the Listing Agent (see section "2.1 Responsibility for the content of this Prospectus"), the Company and the Listing Agent have not verified the figures, market data and other information on which third parties have based their studies.

The following sources were used for the preparation of this Prospectus:

- Canaccord Genuity (Australia) Ltd, Lithium | 2020 recharge – time to call the bottom?, 16 September 2020, <https://canaccordgenuity.bluematrix.com/sellside/EmailDocViewer?encrypt=34d75f67-a205-45db-bd65-e2c1573f9e21&mime=PDF&co=Canaccordgenuity&id=reg.spencer@canaccord.com.au&source=libraryview&htmlToPdf=true> ("**Canaccord 1**")
- Clean Energy Wire, Geothermal energy – Germany's largely untapped renewable heat source, 15 June 2020, <https://www.cleanenergywire.org/factsheets/geothermal-energy-germanys-largely-untapped-renewable-heat-source#:~:text=There%20are%20currently%2037%20deep,Rift%2C%20and%20the%20Molasse%20Basin> ("**Clean Energy Wire**")
- International Energy Agency, By 2030 EVs represent more than 60% of vehicles sold globally, and require an adequate surge in chargers installed in buildings, 1 September 2022, <https://www.iea.org/reports/by-2030-evs-represent-more-than-60-of-vehicles-sold-globally-and-require-an-adequate-surge-in-chargers-installed-in-buildings> ("**IEA**")
- Macquarie Group, Lithium Market Outlook Electrifying demand, 12 April 2021 ("**Macquarie**")
- Minviro Ltd, Prospective life cycle assessment study memo of lithium hydroxide monohydrate production 9 February 2023 ("**Minviro**")
- Reuters, Albemarle calls for high lithium prices to fuel EV industry growth, 24 January 2023, <https://www.reuters.com/markets/commodities/albemarle-expects-lithium-prices-remain-high-fuel-fresh-supply-2023-01-24/#:~:text=Global%20lithium%20demand%20should%20hit,new%20mines%20and%20processing%20plants>, ("**Reuters**")
- S&P Global Market Intelligence, Top electric vehicle markets dominate lithium-ion battery capacity growth, 16 February 2021, <https://www.spglobal.com/marketintelligence/en/news-insights/blog/top-electric-vehicle-markets-dominate-lithium-ion-battery-capacity-growth> ("**S&P Global Market**")
- S&P Global Platts, Europe overtakes China in electric vehicle sales growth in 2020, 20 January 2021, <https://www.spglobal.com/platts/en/market-insights/latest-news/coal/012021-europe-overtakes-china-in-ev-sales-growth-in-2020> ("**S&P Global Platts 1**")

- S&P Global Platts, Producers look to 'green' lithium as automakers, investors apply ESG pressure, 3 December 2020, <https://www.spglobal.com/platts/en/market-insights/blogs/metals/120220-green-lithium-carbon-batteries-mining-brine-autos-esg> ("**S&P Global Platts 2**")
- S&P Global Metals Daily, Volume 11 / Issue 249 / January 13, 2023 ("**S&P Global Daily**")
- European Central Bank, Harmonised index of consumer prices (HICP), December 2022 (https://www.ecb.europa.eu/stats/macroeconomic_and_sectoral/hicp/html/index.en.htm)
- Eurostat, December 2022 – Annual inflation down to 9.2% in the euro area, 18 January 2023 (<https://ec.europa.eu/eurostat/documents/2995521/15725179/2-18012023-AP-EN.pdf/e301db8f-984c-27e2-1245-199a89f37bca#:~:text=The%20euro%20area%20annual%20inflation,%2C%20the%20rate%20was%205.0%25.>)
- Statistisches Bundesamt (Destatis), Daten zur Energiepreisentwicklung, 2022.
- Vulcan Energy Resources Ltd, Zero Carbon Lithium™ Project Pre-Feasibility Study, 15 January 2021, based on lithium mineral resource estimate technical reports for two licence areas contained in the Zero Carbon Lithium™ Project, prepared by Roy Eccles P. Geol. of APEX Geoscience Ltd, effectively dated 24 November 2019 and 17 January 2020. <https://www.investi.com.au/api/announcements/vul/1b0a3722-ead.pdf> ("**PFS**")
- Vulcan Energy Resources Ltd, Zero Carbon Lithium™ Project Definitive Feasibility Study, 8 February 2023 ("**DFS**"). Related ASX announcements can be accessed here <https://www.investi.com.au/api/announcements/vul/b898a749-97b.pdf> and here <https://www.investi.com.au/api/announcements/vul/e617fca6-6d4.pdf>.
- Fastmarkets, Lithium Market Study – 2022, October 2022, prepared for Vulcan Energy Resources Limited ("**Fastmarkets Analysis**")
- Kim Mohler, P.Eng. (GLJ Ltd) and Mark King, Ph.D, P.Geo. (Groundwater Insight Inc.), Independent Expert Report for Vulcan Energy Resources Zero Carbon Lithium™ Project, 21 April 2023, set out in an annex to this Prospectus ("**Competent Person Report**" or "**Independent Expert Report**").

2.13 Documents available for inspection

The documents listed below can be inspected for the duration of the validity of this Prospectus on the Company's website at www.v-er.eu/investor-centre/:

- The Consolidated Short Financial Year Financial Statements 2022 as defined under section "2.11 Notes concerning currency and financial information" (under the caption "Annual Report Site");
- the Consolidated Annual Financial Statements 2022 as defined under section "2.11 Notes concerning currency and financial information" (on the "Announcements" sub-site under the caption "Annual Reports");
- the Consolidated Annual Financial Statements 2021 as defined under section "2.11 Notes concerning currency and financial information" (on the "Announcements" sub-site under the caption "Annual Reports"); and
- the Consolidated Annual Financial Statements 2020 as defined under section "2.11 Notes concerning currency and financial information" (on the "Announcements" sub-site under the caption "Annual Reports").

The Competent Person Report and summary information of the Fastmarkets Analysis, each as defined under section "2.12 Notes concerning sources of market data and information provided by third parties", are included in this Prospectus.

The Company's future financial reports and interim reports will be available at the Company's offices and will be published on the Company's website at www.v-er.eu/investor-centre.

A copy of the Company's constitution is available on the Company's website at <https://v-er.eu/corporate-directory-and-governance/> (under the caption "Constitution").

3. INFORMATION ABOUT THE SHARES

3.1 Voting rights, dividend rights, rights in the event of liquidation

As of the date of this Prospectus, prior to completion of the Private Placement, the Company has 143,435,301 fully paid Shares outstanding. The 143,435,301 Shares comprise the entire issued share capital of the Company, excluding the Performance Shares detailed in section 12.3.2. The Performance Shares are a class of convertible security that is not quoted on ASX, provides no voting rights or dividend rights (unless they are converted into a Share, as described in section 12.3.2), and is not the subject of this Prospectus or the Admission to Trading.

In connection with and for the purpose of the Private Placement, the Company will issue 21,400,000 New Shares pursuant to the Placement Capital Increase to institutional, professional and sophisticated investors, at the Placement Price, to raise gross proceeds of EUR 65.91 million (A\$ 107.10 million), by using the Company's existing placement capacity in accordance with the ASX Listing Rules.

Upon consummation of the Placement Capital Increase, the Company's outstanding ordinary share capital will increase to 164,835,301 Shares.

The New Shares which are the subject of this Prospectus all carry the same rights, including full dividend rights. All New Shares are governed by the Company's constitution (the "**Constitution**"), the Australian Corporations Act, the ASX Listing Rules and Australian general law.

Each Share, including each New Share once issued, carries one vote at the Company's shareholders' meeting. Subject to any rights or restrictions for the time being attached to any class or classes of shares, at a general meeting of the Company's shareholders (each a "**Shareholder**"):

- each shareholder entitled to vote may vote in person or by proxy, attorney or corporate representative;
- on a show of hands, every person present who is a shareholder or a proxy, attorney or corporate representative of a shareholder has one vote;
- on a poll, each shareholder who is present in person or by proxy, attorney or corporate representative has one vote in respect of each Share held by that person, or in respect of which that person is appointed a proxy, attorney or corporate representative (but, in respect of partly paid shares, will have such number of votes as bears the same proportion to the total of such shares registered in the shareholders' name as the amount paid (not credited) bears to the total amounts paid and payable (excluding amounts credited).

See section "*13.3 General meetings of shareholders*" with respect to further detail on general meetings of shareholders.

As the New Shares are all fully paid, they will not be subject to any calls for money by Directors and will therefore not become liable for forfeiture. There are no subscription rights or other rights of pre-emption/anti-dilution attaching to the Shares of the Company (see section "*12.4 General provisions on changes in the share capital*" for additional detail with respect to shareholders' rights to participate in future capital issues).

For further information about the rights attaching to the Company's Shares, see:

- section "*3.5 Transferability of the Shares*" with respect to the transferability of Shares;
- section "*4.1 Dividend rights*" with respect to dividends; and
- section "*12.5 General provisions on changes in share rights*" with respect to the alteration of the rights attaching to Shares.

Full details of the rights attaching to the Company's Shares are set out in the Company's Constitution, a copy of which is available on the Company's website at <https://v-er.eu/corporate-directory-and-governance/>.

3.2 Form and representation of the Shares

All of the Shares have been issued as fully paid ordinary shares. The Shares are not represented by a physical share certificate. The Shares are in registered form.

The Shares are currently quoted on the securities exchange operated by ASX as well as on the FSE. Legal title to the Shares is registered electronically, and transfers of Shares occur electronically pursuant to the settlement facility known as the 'Clearing House Electronic Sub-register System' (CHESS) operated by ASX Settlement in accordance with the settlement operating rules of ASX Settlement.

BNP Paribas Securities Services (Sydney Branch) acts as a local custodian for Clearstream Banking S.A., 42 Avenue JF Kennedy, L-1855 Luxembourg, Luxembourg ("**Clearstream**") in the Australian market, account holding institutions connected to the Clearstream system and, ultimately, investors wishing to trade their Shares on the FSE. BNP Paribas Nominees Pty Ltd, Level 6, 60 Castlereagh Street, Sydney NSW 2000, Australia (the "**Custodian**"), acting for BNP Paribas Securities Services (Sydney Branch), is recorded in the Company's share register as holder of the legal title to Shares transferred to investors on the FSE. As a result, such investors are beneficial owners of Shares so transferred, holding such Shares through their respective account holding institutions, Clearstream and, ultimately, the Custodian.

Due to the dual listing of the Company's Shares on the ASX and the FSE, investors are able to trade the Shares on the ASX and the FSE. Shares traded on the ASX are settled and cleared in A\$ through CHESS operated by ASX Settlement in accordance with the settlement operating rules of ASX Settlement. Shares traded on the FSE are settled and cleared in euro within the Clearstream system.

3.3 Delivery and Settlement

The New Shares are expected to be delivered to investors on 12 May 2023 in accordance with the indicative timetable in section "2.5.1 Private Placement".

3.4 ISIN/WKN/Trading symbol

The securities codes for the Shares are as follows:

International Securities Identification Number (ISIN)	AU0000066086
German Securities Code (WKN)	A2PV3A
Trading symbol	VUL
ASX Code	VUL

3.5 Transferability of the Shares

The Shares are freely transferable, subject to formal requirements, compliance with applicable securities laws, the registration of the transfer not resulting in a contravention of or failure to observe the provisions of a law of Australia and the transfer not being in breach of either the Australian Corporations Act or the ASX Listing Rules.

3.6 Paying agent

The paying agent is Automic Pty Ltd, Level 5, 191 St Georges Terrace, Perth, WA 6000, Australia.

3.7 Designated Sponsor

Joh. Berenberg, Gossler & Co. KG, Neuer Jungfernstieg 20, 20354 Hamburg, Germany, has assumed the function of the designated sponsor (the "**Designated Sponsor**") for the Shares trading on the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*) for a period of at least two years starting 14 February 2022 and is entitled to designate an appropriately admitted third party to perform its functions. Pursuant to the designated sponsor agreement entered into between the Designated Sponsor and the Company, the Designated Sponsor will, among other things, place limited buy and sell orders for Shares in the electronic trading system of the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*) during regular trading hours against customary remuneration. This is intended to achieve greater liquidity in the market for Shares. Among other things, the Designated Sponsor shall be available at all times during trading hours and, upon receipt of a request for a quote, shall promptly supply quotes and enter into transactions on such basis. In addition, the Designated

Sponsor shall provide quotes throughout the auction. The Designated Sponsor receives a customary fee from the Company for its services.

3.8 Taxation

3.8.1 Tax warning

The tax legislation of an investor's country of residence and the tax legislation of Australia, as the Company's country of incorporation, may have an impact on any income received from the Shares.

The following information is a general summary of the Australian income tax, good and service tax ("**GST**") and stamp duty implications for investors who acquire shares under this Prospectus and hold Shares on capital account for Australian income tax purposes. This information has been prepared on the basis that the Company is a resident of Australia under Australian tax law and is not a tax resident of any other jurisdiction under a foreign law or a double taxation treaty. Please refer to section 1.5.3 *Vulcan Group is currently subject to the tax laws and regulations of Australia and Germany. Its tax burden may increase as a consequence of current or future tax assessments or court proceedings in connection with changes in domestic or foreign tax laws and double taxation treaties or changes in the application or interpretation thereof. The Company's tax burden may also increase should it be considered tax resident of Germany or any other jurisdiction.* for further information concerning the Company's tax residency status. This information does not apply to investors that are exempt from Australian income tax or are subject to special tax regimes (such as life insurance companies), investors that hold Shares otherwise than on capital account (for example, as revenue assets or as trading stock), investors that acquired their Shares under an employee share scheme or investors who have opted into any of the elective tax timing methods under the Taxation of Financial Arrangements regime in Division 230 of the Income Tax Assessment Act 1997 (Cth).

The information in this section is based on the tax laws in Australia in force as at the date of this Prospectus. Australian tax laws are complex. This summary is general in nature, is not advice and is not intended to be an authoritative or complete statement of the applicable law. Taxation laws and/or their interpretation may change during an investor's period of ownership of the Shares.

In particular, it should be noted that the Australian Government has proposed significant changes to the tax treatment of individuals with a total superannuation balance of more than A\$3 million, with effect from 1 July 2025. Broadly, if the proposals are enacted into law, earnings (calculated pursuant to a formula) on the part of an individual's TSB over A\$3 million will attract an additional 15% tax. Legislation to enact these changes has not yet been passed into law. Affected Investors should seek professional advice to determine how these proposals may apply to their own circumstances.

Investors should therefore consult their own tax advisors regarding the tax implications of acquiring, holding or transferring the Shares. Only qualified tax advisors are in a position to adequately consider the particular tax situation of individual investors. Taxation is only one of a number of matters investors may need to consider when making a decision about their investments.

3.8.2 Australian Taxation Considerations

3.8.2.1 Nature of Shares held through the Custodian

Under current law and practice, Shares held by an investor through the Custodian should generally be treated as if they are owned by the investor for Australian capital gains tax ("**CGT**") purposes. Similarly, dividends paid on the underlying Shares should also be treated as dividends paid to the investor, as the person who is presently beneficially entitled to those dividends.

Whilst the following discussion analyses the Australian CGT and dividend taxation consequences for investors holding legal title to their Shares, for Australian taxation purposes, the consequences should generally be the same for investors who hold beneficial title to their Shares through the Custodian.

3.8.2.2 Australian resident investors

The following discussion applies to investors that are residents of Australia for Australian income tax purposes, other than temporary residents and Australian residents that hold their Shares in carrying on business through a permanent establishment outside of Australia.

3.8.2.2.1 Dividends on Shares

Dividends paid by the Company on a Share should generally constitute assessable income of the investor.

Dividends may be franked (broadly, where a franking credit is attached to the dividend), unfranked (no franking credit is attached) or partially franked. To the extent that a dividend is unfranked, the investor will generally be assessed at their prevailing marginal rate on the dividend received (with no tax offset).

Investors who are individuals or complying superannuation entities should include the dividend in their assessable income. If the investor satisfies the "qualified person" rules (refer to further comments below), they should also include any franking credit attached to the dividend in their assessable income and should be entitled to a tax offset equal to the franking credit attached to the dividend. The tax offset can be applied to reduce the tax payable on the investor's taxable income. Where the tax offset exceeds the tax payable on the investor's taxable income, the investor should be entitled to a tax refund equal to the excess.

Corporate investors should include the dividend in their assessable income. Subject to satisfying the qualified person rules, they should also include the associated franking credit in their assessable income, and should be entitled to a tax offset equal to the amount of the franking credit attached to the dividend. A corporate investor should be entitled to a credit in its own franking account to the extent of the franking credits attached to the distribution received. Excess franking credits received by corporate investors will not give rise to a refund entitlement, but may be able to be converted into carry forward tax losses.

Investors who are trustees (other than trustees of complying superannuation entities, trusts that are taxed in the same way as corporate investors and certain other trusts) or partnerships (other than corporate limited partnerships that are taxed in the same way as corporate investors) should include the dividend in determining the net income of the trust or partnership. Subject to satisfaction of the "qualified person" rules, such investors should also include any franking credit attached to the dividend in their net income. The relevant beneficiary or partner may be entitled to a tax offset in respect of the franking credit in proportion to the beneficiary's or partner's share of the net income of the trust or partnership (as applicable). The rules relating to the treatment of franked dividends and associated franking credits are complex in the context of distributions received indirectly via a trust or partnership, and it is recommended that investors seek independent advice on the tax consequences arising in these circumstances.

The benefit of franking credits can be denied where an investor is not a "qualified person", in which case the investor will not need to include the amount of the franking credits in their assessable income and will not be entitled to a tax offset.

Broadly, to be a "qualified person", two tests must be satisfied: the holding period rule and, if relevant, the related payment rule. The holding period rule requires an investor to hold the Shares "at risk" for a continuous period of at least 45 days, commencing the day after the investor acquires the Shares and ending on the 45th day after the day Shares become ex-dividend excluding (if the Shares have been disposed of) the day of disposal. The holding period rule is subject to certain exceptions, including where the total franking offsets of an individual in a year of income do not exceed A\$5,000.

Under the related payment rule, a different testing period applies where the investor has made (or is under an obligation to make) a "related payment" in relation to the dividend. In that case, the investor must have held the Shares "at risk" for a period of at least 45 days during the period commencing on the 45th day before, and ending on the 45th day after, the day the Shares become ex-dividend excluding (if the Shares have been disposed of) the day of disposal.

There are also specific integrity rules that prevent taxpayers from obtaining a tax benefit from additional franking credits where dividends are received as a result of "dividend washing" or certain other arrangements.

Investors should seek professional advice to determine how the tax rules relating to dividends and dividend imputation apply to their own circumstances.

3.8.2.2.2 Disposal of Shares

An investor will derive a capital gain on the disposal of Shares where the capital proceeds received on the disposal exceed the CGT cost base of the Shares. Broadly, the CGT cost base of the Shares is the amount paid to acquire the Shares plus any non-deductible incidental costs.

A CGT discount may be applied to the capital gain for individual investors, certain trustee investors and investors that are complying superannuation entities, provided the particular Shares are held for at least 12 months prior to entering into any agreement effecting the disposal and certain other requirements are met. The CGT discount (if available) for individuals and certain trusts is 50% and for complying superannuation entities is 33⅓%. The CGT discount and related rules applying to trusts and their beneficiaries are particularly complex.

Any current year or carry forward capital losses for that investor should (subject to any applicable integrity rules) offset the capital gain first before the CGT discount is applied and the resulting amount included in the investor's net capital gain for the income year. Investors should seek professional advice on how the CGT rules apply to their circumstances.

An investor will incur a capital loss on the disposal of their particular Shares to the extent that the capital proceeds on disposal are less than the CGT reduced cost base of the Shares. The CGT reduced cost base is calculated in a similar way to the CGT cost base, with certain modifications. Capital losses may only be offset against capital gains and cannot be used to offset other types of income.

If an investor derives a net capital gain in an income year, this amount is generally included in the investor's assessable income for the income year. If an investor incurs a net capital loss in an income year, this amount is carried forward and is available to offset against capital gains derived in subsequent income years, subject to corporate investors satisfying certain rules relating to the recoupment of carry forward losses.

3.8.2.3 Foreign resident investors

The following discussion applies to investors that are not residents of Australia for Australian income tax purposes and do not hold their Shares in carrying on business through a permanent establishment in Australia.

3.8.2.3.1 Dividends on Shares

Fully franked dividends paid to foreign resident investors are generally not subject to Australian withholding tax. Dividends that are not fully franked dividends will be subject to withholding tax on the unfranked portion, except to the extent that (for example) the dividend is declared to be "conduit foreign income" (in essence dividends paid out of income and gains that have a foreign source from an Australian perspective which would include dividends received from non-Australian subsidiaries).

To the extent unfranked dividends are not paid out of conduit foreign income, dividend withholding tax will apply at the rate of 30% unless an exemption applies or a lower withholding tax rate applies under a double tax treaty. For example, in the case of residents of Germany, the rate is generally reduced to 15% under the Australia – Germany double tax treaty (this rate may differ in certain circumstances).

Generally, a foreign resident holder of Shares (who is not also a tax resident of Australia and who does not hold Shares as a business asset through a permanent establishment in Australia) with no other Australian source income or gains is not required to file an Australian tax return.

3.8.2.3.2 Disposal of Shares

Foreign resident investors that hold their Shares on capital account for Australian tax purposes should consider the impact of the Australian CGT rules on the disposal of their Shares. Generally, a capital gain or loss made by a foreign resident investor from disposing of their Shares should be disregarded for Australian CGT purposes, subject to the following two exceptions:

- (a) where the Shares are held as part of a trade or business conducted through a permanent establishment in Australia; or
- (b) in circumstances where:

- (i) the investor and its associates hold (or have held for a 12 month period during the last 24 months) an interest of 10% or more in the issued capital of (or certain voting rights or rights to distributions from) the Company; and
- (ii) at the time of the disposal, more than 50% of the value of the Company's assets are attributable to taxable Australian real property (see definition below).

The definitions of the terms 'associates' and 'taxable Australian real property' for Australian tax purposes are complex. It is recommended that foreign resident investors seek their own advice as to how these expressions may apply to their circumstances. Broadly, taxable Australian real property includes real property situated in Australia (including a lease of land, if the land is situated in Australia) or a mining, quarrying or prospecting right (to the extent that the right is not real property), if the minerals, petroleum or quarry materials are situated in Australia.

3.8.2.4 Tax file numbers

If an investor does not validly quote its TFN, ABN or details of a relevant exemption, Australian tax withholding (known as TFN withholding) may be required to be deducted from distributions and/or dividends at the top individual marginal rate plus applicable levies (currently, 47%). Australian tax resident investors may be able to claim a tax credit in respect of any such amounts withheld in their income tax returns.

Investors who are not tax resident in Australia should generally be entitled to an exemption from the TFN withholding rules. This means that mandatory TFN withholding may not be required with respect to unfranked dividends or distributions paid to such investors, irrespective of whether those investors have quoted their TFN or (where applicable) ABN. Non-resident investors should obtain specialist tax advice with respect to the application of the TFN withholding rules to them.

3.8.2.5 Goods and Services Tax ('GST')

No Australian GST should be payable by investors in respect of their acquisition of the Shares. The extent to which an investor is entitled to recover any GST incurred on costs relating to their acquisition of Shares will depend on the particular circumstances of that investor.

No GST should be payable by investors on receiving dividends distributed by the Company.

3.8.2.6 Stamp duty

No Australian stamp duty should be payable by investors in respect of their acquisition of Shares.

4. DIVIDEND RIGHTS AND DIVIDEND POLICY

4.1 Dividend rights

Subject to and in accordance with the Australian Corporations Act, the ASX Listing Rules, the rights of any holders of preference shares and the rights of the holders of any shares created or raised under any special arrangement as to dividends, the Directors may from time to time decide to pay a dividend to the shareholders entitled to the dividend which shall be payable on all Shares according to the proportion that the amount paid (not credited) is of the total amounts paid and payable (excluding amounts credited) in respect of such Shares.

The Directors may from time to time pay to shareholders any interim dividends they determine. No dividend will carry interest as against the Company. The Directors may set aside out of the profits of the Company any amounts that may determine as reserves, to be applied at the discretion of the Directors, for any purpose for which the profits of the Company may be properly applied.

Subject to the ASX Listing Rules and the Australian Corporations Act, the Company may, by resolution of the Directors, implement a dividend reinvestment plan on such terms and conditions as the Directors think fit and which provides for any dividend which the Directors may declare from time to time payable on Shares which are participating Shares in the dividend reinvestment plan, less any amount which the Company may either pursuant to the Company's Constitution or any law be entitled or obliged to retain, be applied by the Company to the payment of the subscription price of Shares.

4.2 Dividend policy and dividends per Share

No dividend or distribution of profits were paid to the Company's shareholders in the financial years ended 30 June 2020, 2021 or 2022 or 31 December 2022 or in the period between 1 January 2023 and the date of this Prospectus.

The Company anticipates that significant expenditure will be incurred in the evaluation and development of the Company's projects. These activities, together with the possible acquisition of interests in other projects, are expected to dominate at least the first two-year period following the date of this Prospectus. Accordingly, the Company does not expect to declare any dividends during that period.

Any future determination as to the payment of dividends by the Company will be at the discretion of the Directors and will depend on the financial condition of the Company, future capital requirements and general business and other factors considered relevant by the Directors. No assurance in relation to the payment of dividends or franking credits, i.e. credits investors may receive for underlying taxes paid by the Company via the dividend imputation system, attaching to dividends can be given by the Company.

5. CAPITALISATION AND INDEBTEDNESS

The tables below set forth Vulcan Group's capitalisation and net financial indebtedness (i) as of 28 February 2023 taken or derived from the Company's internal accounting records or reporting systems prior to the implementation of the Private Placement, (ii) the adjustment for the Private Placement, and (iii) total number of (i) as adjusted for (ii). The adjustment in (ii) is based on the assumption that the Private Placement had taken place on 28 February 2023 and did not reflect any tax effects.

The following information should be read in conjunction with section "6 MANAGEMENT'S DISCUSSION AND ANALYSIS OF NET ASSETS, FINANCIAL POSITION AND RESULTS OF OPERATIONS" and the Consolidated Financial Statements, including the notes thereto, contained in the "Financial Information" section of this Prospectus and additional financial information contained elsewhere in this Prospectus.

5.1 Statement of capitalisation

	(i) As of 28 February 2023 in EUR thousand (unaudited)	(ii) Adjustment for the Private Placement in EUR thousand (unaudited) ⁽¹⁾	(iii) Total in EUR thousand (unaudited)
Total current debt (including current portion of non-current debt)⁽²⁾	12,224	-	12,224
thereof guaranteed.....	-	-	-
thereof secured.....	-	-	-
thereof unguaranteed/unsecured.....	12,224	-	12,224
Total non-current debt (excluding current portion of non-current debt)⁽³⁾ ..	6,758	-	6,758
thereof guaranteed.....	-	-	-
thereof secured.....	-	-	-
thereof unguaranteed/unsecured.....	6,758	-	6,758
Shareholders' equity⁽⁴⁾	233,455	62,571	296,026
Share capital ⁽⁵⁾	259,158	62,571	321,729
Legal reserve ⁽⁶⁾	16,169	-	16,169
Other reserves ⁽⁷⁾	(41,872)	-	(41,872)
Total⁽⁸⁾	252,437	62,571	315,008

(1) Reflects an increase in the Company's share capital by EUR 62,571 thousand as a result of the Placement Capital Increase.

(2) This item corresponds to total current liabilities which consist of trade and other payables, deferred consideration payments, lease liabilities, loans and borrowings, provisions, deferred income and income tax liabilities.

(3) This item corresponds to total non-current liabilities which consist of lease liabilities, loans and borrowings, provisions, deferred income and deferred tax liabilities.

(4) This item corresponds to the total of contributed equity, reserves and accumulated losses.

(5) This item corresponds to contributed equity.

(6) This item corresponds to reserves.

(7) This item corresponds to accumulated losses as presented in the Company's Consolidated Short Financial Year Financial Statements 2022 as of 31 December 2022 disregarding any profit or loss or other comprehensive income for the period since 31 December 2022.

(8) This item comprises the total of the total current debt, total non-current debt and shareholders' equity.

5.2 Statement of indebtedness

	(i) As of 28 February 2023 in EUR thousand (unaudited)	(ii) Adjustment for the Private Placement in EUR thousand (unaudited) ⁽¹⁾	(iii) Total in EUR thousand (unaudited)
A. Cash ⁽²⁾	118,286	62,571	180,857
B. Cash equivalents ⁽³⁾	-	-	-
C. Other current financial assets ⁽⁴⁾	10,708	-	10,708
D. Liquidity (A + B + C)	128,994	62,571	191,565
E. Current financial debt (including debt instruments, but excluding current portion of non-current financial debt) ⁽⁵⁾	11,261	-	11,261
F. Current portion of non-current financial debt ⁽⁶⁾	963	-	963
G. Current financial indebtedness (E + F)	12,224	-	12,224
H. Net current financial indebtedness (G – D)	(116,770)	(62,571)	(179,340)
I. Non-current financial debt (excluding current portion of debt instruments) ⁽⁷⁾	6,758	-	6,758
J. Debt instruments ⁽⁸⁾	-	-	-
K. Non-current trade and other payables ⁽⁹⁾ ...	-	-	-
L. Non-current financial indebtedness (I + J + K)	6,758	-	6,758
M. Total financial indebtedness (H + L) ..	(110,012)	(62,571)	(172,582)

(1) Reflects an increase in the Company's cash by EUR 62,571 thousand and a decrease of the Company's net current financial indebtedness as a result of the Placement Capital Increase.

(2) This item corresponds to total cash.

(3) This item corresponds to cash equivalents.

(4) This item corresponds to current trade and other receivables.

(5) This item corresponds to current liabilities (excluding current portion of non-current liabilities) including trade and other payables, deferred consideration payments, provisions, deferred income and income tax liabilities.

(6) This item corresponds to current loans and borrowings, and lease liabilities.

(7) This item corresponds to non-current loans liabilities including loans and borrowings, lease liabilities, provisions, and deferred tax liabilities.

(8) This item corresponds to bonds.

(9) This item corresponds to non-current trade and other payables.

5.3 Lease liabilities

As of 28 February 2023, the financial debt as presented in the statement of indebtedness includes lease liabilities of EUR 4,456 thousand, of which EUR 963 thousand are current and EUR 3,493 thousand are non-current.

5.4 Indirect and contingent indebtedness

The Company's indirect and contingent indebtedness as of 28 February 2023 amounted to nil.

5.5 Statement concerning working capital

In the Company's opinion, the working capital of Vulcan Group is sufficient to meet Vulcan Group's present requirements over at least the next twelve months following the date of this Prospectus.

The proceeds from the Private Placement have not been included in the Company's calculation of its working capital.

6. MANAGEMENT'S DISCUSSION AND ANALYSIS OF NET ASSETS, FINANCIAL POSITION AND RESULTS OF OPERATIONS

The financial information contained in the following section is taken or derived from the Consolidated Financial Statements or is taken or derived from the Company's accounting records or internal management reporting systems. The Consolidated Financial Statements have been prepared in accordance with AASB issued by the AASB and the Australian Corporations Act. The Consolidated Financial Statements comply with IASB IFRS as developed and published by the IASB. The Consolidated Financial Statements were audited by RSM, who issued unqualified independent auditor's reports thereon. According to Art. 1 a) of the Commission Decision of 12 December 2008 (2008/961/EC), IASB IFRS are to be regarded as equivalent to the IFRS adopted under Regulation (EC) No 1606/2002 ("EU IFRS"), provided that the notes to the audited financial statements contain an explicit and unreserved statement that these financial statements comply with "International Financial Reporting Standards in accordance with IAS 1 Presentation of Financial Statements". The Consolidated Financial Statements are reproduced in this Prospectus beginning on page F-1. For purposes of this section 6, the "periods under review" includes the financial years ended 30 June 2020, 30 June 2021 and 30 June 2022 and the short financial year ended 31 December 2022.

Investors should read the following discussion and analysis of financial condition and results of operations in conjunction with the Consolidated Financial Statements as well as the notes to those Consolidated Financial Statements. Some of the statements contained below include forward-looking statements. Because such statements involve inherent uncertainties, actual results may differ materially from the results expressed in or implied by such forward-looking statements. Investors can find a discussion of such uncertainties elsewhere in this Prospectus including, in section "2.9 Forward-looking statements" and section "1 RISK FACTORS".

6.1 Overview

Vulcan Group is an Australian headquartered lithium battery chemicals and renewable energy group with a clear goal to become the world's first lithium chemicals and renewable energy producer with a net zero carbon footprint. With its Zero Carbon Lithium™ Project, Vulcan Group intends to combine the operations of extracting lithium-rich geothermal brines in the Upper Rhine Valley of Germany, of upgrading lithium through electrolysis to a high purity LHM (Vulcan Group's lithium business), and of producing geothermal energy (Vulcan Group's renewable energy business). Vulcan Group's long-term target is to produce enough LHM for 1 million BEVs per annum while contributing a reduction of 1 million tonnes of CO₂ emissions per annum, and to produce renewable heat for more than 1 million people by 2030. Vulcan Group's Zero Carbon Lithium™ Project intends to produce a battery-quality lithium chemical product from its combined geothermal renewable energy and lithium resource located in the Upper Rhine Valley, which is estimated to be Europe's largest lithium resource (based on lithium-focused peers in Europe with comparable project size at a comparable stage of development and published resource information), as estimated and reported in accordance with the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("**JORC Code**") (source: Vulcan Energy Resources Ltd, Vulcan Zero Carbon Lithium™ Project Phase One DFS Results and Resources-Reserves Update, ASX Release, 13 February 2023; see section "2.10 References regarding mineral resources, ore reserves and production targets" and the Competent Person Report for information about the Company's mineral resources, ore reserves and production targets (including forecast financial information based on production targets) included in this Prospectus). Vulcan Group aims to supply the BEV market in Europe, which is among the fastest growing in the world, and is currently reliant on imports of lithium chemicals given the lack of domestic supply. The Zero Carbon Lithium™ Project has also been designed from its inception to help decarbonise the German electrical and local heating grids and lithium supply chain simultaneously and has the lowest planned carbon footprint in the lithium industry compared to any previously published life cycle assessment results (source: Fastmarkets Analysis). An essential part of the Zero Carbon Lithium™ Project involves the use of thermal water as the principal heat source to drive the lithium extraction, which means that lithium is expected to be extracted from the brine with a net zero carbon footprint without polluting the environment with waste material or toxic substances prior to the brines being re-injected in a closed loop, circular system.

In order to advance its lithium and geothermal exploration activities as well as its renewable energy business, Vulcan Group has undertaken several strategic acquisitions in Germany within the last two years. In particular, Vulcan Group acquired two geothermal engineering companies in July 2021, which has brought significant surface and sub-surface geothermal operating expertise into Vulcan Group, and in December 2021, Vulcan Group acquired Pfalzwerke geofuture GmbH (renamed Natürlich Insheim GmbH), a company that owns and operates a geothermal renewable energy plant

and has a geothermal exploitation licence for the property of the Insheim Plant. Moreover, in November 2021, the Company acquired two electric drill rigs as part of Vulcan Group's Zero Carbon Lithium™ Project which can drill to the target depth required for deep geothermal energy wells in the Upper Rhine Valley of Germany. Most recently, the Company acquired Comeback Personaldienstleistungen GmbH ("**Comeback**") through Vulcan Energie, the Company's direct subsidiary in Germany, to insource drilling personnel capabilities.

In the six-month short financial year ended 31 December 2022 and the financial year ended 30 June 2022, the Company had revenue from continuing operations of EUR 3,622,000 and EUR 3,799,000, respectively. As at 31 December 2022 and 30 June 2022, the Company had net assets of EUR 233,161,000 and EUR 247,323,000, respectively.

Vulcan Group holds 16 exploration licences in the Upper Rhine Valley of Germany for areas within the German states of Baden-Württemberg, Rheinland-Pfalz and Hessen, as well as a geothermal exploitation licence at the Insheim geothermal plant bringing the total licence area to over 1,583 km². In addition, Vulcan Group has applied for an exploration licence in the French region "Les Cigognes", covering an area of 155 km² (15,500 hectares) east of the city of Haguenau. Vulcan Group is currently at the exploration and development stage and is targeting commencement of commercial production at year-end 2025, capitalising on its proprietary method for the manufacture of battery-grade LHM with a net zero carbon footprint.

Vulcan Group has also entered into an agreement with GET to develop the northern half of the Rift licence to the west of its Insheim Licence, in return for a production royalty, which is intended to further complement production from the Insheim area.

In addition to its consolidated subsidiaries, Vulcan Group also holds a minority interest in Kuniko, an ASX-listed company focused on developing hard-rock battery metals projects in Scandinavia with a planned net zero carbon footprint that was spun off from Vulcan Group in August 2021.

6.2 Key factors affecting Vulcan Group's results of operations

Vulcan Group's results of operations have been, and will continue to be, affected by many factors, some of which are beyond Vulcan Group's control.

Historically, Vulcan Group's negative operating result has been driven by Vulcan Group's expenses (in particular, share-based payments, consulting and legal fees and administrative expenses) in the absence of any material revenue, as Vulcan Group has not yet commenced production (save for production of renewable power at the Insheim Plant, as discussed below). Vulcan Group has also incurred significant capitalised expenses connected with developing the technology and extraction processes that underpin Vulcan Group's Zero Carbon Lithium™ Project, identifying suitable locations for lithium extraction activity and obtaining the necessary exploration licences, conducting exploration and development activities, undertaking feasibility studies, undertaking pilot testing works, building optimisation plants, engaging in acquisitions of companies related to Vulcan Group's strategy and other preliminary work. These expenses, combined with construction costs as Vulcan Group constructs the facilities and infrastructure necessary for the implementation of Vulcan Group's Zero Carbon Lithium™ Project, will continue to be a significant component of Vulcan Group's business through the commencement of commercial production of geothermal renewable energy and LHM in Phase One, targeted to occur at year-end 2025, and through the commencement of Phase Two, targeted to occur in 2026/27. In addition to this, the expected debt component of Vulcan Group's project financing will require periodic interest payments to be made for the term of the debt. These interest payments may have a material negative impact on the Company's operating result and generate additional losses before taxation prior to the entry into commercial production.

Vulcan Group acquired the Insheim Plant in December 2021 and commenced earning revenues and incurring expenses in connection with the operation of the Insheim Plant's existing renewable power business in the financial year ended 30 June 2022. During construction of the remaining facilities and infrastructure required for Vulcan Group's Zero Carbon Lithium™ Project, and after the commencement of commercial production, there are several key items that the Company expects will impact its results from operations on a consolidated basis. These items are described below.

6.2.1 The demand for and price at which Vulcan Group will be able to sell its LHM product

The Company estimates that, once commercial production of LHM has commenced, sales of its LHM product will account for a substantial majority of its revenues. Therefore, once commercial

production has commenced, the sales price Vulcan Group is able to receive from customers for its LHM product is expected to be the most significant factor affecting Vulcan Group's results of operations.

Vulcan Group has, to date, entered into five binding lithium offtake agreements in respect of its future LHM production:

- (i) an agreement with Umicore N.V. for the sale of between 28,000 and 42,000 metric tonnes of battery-grade LHM over an initial five-year term with start of commercial delivery initially scheduled for 2025 (but postponed to 2026)
- (ii) an agreement with Renault Group for the sale of between 29,000 and 49,000 metric tonnes of battery-grade LHM over a six-year supply term, with the start of commercial delivery initially scheduled for 2026 (but postponed to 2027);
- (iii) an agreement with Stellantis N.V. (as amended) for the sale of between 222,000 metric tonnes and 272,000 metric tonnes of battery-grade LHM over a ten-year supply term, with the start of commercial delivery initially scheduled for 2026 (but postponed to 2027);
- (iv) an agreement with Volkswagen AG for the sale of between 34,000 metric tonnes and 42,000 metric tonnes of battery-grade LHM over an initial five-year term, with the start of commercial delivery initially scheduled for 2026 (but postponed to 2027);
- (v) an agreement with LG Energy Solutions ("**LG Energy**") for the sale of between 41,000 metric tonnes and 50,000 metric tonnes of battery grade LHM over an initial five-year term with the start of commercial delivery initially scheduled for 2025 (but postponed to 2026).

Each of the agreements may be extended by agreement between the parties after their respective initial terms. Together, the volumes of LHM to be delivered under these agreements correspond to the entire expected quantity of the first five years of production from Vulcan Group's Zero Carbon Lithium™ Project.

Vulcan Group is currently in discussions with other potential offtake partners with respect to further LHM production from the Zero Carbon Lithium™ Project in future phases. Overall, it is the Company's goal to have most volumes of battery-grade LHM produced in Vulcan Group's Zero Carbon Lithium™ Project committed under lithium offtake agreements with reputable counterparties.

The pricing under each of Vulcan Group's existing lithium offtake agreements will be set monthly, quarterly, or on a six-month basis, and will be based on market prices for lithium, as calculated by reference to market recognised price reporting agencies' contract-based indices. Therefore, movements in the market price of LHM are expected to have a substantial effect on Vulcan Group's results from period to period. With a number of embedded costs (such as maintenance, power and consumables) being necessary for the operation of Vulcan Group's facilities, any sustained increase or decrease in the market price of lithium would likely have a direct impact on Vulcan Group's profits (positively or negatively, respectively). However, as Vulcan Group intends to sell substantially all of its LHM pursuant to lithium offtake agreements and the pricing under such lithium offtake agreements will be based on a mix of fixed price and indexation based on market prices calculated by reference to certain market indices, Vulcan Group does not expect to be exposed to the day-to-day spot market and believes that its pricing will be generally less volatile than the spot market. Additionally, Vulcan Group has included price floors and ceilings but also fixed prices in relation to part of the secured volume with offtakers, with the aim of bringing more stability to revenues.

The Company believes that, once operational, the Zero Carbon Lithium™ Project (which is based on a thirty year project, asset and infrastructure life) will incur relatively low estimated operating costs compared to other methods of processing LHM (such as hard rock mining), with benefits including a low cost feedstock of brine from Vulcan Group's geothermal plans serving both lithium extraction and energy production in the form of renewable electricity and heat. The Company believes this will enable it to preserve more of the upside from any increases in the price of LHM to enhance margins.

The following table sets forth the average quarterly market price for LHM from 2020 to 2022, based on the Asia contract price CIF (cost, insurance and freight) ("**CIF**"), using daily spot price data from Fastmarkets' online indices platform.

Lithium hydroxide monohydrate LiOH.H₂O 56.5% LiOH min, battery grade, contract price cif China, Japan & Korea, \$/kg (Fastmarkets' online indices platform)

Q1 2020	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023
10.5	10.25	10.25	10.25	10.75	12.92	15.17	27.42	48.09	70.83	73.17	79.92	74.83

Lithium prices have generally experienced a strong upward trend in recent years, beginning with the 2015-2018 period when there was a sharp tightening in the availability of lithium in all product forms relative to demand levels, and generally continuing from 2019 to 2022 on the basis of strong demand figures for electric vehicles, expectations on future supply tightness and perceived future supply shortages (source: Fastmarkets Analysis, see section "8. *INDUSTRY OVERVIEW*"). Nevertheless, lithium prices have softened during the first quarter of 2023, with the average monthly market price for LHM peaking at \$81,000 per tonne in January 2023, declining to \$67,000 per tonne during the last week of March 2023 and reaching \$45,000 per tonne by the last week of April 2023 based on the Asia contract price CIF, using contract price data from Fastmarkets' online indices platform. This softening has been driven to a large extent by price declines in China as a result of lower electric vehicle demand during the period and existing lithium inventories, and has contributed to a downward pressure on lithium prices globally at the start of 2023 (source: S&P Global Daily).

The demand for, and prices of, LHM are influenced by various factors, including the state of the global economy, the stability of international trade, global and regional capacity and supply, government policies, regulatory developments to promote electric vehicles, consumer preferences, currency exchange fluctuations, other commodity prices and developments in the industrial and commercial uses of LHM and other alternative commodities. In particular, Vulcan Group anticipates that the LHM it produces will be used as a component of lithium-ion batteries, especially for use in electric vehicles. As Vulcan Group's current operations are mainly based in the Upper Rhine Valley in Germany, Vulcan Group believes its sales will be primarily to European offtake customers (although Vulcan Group may also sell to customers outside of Europe) and, therefore, Vulcan Group's results are expected to be affected particularly by European demand for lithium products.

Vulcan Group expects that demand will be supported by increasing regulation of vehicle carbon emissions and government support and incentives for BEVs. Vulcan Group believes that Europe will represent a significant source of demand for BEVs in the coming years, and expects that demand for lithium products, particularly LHM, will increase in Europe in line with growth in BEV production and sales and changes in manufacturing plans. Fastmarkets is forecasting a significant increase in European BEV battery manufacturing facilities from 142 in 2022 to 1,236 in 2030 (source: Fastmarkets Analysis, see section "8. *INDUSTRY OVERVIEW*"). At the end of 2021, the number of electric cars on the road globally exceeded 16.5 million. The global electric car stock is forecast to expand to almost 350 million vehicles by 2030 (source: IEA). Correspondingly, the lithium-ion battery is expected to be the fastest growing rechargeable battery technology due to increasingly strong penetration rates in the BEV market and a fall in manufacturing costs (source: Fastmarkets Analysis, see section "8. *INDUSTRY OVERVIEW*"). The global annual consumption of lithium is expected to increase from 278,000 tonnes in 2020 to 2.8 million tonnes in 2030, which would represent a tenfold increase in ten years (source: Fastmarkets Analysis, see section "8. *INDUSTRY OVERVIEW*"). Europe is the fastest growing lithium market in the world based on electric vehicle sales and lithium-ion battery production growth. This would imply that by 2030, the European lithium chemical market will represent approximately 900,000 tonnes per year of lithium chemicals, and potentially up to 1.3 million tonnes, based on planned battery production capacity, more than three times the size of the global market today, while on the supply side there is currently no material European domestic lithium chemical production suitable for BEV battery production (source: Company management estimate, based on Canaccord 1).

Nevertheless, as BEV uptake is heavily reliant on government regulations and incentives (such as subsidies), demand for BEVs (and, in turn, lithium products for BEV batteries) will be affected by any changes in government policy affecting these regulations and incentives. For example, the lower BEV output in China during the first quarter of 2023 that has negatively affected spot prices for lithium hydroxide in China recently (as discussed above) has been attributed largely to the termination of certain BEV buyer subsidies in China from the start of 2023. Forecasts for growth in BEV uptake are subject to a degree of uncertainty, and the level of actual BEV uptake will have a strong correlation with demand for lithium products and the price at which it is sold.

Vulcan Group believes that its lithium resource in the Upper Rhine Valley and its extraction and processing expertise potentially position the Company to be able to manufacture a product with low

impurities to meet stringent demands of major battery materials manufacturers. OEMs have announced plans to introduce longer-range BEV models using higher energy density batteries and are increasingly doing so by moving to high nickel content cathode materials (source: Fastmarkets Analysis, see section "8. *INDUSTRY OVERVIEW*"). The energy density (or specific energy, energy per mass) of LHM exceeds that of lithium carbonate. This shift is therefore expected to increasingly require battery-grade LHM in the production of cathode materials. As a result, battery-grade LHM is expected to be the fastest growing product type in terms of annual consumption, respectively (source: Canaccord 1).

Additionally, Vulcan Group expects that in the future its sales prices may benefit from Vulcan Group's Zero Carbon Lithium™ business objective of producing lithium with a net zero carbon footprint, with a focus on the use of naturally occurring, renewable geothermal energy in its lithium extraction process, no use of fossil fuels, relatively low water requirements and a small land footprint. This is a significant differentiator from other current methods of lithium extraction and processing, such as hard-rock mining and evaporation ponds. Additionally, European companies currently import all of their required battery-grade lithium chemicals and, if local supply is not developed in Europe, European buyers are expected to continue to have to import their lithium chemical requirements, primarily from Asia (with the associated carbon impact and cost). The availability of lithium chemicals with a climate neutral footprint produced in Europe may therefore represent a significant opportunity for European companies to de-risk their supply chain and lower their carbon footprint, which is increasingly important to companies both from a social and environmental responsibility perspective and from a regulatory perspective. For example, the EU is currently in the process of adopting a new battery regulation (Proposal for a Regulation of the European Parliament and the Council concerning batteries and waste batteries, repealing Directive 2006/66/EC and amending Regulation (EU) No 2019/1020) which, if adopted in its current form, would require batteries to meet certain mandatory green and social requirements before entering the EU market and require companies to disclose the carbon footprint of each battery from 2024 (see section "11.1.1 *New Battery Regulation Proposal*"). The EU Council and European Parliament have reached provisional agreement on the new battery regulation, but the initiative remains subject to final approval and implementing legislation. Additionally, the EU has recently adopted a new carbon border adjustment mechanism ("**CBAM**") that will require EU companies importing certain goods to buy carbon certificates equivalent to the carbon price that would have been paid if the goods had been produced under the EU's carbon pricing rules. Imports covered by the CBAM regime would include power and industrial sector goods such as those involved in the manufacturing of cement, steel, chemicals and fertilisers, as well as electricity and hydrogen, and it is thought that chemicals such as LHM could be covered by the regime. This regime will be introduced through a transitional period commencing in 2023 with full implementation by 2026 (see section "11.1.2 *Carbon Border Adjustment Mechanism*"). The Company believes that the CBAM regime may provide a significant incentive for European companies to source sustainably produced lithium chemicals from within Europe and may have a positive effect on the price Vulcan Group is able to achieve for its lithium product in future sales contracts. Additionally, Zero Carbon Lithium™ is a brand that Vulcan Group has registered as its trademark. Vulcan Group will be able to licence the trademark it owns to customers, allowing them to show electric vehicle consumers that they are working on improving their carbon footprint by working with suppliers offering greener and more sustainable products.

6.2.2 The market prices for, and volumes of, electricity and heat produced by Vulcan Group's renewable energy business

In addition to its lithium business, Vulcan Group plans to be a net producer of renewable energy, intending to earn revenues from the sale of electricity and heat from its binary cycle geothermal plants in Germany. Vulcan Group currently intends to:

- sell the electricity produced by the geothermal plants to the grid at the feed-in tariff or higher market prices; and
- utilise a portion of the heat produced by the geothermal plants for its lithium extraction operations, with the remainder sold directly to third-party customers, which Vulcan Group expects will primarily consist of local municipalities and businesses.

Vulcan Group's results of operations could therefore be affected by the feed-in tariff for electricity sold to the grid, as well as the negotiated price for heat.

Electricity sold to the grid is expected to have a fixed feed-in tariff of EUR cent 25.2 / KWh, which is guaranteed for 20 years commencing from the commissioning date of a geothermal plant (in the

case of the Insheim Plant: 2012), based on the subsidised remuneration regime under the German Renewable Energy Act (*Erneuerbare-Energien-Gesetz*) as described in more detail in section 11.2.3 of this Prospectus. In periods where spot prices are above the feed-in tariff level, as has recently been the case, Vulcan Group can sell the electricity produced to the grid at the higher spot price, in which case the feed-in tariff acts as a "floor price". After this 20-years remuneration period (or the remaining part of this remuneration period if a geothermal plant was already commissioned), its future revenues for the applicable geothermal plant will depend upon the respective market price for renewable energy. While the applicable feed-in tariff may not offer a risk-adequate return to investors in a stand-alone geothermal power plant, Vulcan Group's business model, with its lithium and renewable energy businesses, foresees dual revenue sources of which the lithium business is expected to generate the larger revenue share. Following the acquisition of the Insheim Plant in December 2021, Vulcan Group began earning revenues from the sale of electricity from this plant in the financial year ended 30 June 2022, with revenues in the six months to 30 June 2022 amounting to EUR 2,977,000 and revenues in the six-month short financial year ended 31 December 2022 amounting to EUR 3,128,000. The revenues earned from this business in the financial year ended 31 December 2021 (i.e. prior to the acquisition by Vulcan Group) were EUR 5,756,000.

Heat sold to third-party customers will be the subject of contractual negotiation with such customers, which Vulcan Group expects will primarily comprise local municipalities and businesses in the Upper Rhine Valley. In April 2022, the Company entered into a binding heat offtake agreement with MVV Energie AG ("**MVV Energie**") to sell to MVV Energie between 240,000 MWh and 350,000 MWh of renewable heat per year to supply households in Mannheim, Germany. Delivery is targeted to commence by 2025 with an initial term of 20 years. Vulcan Group is currently negotiating heat offtake agreements in a number of additional areas.

In addition, in January 2023, the Company signed a phased project agreement with Stellantis, aimed at developing, building, and operating geothermal renewable energy assets to help decarbonise the energy supply for Stellantis' operations in Rüsselsheim, Germany, by providing renewable heat. Under this agreement, the parties agreed that the first phase of the project will include a pre-feasibility study for the construction of geothermal assets for Stellantis' Rüsselsheim facility, carried out by the Vulcan Group and based on existing data. The following phase, if the first phase is successful, will focus on drilling and more advanced studies and development. Stellantis plans to aim to source funding for 50% of the project development after the first phase.

Vulcan Group expects to earn revenues from electricity and heat produced by additional geothermal plants (including two additional geothermal plants envisioned in Phase One of Vulcan Group's Zero Carbon Lithium™ Project) following their construction and the commencement of commercial production (targeted for late 2025), and Vulcan Group's revenues from its renewable energy business are, therefore, expected to grow in line with the increase in capacity, as discussed further in section "6.2.3 Results of exploration activity, ramp-up of Vulcan Group's development activities and expansion of installed capacity" below. The volume of electricity and heat produced by Vulcan Group may also be affected by factors including brine flow rates, the efficiency and reliability of Vulcan Group's facilities and infrastructure and any required plant shutdowns for maintenance or other reasons.

6.2.3 Results of exploration activity, ramp-up of Vulcan Group's development activities and expansion of installed capacity

As Vulcan Group is currently in the exploration and development phase, Vulcan Group's results in future financial years are expected to be influenced by the results of Vulcan Group's exploration activities, the ramp-up of its development activities and operations and the timing of assets moving to the production phase.

With the DFS completed for Phase One, Vulcan Group is currently progressing a systematic exploration and development programme over its project area in the Upper Rhine Valley and intends to move into the execution and construction phase for Phase One shortly, pending successful completion of the Private Placement and completion of the debt and equity financing process for Phase One in the first quarter of 2024. The success of Vulcan Group's strategy relies upon being able to drill geothermal wells which produce the requisite heat, lithium grades and brine flow rate to economically deliver lithium chloride concentrate, and subsequently battery-quality LHM, in progressively larger quantities.

Vulcan Group is currently developing its Zero Carbon Lithium™ Project in two phases.

- Phase One, from which Vulcan Group is targeting to commence commercial production at year-end 2025, is planned to comprise the development of: (i) two new geothermal plants, which (together with the existing Insheim Plant) are planned to have combined annual production targets of more than 300 gigawatt hours ("**GWh**") of energy and more than 250 GWh of heat; (ii) two LEPs with a targeted annual production capacity of 8,000 and 16,000 metric tonnes, respectively, of LHM; and (iii) one CLP for LHM production, with a targeted annual production capacity of 24,000 metric tonnes of LHM. While the DFS for Phase One envisions that Phase One would include the construction of two geothermal plants and two LEPs (in addition to the CLP), Vulcan Group is currently pursuing a number of value improvements during the ongoing bridging engineering work with Hatch Ltd with the goal of consolidating these into one geothermal plant and one LEP (in addition to the CLP) while targeting the same level of production as envisioned in the DFS.
- For Phase Two, from which Vulcan Group is targeting to commence commercial production in 2026/27, the Company assumes it will be targeting to achieve similar production levels as, and in addition to those of, Phase One following an expansion of Vulcan Group's plant capacity. Vulcan Group has, however, not yet completed a definitive feasibility study with respect to Phase Two and accordingly there is no certainty or assurance as to whether the targeted production levels for Phase Two will be realised at this stage. Further evaluation work and appropriate studies are required to establish whether this target will be met.

Vulcan Group intends to plan further phases across Vulcan Group's licence area, as Vulcan Group plans to grow production in a staged, modular fashion.

In addition to the lithium business, the geothermal plants comprised in the project will also produce electricity and/or heat depending on location, with Vulcan Group's current intention being to sell the electricity to the grid and to sell all heat not used for Vulcan Group's own operations to third parties, as discussed in section "6.2.2 *The market prices for, and volumes of, electricity and heat produced by Vulcan Group's renewable energy business*" above.

Vulcan Group's results of operations will be significantly affected by the timing of the construction of its facilities and of its development assets reaching the production phase, especially in the near term, and will be affected by any construction or other delays. For example, Vulcan Group has experienced some delays on construction of its LEOP due to supply chain disruptions resulting in longer delivery times, which the Company believes have had their roots mainly in the COVID-19 pandemic and Russia-Ukraine Conflict and their respective broader repercussions. This has led to Vulcan Group's target for the commencement of commercial production from Phase One moving from 2024 to late 2025 and from Phase Two moving from 2025 to 2026/2027, which will delay the originally scheduled dates of commencement of commercial delivery under each of Vulcan Group's lithium offtake agreements.

Vulcan Group's revenues may increase substantially in future years as the new plants envisioned in the Zero Carbon Lithium™ Project in the Upper Rhine Valley commence commercial production. Vulcan Group is also continually exploring other acquisition and development opportunities in various locations related to Vulcan Group's core expertise of converting geothermal brine to renewable energy and lithium, and the consummation of any further acquisitions or other expansion opportunities could also increase Vulcan Group's installed capacity and revenue, as discussed in section "6.2.5 *The impact of acquisitions*") below. For example, in July 2022, Vulcan Group entered into a binding collaboration agreement with EGP to develop exploration activities in Italy, including a joint scoping study to explore the area covered by an exploration licence in the Cesano geothermal field located within the Monti Sabatini volcanic region in Italy (which collaboration Vulcan Group intends, however, to discontinue in the short term), and, in November 2022, it started initiatives to expand its exploration licence areas into the Alsace Region of France, which is a natural extension of the Upper Rhine Valley geothermal-lithium brine field.

6.2.4 Construction costs and increasing operating expenditure

Historically, the Company's costs have been primarily administrative and other expenses not directly related to development activity (including non-capitalised staff costs, consulting and legal fees in connection with M&A and other activity, share-based payment expenses, office costs, foreign currency losses and gains and other expenses) as well as capitalised costs relating to obtaining approvals and technical studies in connection with the Zero Carbon Lithium™ Project (including 2D and 3D seismic surveys data acquisition), consultant costs and costs related to piloting Vulcan Group's extraction technology. The financial year ended 30 June 2022 was a transformational year

for the Company with the acquisition of the Insheim Plant and of two electric drill rigs and the commencement of construction of the LEOP which will be used to demonstrate Vulcan Group's DLS process and to train the operations team in a pre-commercial setting. Going forward, as development of the Zero Carbon Lithium™ Project ramps up, construction expenses and, in turn, operating expenditure will have a substantial impact on the Company's results. Administrative, employee benefit and other expenses will continue to be classified as operating expenditure, whereas construction related costs incurred in the construction phase of the project are capitalised as capital expenditures. The majority of Vulcan Group's development costs in the financial year ended 30 June 2022 and the short financial year ended 31 December 2022 were capitalised. With the commencement of production, the Company will begin to depreciate the asset value of its plants and the annual depreciation charge is expected to increase significantly as new facilities come into production. be material given the capital base of the project.

Lithium extraction operations based on the DLS method (such as the Zero Carbon Lithium™ Project) have higher capital costs at the outset as compared with more traditional methods of lithium extraction such as hard rock mining, while generally having lower ongoing operating costs than hard rock mining. According to Vulcan Group's DFS for Phase One, the total capital expenditure (not including financing costs) required for Phase One of the Zero Carbon Lithium™ Project is expected to be approximately EUR 1,496 million (including contingencies). On the basis that the implementation of Phase Two is targeted to achieve similar production levels as, and in addition to those of, Phase One, the Company currently anticipates a materially similar additional amount to be required for Phase Two, subject to the completion of a definitive feasibility study for Phase Two (expected during the course of 2023). However, the exact level of capital expenditure required for the Zero Carbon Lithium™ Project will be further refined as the Company advances the project, with the level of capital expenditure for Phase Two to be further refined in the definitive feasibility study for Phase Two. See section "6.8.2 Capital expenditure" below for a further discussion of Vulcan Group's estimated capital expenditure in connection with the Zero Carbon Lithium™ Project.

The financial model reflected in Vulcan Group's DFS for Phase One includes certain contingencies and assumptions and the Company believes that if the project were to encounter unforeseen variances during the drilling and construction phase, a certain level of associated cost increases could be absorbed into the Company's financial model without a significant financial impact on the viability of the Zero Carbon Lithium™ Project. However, it should be noted that the Zero Carbon Lithium™ Project is a highly complex project which incorporates many different engineering disciplines, and that certain aspects (including, among other things, LHM production via electrolysis) of the project represent new applications of technologies, and therefore there is the potential for unforeseen delays and cost overruns.

Once in the production phase, the cost of producing LHM relative to other production and extraction methods will be a key factor in determining Vulcan Group's profitability. The Company believes that the potential key strategic advantages of the Zero Carbon Lithium™ Project underpinning its relatively low estimated operating costs compared to other methods of processing LHM include:

- a low cost feedstock of brine from Vulcan Group's geothermal plants, which serve the dual purpose of lithium extraction and energy production in the form of renewable electricity and heat;
- the use of low-cost energy (in the form of heat) coming from Vulcan Group's own geothermal plants;
- the use of the adsorbent DLS method to isolate lithium as opposed to using large volumes of chemicals such as sulphuric acid to dissolve a rock feedstock or soda ash for brine; and
- the use of electrolysis to upgrade chloride into a high purity hydroxide using renewable energy, with no heavy reagent usage (such as sodium hydroxide or lime).

According to estimates in Vulcan Group's DFS for Phase One, if and when Phase One is fully operational, Vulcan Group's LHM production is expected to entail average operating expenditure (excluding corporate overhead costs) of approximately EUR 4,359 per tonne of LHM (including EUR 2,656 per tonne for the DLS process at the LEPs and EUR 1,704 per tonne for processing at the CLP (electrolysis)). This compares favourably to a modelled 20-year (2026-2045) average realised price forecast of EUR 30,283 per tonne of LHM according to the DFS.

The principal components of Vulcan Group's operating expenditure for the Zero Carbon Lithium™ Project, based on the DFS for Phase One, are expected to include:

- power, which is estimated to constitute approximately 83% of the geothermal plants' operating costs, 22% of the LEPs' operating costs and 33% of the CLP's operating costs; Vulcan Group expects to purchase its power requirements, beyond those it can satisfy using its own geothermal power, from the grid, preferably from green energy providers;
- labour costs, which are estimated to comprise approximately 24% of the LEPs' operating costs and 25% of the CLP's operating costs;
- maintenance costs, which are estimated to constitute approximately 8% of the geothermal plants' operating costs, 21% of the LEPs' operating costs and 15% of the CLP's operating costs;
- consumables (mainly resin, which is used in adsorbing lithium from the geothermal brine), which are estimated to constitute approximately 13% of the LEPs' operating costs; Vulcan Group currently expects to source resin through long term fixed contracts (of between 3-5 years) negotiated directly with providers; and
- services, trucking, reagents, water, steam, nitrogen and other costs, which together make up the balance of operating costs.

The operating costs of DLS technologies are typically higher than those of solar evaporation of lithium brines, due to their requirement for external power. However, projects based on geothermally heated brines, such as the Zero Carbon Lithium™ Project, require less external power to heat the brines as compared with non-geothermal brines, which may help to lower these costs.

With respect to the geothermal business, more than 83% of the operating costs are expected to be attributable to power costs, with the balance attributable to labour and maintenance supplies.

The actual costs incurred by Vulcan Group are subject to a variety of factors, including the availability of supply and inflation. For example, over the past year the price for energy, including electric power, has increased significantly (due in large part to the effects of the Russia-Ukraine Conflict) and resulted in higher costs for Vulcan Group, its suppliers and its customers, with the annual inflation rate for energy in the Eurozone standing at 25.5% in December 2022 according to Eurostat, while in Germany energy prices rose by 34.7% in 2022 year on year (with electricity rising by 20.1% and natural gas rising by 64.8%, according to Statistisches Bundesamt (Destatis)).

Increases in Vulcan Group's variable operating costs will have a negative effect on Vulcan Group's results, while decreases will have a positive effect on Vulcan Group and enhance Vulcan Group's margins (see sections "1.1.5 Lithium exploration and development companies face risks along the entire value chain to extract and produce lithium, which may result in substantial delays or operational shut-downs, may require significant capital outlays or may result in an inadequate return or loss on invested capital." and "1.2.2 The resource estimates relating to Vulcan Group's current and future projects are subject to certain assumptions and interpretations which may prove to be inaccurate. Any material deviations may result in alterations to development plans which may, in turn, adversely affect Vulcan Group's operations.").

Operating expenditure has increased during the period under review as Vulcan Group has ramped up its Zero Carbon Lithium™ Project, growing from EUR 7.0 million in the financial year ended 30 June 2021 to EUR 27.5 million in the financial year ended 30 June 2022 (of which EUR 16.7 million were attributable to Germany and EUR 10.8 million were attributable to Australia). This increase included increases in:

- administrative expenses from EUR 556,000 in the financial year ended 30 June 2021 to EUR 3,790,000 in the financial year ended 30 June 2022 (EUR 2,127,000 in the short financial year ended 31 December 2022);
- employee benefit expense from EUR 391,000 in the financial year ended 30 June 2021 to EUR 7,793,000 in the financial year ended 30 June 2022 (EUR 8,097,000 in the short financial year ended 31 December 2022), reflecting a significant (109 FTE) increase in

personnel (with just under 50% of this increase being attributable to acquisitions and the remainder reflecting organic growth);

- consultancy and legal expenses increasing from EUR 1,204,000 in the financial year ended 30 June 2021 to EUR 4,099,000 in the financial year ended 30 June 2022 (EUR 1,362,000 in the short financial year ended 31 December 2022); and
- and depreciation and amortisation from EUR 82,000 in the financial year ended 30 June 2021 to EUR 2,629,000 in the financial year ended 30 June 2022 (EUR 2,299,000 in the short financial year ended 31 December 2022),

as discussed further in section "6.6.2 Development of the results of operations for the six-month periods ended 31 December 2022 and comparison of the results of operations and the financial years ended 30 June 2022, 2021, and 2020" below. Operating expenditure is likely to increase substantially over time as additional expenditure (principally employee costs) will be necessary to support the increased levels of activity within the Company, particularly once the Zero Carbon Lithium™ Project is in the production phase (commencing with Phase One, which is expected to commence commercial production at year-end 2025). In particular, in order to achieve its development strategy within the targeted timeframe the Company is seeking to further significantly grow its multi-disciplinary team during the coming months and years by adding industry experts in key discipline areas that will be vital to delivering the proposed development plan, and in particular is targeting a significant increase in the number of staff over the next three to five years as it is planned to transition to an execution and production company. Additionally, as more of Vulcan Group's assets reach the production stage, some costs that are currently capitalised during the construction phase are expected to be reflected as operating expenditure on the Company's Consolidated Statement of Profit or Loss and Other Comprehensive Income in the future.

6.2.5 The impact of acquisitions

During and following the periods under review, Vulcan Group has grown through acquisitions, and Vulcan Group may make further acquisitions and investments in the future in line with its growth strategy that may have a significant effect on Vulcan Group's revenue and profitability. Vulcan Group acquired Vulcan Energy Resources Europe Pty Ltd in September 2019, which represented the acquisition of the Zero Carbon Lithium™ Project that is now the focus of Vulcan Group's strategy and was transformational for Vulcan Group. The total consideration for this acquisition, including up front and deferred consideration, was A\$6,794,800. In the financial years ended 30 June 2020 and 30 June 2021, share-based payment expenses in connection with shares issued to the vendors and introducers (including Dr Francis Wedin and Dr Horst Kreuter) as consideration, as well as advisory, legal and other expenses connected to the acquisition, represented a significant proportion of Vulcan Group's expenses. Such share-based payment expenses were also incurred in the financial year ended 30 June 2022 and the short financial year ended 31 December 2022, but represented a lower portion of total expenses given the ramp-up in Vulcan Group's development activities.

In July 2021, Vulcan Group acquired (i) Global Geothermal Holding UG ("**GGH** (meanwhile merged with and into Vulcan Energie)), which then held an exploration licence for geothermal energy and exploration licence applications for geothermal energy and lithium, near the southwest German cities of Mannheim, Karlsruhe, Speyer and Neustadt (such licences now held by Vulcan Energie), for an acquisition price of EUR 57,411 plus deferred consideration in the form of Performance Shares with a fair value of EUR 363,307 to be issued upon the achievement of certain milestones; and (ii) two geothermal engineering companies, GeoThermal Engineering GmbH ("**GeoT**"), since renamed Vulcan Energy Subsurface Solutions GmbH ("**VESS**"), and gec-co Global Engineering & Consulting-Company GmbH ("**Gec-co**"), since renamed Vulcan Energy Engineering GmbH ("**VEE**"), which are focused on the sub-surface development of deep geothermal projects and the above-surface development of geothermal power and heating plants, in Europe and worldwide, respectively, for a combined purchase price of EUR 1,627,720 plus up to EUR 862,750 in deferred earn-out consideration to be paid upon the achievement of certain milestones.

In December 2021, Vulcan Group acquired Pfalzwerke geofuture GmbH (renamed Natürlich Insheim GmbH), which owns and operates the Insheim geothermal renewable energy Plant and holds a geothermal exploitation licence granting it the exclusive right to geothermal renewable energy from brine extracted from the site of the Insheim Plant, for a purchase price of EUR 31,274, 397 (after purchase price adjustments). Accordingly, Vulcan Group earned revenue and incurred costs in connection with the sale of electricity at the Insheim Plant in the financial year ended 30 June 2022 and the short financial year ended 31 December 2022 and plans to continue to do so in future

financial years. Revenues of Natürlich Insheim for the periods ending 31 December 2020 and 31 December 2021 amounted to EUR 5,912,287 and EUR 5,756,012, respectively (according to German generally accepted accounting principles).

In January 2023, the Company acquired Comeback through Vulcan Energie, the Company's direct subsidiary in Germany, to insource drilling personnel capabilities, adding approximately 46 personnel to Vulcan Group's in-house development drilling team. For additional information, see section "7 PRO FORMA FINANCIAL INFORMATION".

Although Vulcan Group's current operations are focused on its Zero Carbon Lithium™ Project in the Upper Rhine Valley of Germany, Vulcan Group is continually exploring other acquisition and development opportunities in various locations, particularly those with significant, established geothermal brine reservoirs and high lithium grades. Vulcan Group's acquisition strategy is focused on opportunities related to Vulcan Group's core expertise of converting geothermal brine to renewable energy and lithium. Although Vulcan Group has not entered into any binding commitments with respect to any such further acquisitions, Vulcan Group's business may expand geographically through acquisition activity in the future.

Vulcan Group uses the purchase method in the initial consolidation of subsidiaries in the course of business combinations. The acquired entity's identifiable assets, liabilities and contingent liabilities are recognised at their acquisition date fair values. Any excess of cost over the acquirer's interest in the fair value of the subsidiary's net identifiable assets is recognised as goodwill. Goodwill is reported in subsequent periods at cost less accumulated impairment losses.

The overall impact of acquisitions on Vulcan Group's financial results is a function of a variety of factors, including acquisition costs, subsequent capital expenditure involved in integration and development and the achievement of any operational efficiencies and synergies across the combined business. Vulcan Group's results of operations may be adversely affected by any delays or difficulties that it encounters in integrating acquisitions into its business, particularly if this results in the diversion of management and key employees from other parts of Vulcan Group's operations. The risk of such adverse effects may be heightened if Vulcan Group completes acquisitions in jurisdictions with which it has less experience. Vulcan Group may also fail to generate expected margins or cash flows, or to realise the anticipated benefits of any acquisitions, including expected operational, revenue, technical, cost and/or other synergies or benefits within anticipated timeframes or at all. In addition, Vulcan Group's assessments of, and assumptions regarding, acquisition targets may prove to be incorrect, and actual results may differ significantly from expectations. Vulcan Group may incur higher than expected capital expenditures and cost in seeking to achieve its growth strategy and it may be unable to realise the anticipated benefits of the capital expenditures and other investments, and may experience longer than anticipated investment payback periods. Vulcan Group may also have reduced amounts of cash available for use towards other initiatives.

6.2.6 Foreign currency exchange rates

Vulcan Group's Consolidated Annual Financial Statements 2020 and 2021 included in this Prospectus are presented in Australian dollars, which was Vulcan Energy Resources Limited's presentational currency during those financial years. However, Vulcan Group changed its presentational currency to euro with effect from the commencement of the financial year ended 30 June 2022, reflecting the focus of Vulcan Group's activities on the European market, its acquisitions of several German-based operating entities and its planned operations in Europe from which Vulcan expects it will generate the majority of its revenue and costs. As a result, Vulcan Group's Consolidated Annual Financial Statements 2022 and Consolidated Short Financial Year Financial Statements 2022 included in this Prospectus are presented in euro.

During the period up to and including the financial year ended 30 June 2021, Vulcan Group had significant translational exchange rate risk as a result of its presentational currency being Australian dollars, while its principal business activities are outside of Australia and its operations outside of Australia use currencies other than the Australian dollar, principally euro and the Norwegian krone (relating mainly to the Kuniko business). As a result, fluctuations in foreign currency exchange rates, in particular, the relative strength or weakness of the Australian dollar and euro have, during the periods up to and including the financial year ended 30 June 2021, had an impact on Vulcan Group's performance and results of operations. However, with effect from the financial year ended 30 June 2022, Vulcan Group's presentational currency has been changed to the euro. Following the change of Vulcan Group's presentational currency to euro, the translational exchange rate risk mainly relates to cash held by Vulcan Group in Australian dollars. Vulcan Group has hedged a significant portion of

this residual exchange rate risk in relation to Australian dollar cash reserves through the conversion of Australian dollar reserves into euro, although it has retained a level of Australian dollar cash reserves.

As Vulcan Group is, apart from the operational Insheim Plant, primarily in the exploration and development stage, it has not earned material revenues to date, but if the Zero Carbon Lithium™ Project achieves commercial production, Vulcan Group will earn revenues from the sale of LHM, as well as revenues from the sale of electricity and heat from its renewable energy business. Vulcan Group expects that these sales will be principally to European customers and denominated in euro (which is Vulcan Group's presentational currency from the financial year ended 30 June 2022), although it is possible that in the future Vulcan Group may export a portion of its LHM outside of Europe, in which case the associated revenues may be denominated in other currencies, principally the US dollar. Vulcan Group's costs have to date been incurred in a combination of Australian dollars, euro and Norwegian krone (relating mainly to the Kuniko business prior to its spin-off by Vulcan Group); however, as Vulcan Group's Zero Carbon Lithium™ Project in Germany ramps up towards construction and production, the majority of Vulcan Group's costs is expected to be incurred in euro. Until the change of Vulcan Group's presentational currency to euro, Vulcan Group's financial performance was, therefore, subject to fluctuations as a result of foreign currency exchange rate movements whenever financial information was translated from non-Australian dollar currencies and, subsequent to the change of Vulcan Group's presentational currency to euro, Vulcan Group's financial performance is subject to the translation of financial information from non-euro currencies.

In addition to the translational impact of exchange rate fluctuations, Vulcan Group is exposed to transactional exchange rate risk, which arises as a result of payments Vulcan Group makes or receives in local currencies. Revenues received by Vulcan Group's subsidiaries are usually but not always received in the same currency as the expenses incurred by such subsidiaries. For the financial year ended 30 June 2020 and the financial year ended 30 June 2021 (during which years Vulcan Group did not earn material revenue), approximately nil and 52%, respectively, of Vulcan Group's revenue was earned in currencies other than Australian dollars and approximately 10% and 15%, respectively, of Vulcan Group's expenses were incurred in currencies other than Australian dollars. For the financial year ended 30 June 2022, 2% of Vulcan Group revenue (excluding one off gain on deconsolidation of Kuniko and loss from investment in associate) was earned in currencies other than euros and approximately 38% of Vulcan Group's expenses (excluding income tax expense) were in currencies other than euros. For the short six-month financial year ended 31 December 2022, 6% of Vulcan Group revenue was earned in currencies other than euros and approximately 22% of Vulcan Group's expenses (excluding income tax expense) were in currencies other than euros. Vulcan Group expects that, going forward, a degree of transactional exchange rate risk will remain as certain materials will need to be imported from outside the Eurozone, with costs in currencies other than euro. Moreover, pricing under the lithium offtake agreements concluded by Vulcan Group is based on market prices, calculated by reference to certain indices. The indices commonly used are PRA contract indices as provided by, for example, Fastmarkets. These indices are currently typically quoted in US dollars, exposing Vulcan Group to a transactional exchange rate risk. While Vulcan Group expects that by the time it commences commercial production indices quotes in euro may become available for the European market, there can be no assurance that this will be the case. Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at period end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in profit or loss.

6.2.7 Vulcan Group's financing arrangements

Historically, Vulcan Group's finance costs have been minimal. However, Vulcan Group expects to incur increasing levels of finance costs as a result of the construction and development of its Zero Carbon Lithium™ Project. Based on estimates contained in Vulcan Group's DFS for the Zero Carbon Lithium™ Project, initial capital expenditure (not including financing costs) of approximately EUR 1,496 million (including contingencies) will be required for the development of Phase One (targeted to commence commercial production at year-end 2025) and, on the basis that the implementation of Phase Two is targeted to achieve similar production levels as, and in addition to those of, Phase One, the Company currently anticipates a materially similar additional amount for Phase Two (targeted to commence commercial production in 2026/27), subject to the completion of a definitive feasibility study for Phase Two (expected during the course of 2023). However, as the Company has not completed a definitive feasibility study in relation to Phase Two, there remains significant uncertainty regarding the funding requirements for Phase Two. The exact level of capital expenditure

required for the Zero Carbon Lithium™ Project will be further refined as the Company advances the project. Vulcan Group intends to plan further phases across Vulcan Group's licence area following Phase Two, as Vulcan Group plans to grow production in a staged, modular fashion.

The ability to develop the Zero Carbon Lithium™ Project will depend on the future availability of further funding. The Company is in the process of finalising its funding plan for Phase One based on the DFS for Phase One and is targeting completion of the debt and equity financing process for Phase One in the first quarter of 2024. It expects to finalise its funding plan for Phase Two following the completion of its definitive feasibility study for Phase Two (expected to be completed during the course of 2023). Subject to finalising the funding plan, Vulcan Group expects to finance the Zero Carbon Lithium™ Project through a combination of green financing and, potentially, syndicated senior debt, hybrid debt, equity investment from third parties at the level of project-related special purpose vehicles (project level) and/or further equity fundraising in the capital markets at the parent level (if needed). Vulcan Group is already in discussions with potential finance parties (some of whom have provided written in-principle support for the provision of senior debt for the Zero Carbon Lithium™ Project). Vulcan Group is targeting to fund approximately 65% of the Phase One capital expenditure requirements through debt financing and to fund the balance through equity funding (including at the project level).

Regarding project level equity financing, Vulcan Group is engaging with potential strategic partners to invest at a project level and also provide expertise to develop and execute the Zero Carbon Lithium™ Project and, in April 2023, the Company signed a term sheet, subject to definitive agreements, regarding a proposed strategic partnership with Nobian, for the formation of a proposed 50/50 joint venture over, and equity financing of, Vulcan Group's CLP (see section "9.1.3.4 Funding and SPVs").

Regarding debt financing, Vulcan Group is engaging with a number of institutions including the European Investment Bank (EIB), Export Credit Agencies (ECAs) and commercial banks, and has received non-binding in-principle support for financing of Phase One from several ECAs, subject to certain conditions. In particular:

- Bpifrance Assurance Export, the French ECA and subsidiary of Bpifrance, the French national investment bank, acting in the name, on behalf and under the control of the French State, confirmed, based on the value of Vulcan's lithium offtake agreements with automakers Stellantis and Renault, and its strategic importance to the French Automotive industry, the eligibility of Vulcan's project to their untied program *Garantie des Projets Stratégiques* (Guarantee of Strategic Projects), designed by the French government to support projects that have a national interest for the French economy in France and abroad;
- SACE, Italy's government ECA, confirmed Vulcan's project eligibility to their tied Export Credit Program (with "tied" financing referring to financing linked to a supply of goods or services from the ECA's country), based on the expected presence of an Italian contractor amongst the construction contractors; and
- Export Development Canada, the Canadian ECA, confirmed its interest in participating through direct lending in the financing of Phase One, based on the expected presence of Canadian contractors and the project's purchase of Canadian goods and services. Export Development Canada's participation is conditional on the successful completion of its due diligence process.

Vulcan Group expects to receive feedback from further government-funded ECAs regarding the eligibility of the project for ECA-backed financing in the coming months.

Vulcan Group may also consider the bond market once in production, in view of the increasing market demand for bonds that meet Environmental, Social, and Governance ("**ESG**") criteria and the availability of longer term yields in the bond market as compared to project finance (high yield) bonds. Vulcan Group has appointed BNP Paribas to assist it with a bankability study and advise Vulcan Group on its project financing process. As at the date of this Prospectus, Vulcan Group has not entered into any relevant agreements in relation to debt financing for funding of the Zero Carbon Lithium™ Project.

Vulcan Group anticipates that the mix of debt and equity financing may vary by reference to the part of the business to which the funding relates. Vulcan Group expects that the funding for the development of the renewable energy business (which represents a more mature industry), estimated to amount to approximately EUR 657 million of the Phase One capital expenditure funding

requirement, may be comprised of a relatively larger proportion of debt financing than the funding for the development of the lithium business, estimated to amount to approximately EUR 839 million of the Phase One capital expenditure funding requirement. The Company anticipates that it may be able to achieve a higher debt to equity funding ratio for the development of Phase Two of the lithium business once the process is commercially viable; however, this will be evaluated at the time based on a range of factors.

The Zero Carbon Lithium™ Project benefits from being a lithium chemicals project supported through funding by, and collaboration with, EU-backed group EIT InnoEnergy, the founder and steward of the European Battery Alliance. Vulcan Group has also been the beneficiary of other government grants, and is further engaging with the relevant bodies in Germany and the EU regarding the possibility of securing further grants and support, including under the Temporary Crisis and Transition Frameworks (TCTF) programme and the Federal Funding for efficient Heat Networks (BEW) programme by the Federal Ministry for Economic Affairs and Climate Action (BMWK) in Germany and under the Green Deal Industrial Plan and the European Critical Raw Material Act in the European Union.

Although Vulcan Group has not yet entered into or agreed the terms of any debt facility, the Company expects that, once entered into, Vulcan Group will have a material interest expense, which may be at a variable rate. As such, the amount of interest payable by the Company would ultimately be a function of the prevailing interest rates. A material increase in interest rates during the development phase or once commercial production commences would lead to a higher interest expense for Vulcan Group. In the absence of any material revenue before the commencement of material commercial production, these finance costs may generate additional losses before taxation. These losses may be compounded if the Company is required to incur more debt than currently expected (for example, if the Company is required to finance cost overruns in connection with the Zero Carbon Lithium™ Project). Any debt facilities entered into may also impose financial or other covenants on Vulcan Group.

6.3 Recent Accounting Pronouncements

Vulcan Group has adopted AASB 16 from 1 July 2019. AASB 16 replaces AASB 117 'Leases' and for lessees eliminates the classifications of operating leases and finance leases. Except for short-term leases and leases of low-value assets, right-of-use assets and corresponding lease liabilities are recognised in the statement of financial position. Straight-line operating lease expense recognition is replaced with a depreciation charge for the right-of-use assets (included in operating costs) and an interest expense on the recognised lease liabilities (included in finance costs). In the earlier periods of the lease, the expenses associated with the lease under AASB 16 will be higher when compared to lease expenses under AASB 117. However, EBITDA (Earnings Before Interest, Tax, Depreciation and Amortisation) results improve as the operating expense is now replaced by interest expense and depreciation in profit or loss. For classification within the statement of cash flows, the interest portion is disclosed in operating activities and the principal portion of the lease payments are separately disclosed in financing activities. For lessor accounting, AASB 16 does not substantially change how a lessor accounts for leases. The adoption of AASB 16 has not have a material impact on Vulcan Group given the low level of leases within Vulcan Group.

Australian Accounting Standards and Interpretations relevant to Vulcan Group that have recently been issued or amended but are not yet mandatory (including amendments to AASB 17, AASB 2020-1, AASB 2020-6, AASB 2021-2 and IAS 12 all of which apply to Vulcan Group as from 1 January 2023), have not been adopted by Vulcan Group for the annual reporting period ended 31 December 2022. Vulcan Group has not yet fully assessed the impact of these new or amended Accounting Standards and Interpretations but does not expect them to have a significant impact on Vulcan Group's results.

6.4 Segment information

For the financial years ended 30 June 2020 and 30 June 2021 and following the acquisition of a 100% interest in Vulcan Energy Resources Pty Ltd (later renamed Vulcan Energy Resources Europe Pty Ltd) which held the Zero Carbon Lithium™ Project in the Upper Rhine Valley of Germany on 4 September 2019, it was determined that Vulcan Group operated in three operating segments: lithium chemicals and geothermal renewable energy exploration in Germany; base metals exploration in Norway; and administration. Beginning in the financial year ended 30 June 2022, the Company changed its operating segments to three segments based on geographical location: Germany, Other European and Australia. The "Other European" segment includes Italy, France and

Norway (including Vulcan Group's minority interest in Kuniko, giving it exposure to base metals exploration in Norway). See note 3 to each of the Consolidated Financial Statements for the financial year ended 30 June 2020, 30 June 2021 and 30 June 2022 and the short financial year ended 31 December 2022 for further detail with respect to segment performance during the periods under review.

6.5 Description of key line items

6.5.1 Revenue from continuing operations

Vulcan Group is currently in the exploration and development phase and, therefore, did not earn material revenue during the periods under review (save in respect of revenues from the Insheim Plant, as discussed below). Prior to the financial year ended 30 June 2022, all revenue earned by Vulcan Group during the periods under review was classified as "other income", albeit in the Consolidated Annual Financial Statements 2020 and 2021 the line item "other income" appeared under the heading "revenue from continuing operations".

Following the acquisition of the Insheim Plant in December 2021, Vulcan Group has commenced earning revenues from the sale of electricity, which from the financial year ended 30 June 2022 is classified as "revenue from continuing operations". Revenue from continuing operations also includes a small amount of revenue from the external businesses of VESS and VEE, acquired by Vulcan Group in July 2021. If and when Vulcan Group's Zero Carbon Lithium™ Project reaches commercial production (with Phase One commercial production currently targeted for late 2025 and Phase Two commercial production currently targeted for 2026/27), Vulcan Group intends to earn revenues both from the sale of LHM from its lithium business and the sale of electricity and heat from its renewable energy business.

6.5.2 Other income

Other income comprises principally government grants, Research and Development tax incentives and funds received from EIT InnoEnergy towards development of Vulcan Group's Zero Carbon Lithium™ Project. Up until (and including) the financial year ended 30 June 2021, finance income such as interest revenue was also classified as "other income".

Dividends from equity investments are recognised in the profit or loss as other income when Vulcan Group's right to receive payments is established.

6.5.3 Finance Income

Finance income relates to interest revenue.

Interest revenue is recognised as interest accrued using the effective interest method. This is a method of calculating the amortised cost of a financial asset and allocating the interest income over the relevant period using the effective interest rate, which is the rate that exactly discounts estimated future cash receipts through the expected life of the financial asset to the net carrying amount of the financial asset.

Up until (and including) the financial year ended 30 June 2021, finance income such as interest revenue was classified as "other income" and, therefore, was not presented separately in the Company's Statement of Profit or Loss and Other Comprehensive Income.

6.5.4 Gain on deconsolidation

In the financial year ended 30 June 2022, Vulcan Group recorded a EUR 1,975,185 gain on deconsolidation, attributable to the fair value of Vulcan Group's residual interest in Kuniko following its spin-off.

6.5.5 Share of loss from equity accounted investments

In the financial year ended 30 June 2022, Vulcan Group recorded a EUR 495,000 share of loss from equity accounted investments, attributable primarily to the share of loss in Kuniko for the period 17 August 2021 to 30 June 2022 following the spin-off of Kuniko by the Company.

6.5.6 Other own work capitalised

Other own work capitalised comprises services provided by VEE and VESS to Vulcan Energie Ressourcen GmbH, a wholly-owned subsidiary of the Company, which have been capitalised to exploration and evaluation expenditure and property, plant and equipment. Further capitalization was done for Vercana staff expenses for the refurbishment of the drill rigs. Other own work capitalised does not relate to any external revenue or any profit margin charge to intercompany transactions.

6.5.7 Raw materials and purchased services

During the periods under review, Vulcan Group incurred expenses for raw materials and purchased services, including purchased services relating to the businesses of VESS and VEE acquired by Vulcan Group in July 2021 as well as raw materials and purchased services in connection with the operation of the Insheim Plant and Vulcan Group's Zero Carbon Lithium™ Project.

6.5.8 Finance costs

Finance cost is comprised of interest on leases the Vulcan Group has as well as interest expense, which during the period under review comprised primarily interest on EUR deposits held.

6.5.9 Administrative expenses

Administrative expenses comprise accounting, audit and company secretarial fees, travel expenses and general and administrative expenses.

6.5.10 Compliance and regulatory expenses

Compliance and regulatory expenses comprise ASX, ASIC, FSE and audit and taxation advice costs.

6.5.11 Depreciation and amortisation

During the periods under review, depreciation related to depreciation of plant & equipment, software, right of use assets and intangible assets. From the acquisition of the Insheim Plant in December 2021, depreciation costs included depreciation costs associated with the purchase price allocation of Insheim Plant equipment. Once Vulcan Group has commenced commercial production from other assets currently under development, it is expected that depreciation will also include depreciation of those production assets and capitalised expenses.

Once assets are available for use, depreciation is calculated using the straight-line method to allocate asset costs over their estimated useful lives, as follows:

Software: 3 -5 years

Plant & Equipment: 2-20 years

6.5.12 Consulting and legal fees

Consulting and legal fees comprise corporate advisory fees, consulting fees and legal fees.

6.5.13 Employee benefit expenses

Employee benefit expenses comprise salary and wages and associated costs.

6.5.14 Investor relations

Investor relations expenses comprise fees paid to media companies as well as share-based payments to investor publications.

6.5.15 Introducer fee

Introducer fees represent a share-based payment expense recognised in the Statement of Profit or Loss and Other Comprehensive Income in respect of certain shares issued to the introducers of the Vulcan Energy Resources Europe Pty Ltd acquisition as part of the consideration of the acquisition. During the periods under review, introducer fees were only recognised in the financial year ended 30 June 2020.

6.5.16 Occupancy costs

Occupancy costs comprise rent of office premises.

6.5.17 Impairment expense

Impairment expense comprises impairments to the Company's exploration and evaluation assets, principally for relinquished exploration licences in Norway.

6.5.18 Loss on disposal of financial assets

During the period under review, loss on disposal of financial assets comprises principally losses on the disposal of liquid bonds in which the Company invested as part of its cash management.

6.5.19 Share-based payment expense

Share-based payment expense comprises share-based payment expenses recognised in the Statement of Profit or Loss and Other Comprehensive Income in respect of certain shares issued to outside parties (including the vendors (Dr Francis Wedin and Dr Horst Kreuter) in respect of the acquisition of Vulcan Energy Resources Europe Pty Ltd) and share-based remuneration provided to employees, consultants and directors.

6.5.20 Other expenses

Other expenses comprise office expenses and IT costs.

6.5.21 Foreign currency (losses) / gain

Foreign currency (losses) / gain represent losses and gains resulting from the settlement of foreign currency transactions and from the translation at period end exchange rates of monetary assets and liabilities denominated in foreign currencies.

6.5.22 Income tax benefit/expense

Income tax expense comprises current income tax expense and deferred tax expense.

Current income tax expense charged to the profit or loss is the tax payable on taxable income calculated using applicable income tax rates enacted, or substantially enacted, as at the end of the reporting period. Current tax liabilities (assets) are therefore measured at the amounts expected to be paid to (recovered from) the relevant taxation authority.

Deferred tax expense reflects movements in deferred tax asset and deferred tax liability balances during the year as well as unused tax losses.

Current and deferred income tax expense (income) is charged or credited directly to equity instead of the profit or loss when the tax relates to items that are credited or charged directly to equity.

6.6 Results of operations

6.6.1 Overview

The table below presents Vulcan Group's results of operations for the periods indicated, which information has been extracted without material adjustment from the historical financial information set out in the Consolidated Financial Statements which are reproduced in this Prospectus beginning on page F-1.

Through the end of the financial year ended 30 June 2021, Vulcan Group's presentational currency was the Australian dollar. With effect from the financial year ended 30 June 2022, Vulcan Group changed its presentational currency to euro, reflecting the focus of Vulcan Group's activities on the European market, its acquisitions of several German-based operating entities and its planned operations in Europe from which Vulcan expects it will generate the majority of its revenue and costs. Therefore, the financial information for the financial year ended 30 June 2022 and the short financial year ended 31 December 2022 is presented in euro, and is therefore not directly comparable with the financial information for the financial years ended 30 June 2020 and 2021, which is presented in Australian dollars. To aid the comparison of the results of operations for the financial year ended 30 June 2021 to the results of operations for the financial year ended 30 June 2022 below, the information in respect of the financial year ended 30 June 2021 has been presented in

both Australian dollars and euro, with the information presented in euro based on a translation of the original Australian dollar information using the average daily exchange rate during the period, being A\$ 1/ EUR 0.6260.

In 2022, the Company changed its financial year end from 30 June to 31 December in order to align with the financial year commonly used in Germany (i.e. the calendar year), following the Company's listing on the regulated market of the FSE and in line with the Company's focus on developing its European renewable energy and Zero Carbon Lithium™ business. As a consequence, the short financial year ended 31 December 2022 consists of the six month period from 1 July 2022 to 31 December 2022 and therefore is not fully comparable with the prior and future financial years of the Company, which cover 12-month periods. Additionally, as Vulcan Group only acquired the Insheim Plant in December 2021, comparability of the short financial year ended 31 December 2022 to any financial year or interim period prior to December 2021 is also limited by the fact that such prior financial periods did not include the results of the Insheim Plant.

	Short financial year ended 31 December		Financial year ended 30 June	
	2022 EUR	2022 EUR	2021 A\$	2020 A\$
	(audited)	(audited)	(audited)	(audited)
Revenue from continuing operations	3,622,000	3,799,000	-	-
Other income	213,000	317,000	631,542 ⁽¹⁾	95,342 ⁽¹⁾
Finance income	615,000	350,000	-	-
Gain on deconsolidation	-	1,975,000	-	-
Share of loss from equity accounted investments	(249,000)	(495,000)	-	-
Other own work capitalised	3,489,000	3,696,000	-	-
Raw materials and purchased services	(3,119,000)	(2,512,000)	-	-
Finance cost	(177,000)	(155,000)	-	-
Administrative expenses	(2,127,000)	(3,790,000)	(888,145)	(320,920)
Compliance and regulatory expenses	(304,000)	(729,000)	(551,639)	(98,906)
Consulting and legal fees	(1,362,000)	(4,099,000)	(1,922,771)	(424,603)
Depreciation and amortisation	(2,299,000)	(2,629,000)	(131,522)	-
Employee benefit expenses	(8,097,000)	(7,793,000)	(624,829)	(234,551)
Investor relations	(231,000)	(615,000)	(410,338)	(314,510)
Introducer fee	-	-	-	(150,000)
Occupancy costs	(1,265,000)	(498,000)	(55,930)	(18,148)
Impairment expenses	-	(36,000)	(228,663)	(286,017)
Share-based payments expense	(711,000)	(3,637,000)	(6,517,484)	(1,690,473)
Loss on disposal of financial assets	-	(745,000)	-	-
Other expenses	(1,446,000)	(1,175,000)	(120,877)	(103,406)
Foreign currency (losses)/gain	(105,000)	285,000	76,042	(7,167)
Loss before income tax benefit/expense	(13,553,000)	(18,486,000)	(10,744,614)	(3,553,359)
Income tax benefit / (expense)	103,000	(365,000)	-	-
Loss after income tax for the period	13,450,000	(18,851,000)	(10,744,614)	(3,553,359)
Other comprehensive income /(loss)	(1,648,000)	6,990,000	(99,993)	(22,016)

	Short financial year ended 31 December		Financial year ended 30 June	
	2022 EUR	2022 EUR	2021 A\$	2020 A\$
	(audited)	(audited)	(audited)	(audited)
Total comprehensive loss attributable to the owners of Vulcan Energy Resources Limited	(15,098,000)	(11,861,000)	(10,844,607)	(3,575,375)

(1) Includes finance income of A\$ 120,678 in the financial year ended 30 June 2021 and of A\$ 45,342 in the financial year ended 30 June 2020 which are included in the line item "other income" in the Consolidated Annual Financial Statements 2021 and 2020, respectively. Since the financial year ended 30 June 2022, Vulcan Group presents finance income separately from "other income"

6.6.2 Development of the results of operations for the six-month periods ended 31 December 2022 and comparison of the results of operations and the financial years ended 30 June 2022, 2021, and 2020

6.6.2.1 Revenue from continuing operations

SFY2022

Revenue from continuing operations amounted to EUR 3,622,000 in the six-month short financial year ended 31 December 2022 and was primarily composed of revenues generated by the sale of electricity produced by the Insheim Plant, along with some revenue from engineering services provided to external clients.

FY2022 vs. FY2021

Revenue from continuing operations was EUR 3,799,000 in the financial year ended 30 June 2022, primarily driven by revenues from sale of goods in the amount of EUR 2,977,000 (representing the sale of electricity produced by the Insheim Plant following its acquisition by the Company in December 2021, attributable to the German segment) and, to a lesser extent, revenue from the rendering of services (representing revenues from services performed by VEE and VESS for external parties). Vulcan Group did not have revenue from continuing operations in the financial year ended 30 June 2021.

FY2021 vs. FY2020

As Vulcan Group had not commenced commercial production, its only revenue in the financial years ended 30 June 2021 and 30 June 2020 was from other income.

6.6.2.2 Other Income

SFY2022

Other income amounted to EUR 213,000 in the six-month short financial year ended 31 December 2022 and was primarily composed of government grants.

FY2022 vs. FY2021

Other income for the financial year ended 30 June 2022 was EUR 317,000, consisting of government grants, which amount was similar to the amount of other income in the prior financial year ended 30 June 2021 (being A\$510,864 (EUR 320,000), excluding finance income in an amount of A\$120,678), which consisted of R&D tax incentives and InnoEnergy funding.

FY2021 vs. FY2020

Other income increased by A\$460,864, or 921.7%, to A\$510,864 in the financial year ended 30 June 2021 (excluding finance income in an amount of A\$120,678) from A\$50,000 in the financial year ended 30 June 2020 (excluding finance income in an amount of A\$45,342). This increase was primarily driven by A\$327,380 in funding from EU-backed EIT InnoEnergy pursuant to an investment agreement signed in July 2020 and an A\$133,484 R&D tax incentive.

6.6.2.3 Finance Income

SFY2022

Finance income amounted to EUR 615,000 in the six-month short financial year ended 31 December 2022 and was primarily composed of interest earned on cash held.

FY2022 vs. FY2021

Finance income for the financial year ended 30 June 2022 was EUR 350,000 comprised of interest earned on cash held. Finance income for the financial year ended 30 June 2021 was A\$120,678 (included in the line item "other income" in the Consolidated Annual Financial Statements 2021).

FY2021 vs. FY2020

Finance income was higher in the financial year ended 30 June 2021 due to the capital raise undertaken during the financial year, which resulted in higher cash balances and increased interest income. Finance income increased by A\$75,336, or 166.2%, to A\$120,678 in the financial year ended 30 June 2021 from A\$45,342 in the financial year ended 30 June 2020 (included in the line item "other income" in the Consolidated Annual Financial Statements 2021 and 2020, respectively).

6.6.2.4 Gain on deconsolidation

SFY2022

Vulcan Group did not record a gain on deconsolidation in the six-month short financial year ended 31 December 2022.

FY2022 vs. FY2021

In the financial year ended 30 June 2022, Vulcan Group recorded a one-off EUR 1,975,185 gain on deconsolidation, attributable to the fair value of Vulcan Group's residual interest in Kuniko following its spin-off. It did not record a gain on deconsolidation in the financial year ended 31 June 2021.

FY2021 vs. FY2020

Vulcan Group did not record a gain on deconsolidation in the financial years ended 31 June 2021 or 30 June 2020.

6.6.2.5 Share of loss from equity accounted investments

SFY2022

Share of loss from equity accounted investments amounted to EUR 249,000 in the six-month short financial year ended 31 December 2022 and was primarily composed of Vulcan Group's share of Kuniko Limited running costs in developing its Norway assets.

FY2022 vs. FY2021

In the financial year ended 30 June 2022, Vulcan Group recorded a EUR 495,000 share of loss from equity accounted investments, attributable primarily to the share of loss in Kuniko for the period 17 August 2021 to 30 June 2022 following the spin-off of Kuniko by the Company completed in August 2021. It did not record a share of loss from equity accounted investments in the financial year ended 30 June 2021.

FY2021 vs. FY2020

Vulcan Group did not record a share of loss from equity accounted investments in the financial years ended 31 June 2021 or 30 June 2020.

6.6.2.6 Other own work capitalised

SFY2022

Other own work capitalised amounted to EUR 3,489,000 in the six-month short financial year ended 31 December 2022 and was primarily composed of services provided by VEE and VESS to Vulcan

Energie Ressourcen GmbH, a wholly-owned subsidiary of the Company. Such services related primarily to the engineering and design of the LEOP (by VEE) and the interpretation of seismic data (by VESS).

FY2022 vs. FY2021

In the financial year ended 30 June 2022, Vulcan Group recorded other own work capitalised of EUR 3,696,000, comprising services provided by VEE and VESS to Vulcan Energie Ressourcen GmbH. Such services related primarily to the engineering and design of the LEOP (by VEE) and the interpretation of seismic data (by VESS). Vulcan Group did not record other own work capitalised in the financial year ended 30 June 2021.

FY2021 vs. FY2020

Vulcan Group did not record other own work capitalised in the financial years ended 30 June 2021 or 30 June 2020.

6.6.2.7 Raw materials and purchased services

SFY2022

Expenses for raw materials and purchased services amounted to EUR 3,119,000 in the six-month short financial year ended 31 December 2022 and were primarily composed of materials purchased for the operations of the Insheim Plant and external services purchased.

FY2022 vs. FY2021

Expenses for raw materials and purchased services amounted to EUR 2,512,000 in the financial year ended 30 June 2022 and were primarily composed of materials used in the operation of the Insheim Plant following its acquisition by Vulcan Group in December 2022 and services purchased from VESS and VEE (other than those which were capitalised and recorded to "other own work capitalised"). Vulcan did not incur any expenses for raw materials and purchased services in the financial year ended 30 June 2021.

FY2021 vs. FY2020

Vulcan did not incur any expenses for raw materials and purchased services in the financial year ended 30 June 2021 or the financial year ended 30 June 2020.

6.6.2.8 Finance cost

SFY2022

Finance cost amounted to EUR 177,000 in the six-month short financial year ended 31 December 2022 and was primarily composed of interest on EUR cash balances held due to negative interest rates during the period, and interest on leases.

FY2022 vs. FY2021

Finance cost amounted to EUR 155,000 in the financial year ended 30 June 2022 and was primarily composed of interest on EUR cash balances held due to negative interest rates during the period, and interest on leases. Vulcan did not separately recognise finance costs in the financial year ended 30 June 2021.

FY2021 vs. FY2020

Vulcan did not separately recognise finance costs in the financial year ended 30 June 2021 or the financial year ended 30 June 2020.

6.6.2.9 Administrative expenses

SFY2022

Administrative expenses amounted to EUR 2,127,000 in the six-month short financial year ended 31 December 2022 and were primarily composed of expenses connected with the operation of VESS

and VEE and the Insheim Plant, as well as accounting, audit and company secretarial fees, insurances and travel expenses.

FY2022 vs. FY2021

Administrative expenses increased by EUR 3,234,000 or 581.7%, to EUR 3,790,000 in the financial year ended 30 June 2022 from A\$888,145 (EUR 556,000) in the financial year ended 30 June 2021. This increase was primarily driven by general expenses connected with the ramp-up of Vulcan Group's operations in Germany, including administrative expenses connected with the operation of VESS and VEE acquired in July 2021 and the Insheim Plant acquired in December 2021, as well as associated increases in accounting, audit and company secretarial fees and travel expenses.

FY2021 vs. FY2020

Administrative expenses increased by A\$567,225 or 176.7%, to A\$888,145 in the financial year ended 30 June 2021 from A\$320,920 in the financial year ended 30 June 2020. This increase was primarily driven by an A\$670,259 increase in general expenses connected with the ramp-up of Vulcan Group's operations in Germany, with costs including rent, public and stakeholder relations, information technology and recruitment. These costs were partially offset by lower accounting, audit and company secretarial fees and lower travel expenses as a result of travel restrictions put in place due to the COVID-19 pandemic.

6.6.2.10 Compliance and regulatory expenses

SFY2022

Compliance and regulatory expenses amounted to EUR 304,000 in the six-month short financial year ended 31 December 2022 and were primarily composed of costs connected with the Company's ASX and FSE listings.

FY2022 vs. FY2021

Compliance and regulatory expenses increased by EUR 384,000 or 111%, to EUR 729,000 in the financial year ended 30 June 2022 from A\$551,639 (EUR 345,000) in the financial year ended 30 June 2021. This increase was primarily driven by increased compliance and regulatory costs arising from the dual listing on the ASX and FSE (with the FSE listing completed in February 2022) and an increase in costs associated with equity raising and share placements undertaken during the period.

FY2021 vs. FY2020

Compliance and regulatory expenses increased by A\$452,733, or 457.7%, to A\$551,639 in the financial year ended 30 June 2021 from A\$98,906 in the financial year ended 30 June 2020. This increase was primarily driven by additional ASX costs relating to shares issued during the financial year ended 30 June 2021 (including a (combined) A\$120 million equity fundraising in February and June 2021).

6.6.2.11 Consulting and legal fees

SFY2022

Consulting and legal fees amounted to EUR 1,362,000 in the six-month short financial year ended 31 December 2022 and were primarily composed of legal fees and consulting fees associated with recruitment, corporate advisory and ESG reporting.

FY2022 vs. FY2021

Consulting and legal fees increased by EUR 2,895,000 or 240%, to EUR 4,099,000 in the financial year ended 30 June 2022 from A\$1,922,771 (EUR 1,204,000) in the financial year ended 30 June 2021. This increase was driven by increases across legal fees, consulting fees and corporate advisory fees associated with the listing of Vulcan Group's shares on FSE in February 2022, costs associated with equity raising and share placements and by the general ramp-up of Vulcan Group's business including the acquisitions of GeoT (now: VESS) and Gec-co (now: VEE) in July 2021 and the Insheim Plant in December 2021.

FY2021 vs. FY2020

Consulting and legal fees increased by A\$1,498,168, or 352.8%, to A\$1,922,771 in the financial year ended 30 June 2021 from A\$424,603 in the financial year ended 30 June 2020. This increase was driven by an A\$739,965 increase in consultancy fees and a A\$775,748 increase in legal fees, in each case principally in relation to a (combined) A\$120 million equity fundraising in February and June 2021, the spin-off of Kuniko, work done in relation to the acquisitions of the GGH (meanwhile merged with and into Vulcan Energie), GeoT (now: VESS) and Gec-co (now: VEE) and the general ramp-up of Vulcan Group's business. These increases were partially offset by a A\$17,544 reduction in corporate advisory fees.

6.6.2.12 Depreciation and amortisation

SFY2022

Depreciation and amortisation amounted to EUR 2,299,000 in the six-month short financial year ended 31 December 2022, primarily composed of depreciation associated with the Insheim Plant.

FY2022 vs. FY2021

Depreciation and amortisation increased by EUR 2,547,000 or 3106%, to EUR 2,629,000 in the financial year ended 30 June 2022 from A\$131,522 (EUR 82,000) in the financial year ended 30 June 2021. This significant increase was principally driven by the acquisition of the Insheim Plant in December 2021 (which gave rise to EUR 1.2 million in depreciation costs associated with the purchase price allocation of plant equipment) as well as increases in depreciation of intangible assets (primarily intangibles associated with the purchase price allocation of VEE), right of use assets and software.

FY2021 vs. FY2020

Depreciation and amortisation was A\$131,522 in the financial year ended 30 June 2021, relating to the depreciation and amortisation of plant and equipment, right of use assets and software as Vulcan Group began ramping up development of the Zero Carbon Lithium™ Project. Vulcan Group did not recognise any depreciation and amortisation in the financial year ended 30 June 2020.

6.6.2.13 Employee benefit expenses

SFY2022

Employee benefit expenses amounted to EUR 8,097,000 in the six-month short financial year ended 31 December 2022 and were primarily composed of employee costs. During the six months employees (full-time equivalent) rose from 129 to 184.

FY2022 vs. FY2021

Employee benefit expenses increased by EUR 7,402,000 or 1,893%, to EUR 7,793,000 in the financial year ended 30 June 2022 from A\$624,829 (EUR 391,000) in the financial year ended 30 June 2021. This significant increase was principally driven by an increase in employees (full-time equivalent) from 9 as of 30 June 2021 to 129 as of 30 June 2022, primarily driven by the acquisitions of Gec-co (now: VEE), GeoT (now: VESS) and Natürlich Insheim, as well as recruitment of technical and administrative staff in Germany to accelerate the development of the Zero Carbon Lithium™ Project.

FY2021 vs. FY2020

Employee benefit expenses increased by A\$390,278, or 166.4%, to A\$624,829 in the financial year ended 30 June 2021 from A\$234,551 in the financial year ended 30 June 2020. This increase was principally driven by an increase in Vulcan Group's employee headcount as it further expanded its operations in connection with the Zero Carbon Lithium™ Project.

6.6.2.14 Investor relations

SFY2022

Investor relations expenses amounted to EUR 231,000 in the six-month short financial year ended 31 December 2022 and were primarily attributable to securities issued to Rosberg X Racing (RXR) pursuant to a partnership agreement and an increase in Vulcan Group's investor base. The

partnership agreement (which has meanwhile expired) had been entered into in August 2021 among Vulcan Group and Rosberg X Racing, a company affiliated with sustainability entrepreneur and former Formula One World Champion Nico Rosberg. Under the partnership agreement, Vulcan Group was an official partner of RXR and RXR and Mr Rosberg became shareholders in the Company in return for advertising and promotional rights for the 2021 and 2022 Extreme E racing seasons.

FY2022 vs. FY2021

Investor relations expenses increased by EUR 358,000 or 139%, to EUR 615,000 in the financial year ended 30 June 2022 from A\$410,338 (EUR 257,000) in the financial year ended 30 June 2021. This increase was principally driven by a partnership agreement with Rosberg X Racing and expansion of the Zero Carbon Lithium™ Project and Vulcan Group's investor base.

FY2021 vs. FY2020

Investor relations expenses increased by A\$95,828, or 30.5%, to A\$410,338 in the financial year ended 30 June 2021 from A\$314,510 in the financial year ended 30 June 2020. This increase was principally driven by the expansion of the Zero Carbon Lithium™ Project and Vulcan Group's investor base.

6.6.2.15 Introducer fee

SFY2022

Vulcan Group did not incur an introducer fee in the six-month short financial year ended 31 December 2022.

FY2022 vs. FY2021

Vulcan Group did not incur an introducer fee in the financial year ended 30 June 2022 or the financial year ended 30 June 2021.

FY2021 vs. FY2020

Vulcan Group did not incur an introducer fee in the financial year ended 30 June 2021. In the financial year ended 30 June 2020, Vulcan Group incurred an introducer fee of A\$150,000, related to a share-based payment to the introducers of the acquisition of 100% of the shares in Vulcan Energy Resources Pty Ltd to Koppar Resources Limited.

6.6.2.16 Occupancy costs

SFY2022

Occupancy costs amounted to EUR 1,265,000 in the six-month short financial year ended 31 December 2022 and were primarily composed of offices in Australia and Germany as well as a laboratory in Germany. Occupancy also includes the reservation fee for land proposed for the construction of Vulcan Group's CLP.

FY2022 vs. FY2021

Occupancy costs increased by EUR 463,000 or 1,323%, to EUR 498,000 in the financial year ended 30 June 2022 from A\$55,930 (EUR 35,000) in the financial year ended 30 June 2021. This increase was principally due to the lease of additional buildings as part of the acquisitions of VESS and VEE .

FY2021 vs. FY2020

Occupancy costs increased by A\$37,782 or 208.2%, to A\$55,930 in the financial year ended 30 June 2021 from A\$18,148 in the financial year ended 30 June 2020. This increase was principally due to the occupancy of additional floor space for Vulcan Group's Australian operations.

6.6.2.17 Impairment expenses

SFY2022

There was no impairment in the six-month short financial year ended 31 December 2022.

FY2022 vs. FY2021

Impairment expenses decreased by EUR 107,000 or 75%, to EUR 36,000 in the financial year ended 30 June 2022 compared to A\$228,663 (EUR 143,000) in the financial year ended 30 June 2021. This decrease was primarily due to write downs (related principally to relinquished licences in relation to Vulcan Group's Norwegian assets) incurred in the financial year ended 30 June 2021.

FY2021 vs. FY2020

Impairment expenses decreased by A\$57,354, or 20.1%, to A\$228,663 in the financial year ended 30 June 2021 compared to A\$286,017 in the financial year ended 30 June 2020. This decrease was primarily due to lower write offs of Norwegian licence expenditure in the financial year ended 30 June 2021.

6.6.2.18 Share-based payment expense

SFY2022

Share-based payment expenses amounted to EUR 711,000 in the six-month short financial year ended 31 December 2022 arising primarily from performance rights issued to executives in the current and prior financial years.

FY2022 vs. FY2021

Share-based payment expense decreased by EUR 443,000 or 11%, to EUR 3,637,000 in the financial year ended 30 June 2022 from A\$6,517,484 (EUR 4,080,000) in the financial year ended 30 June 2021. This decrease was principally driven by a reduction of the expense relating to historical issues of performance rights in the financial year ended 30 June 2020.

FY2021 vs. FY2020

Share-based payment expense increased by A\$4,827,011, or 285.5%, to A\$6,517,484 in the financial year ended 30 June 2021 from A\$1,690,473 in the financial year ended 30 June 2020. This increase was principally driven by the grant in the financial year ended 30 June 2021 of A\$4,419,668 in performance rights to the Directors, staff and consultants to align their interests to that of the Company's shareholders and assist as an effective means of retaining staff, as well as additional Performance Shares issued to the vendors (Dr Francis Wedin and Dr Horst Kreuter) in connection with the acquisition by Vulcan Group of 100% of the issued capital of Vulcan Energy Resources Europe Pty Ltd, the issue of warrants to EIT InnoEnergy and the issue of other shares and options.

6.6.2.19 Loss from continuing operations before income tax

SFY2022

For the reasons set out above, loss from continuing operations amounted to EUR 13,553,000 in the six-month short financial year ended 31 December 2022.

FY2022 vs. FY2021

For the reasons set out above, loss from continuing operations before income tax increased by EUR 11,760,000 or 175% from A\$10,744,614 (EUR 6,726,000) in the financial year ended 30 June 2021 to EUR 18,486,000 in the financial year ended 30 June 2022.

FY2021 vs. FY 2020

For the reasons set out above, loss from continuing operations before income tax increased by A\$7,191,255, or 202.4%, from A\$3,553,359 in the financial year ended 30 June 2020 to A\$10,744,614 in the financial year ended 30 June 2021.

6.6.2.20 Income tax benefit/expense

SFY2022

Vulcan Group recognised an income tax benefit of EUR 103,000 in the six-month short financial year ended 31 December 2022, primarily due to movement in deferred tax assets and liabilities arising from differences in depreciation basis of property, plant and equipment.

FY2022 vs. FY2021

Vulcan Group incurred an income tax expense of EUR 365,000 in the financial year ended 30 June 2022, primarily due to taxes related to income from entities acquired during the period (principally Natürlich Insheim, as well as VEE and VESS). Vulcan Group did not incur any income tax expense in the financial year ended 30 June 2021.

FY2021 vs. FY2020

Due to Vulcan Group's loss from continuing operations in each of the financial years, Vulcan Group did not incur any income tax expense in the financial year ended 30 June 2020 or the financial year ended 30 June 2021.

6.6.2.21 Loss from continuing operations after income tax

SFY2022

For the reasons set out above, loss from continuing operations after income tax amounted to EUR 13,450,000 in the six-month short financial period ended 31 December 2022.

FY2022 vs. FY2021

For the reasons set out above, loss from continuing operations after income tax amounted to EUR 18,851,000 in the financial year ended 30 June 2022, an increase of EUR 12,125,000, or 180%, compared to EUR 6,726,000 (A\$ 10,744,614) in the financial year ended 30 June 2021.

FY2021 vs. FY2020

As Vulcan Group did not pay income tax in either financial year, its loss from continuing operations after income tax was the same as its loss from continuing operations before income tax in each of the financial year ended 30 June 2020 and the financial year ended 30 June 2021.

6.6.2.22 Other comprehensive income / loss

SFY2022

In the six-month short financial year ended 31 December 2022, Vulcan Group had other comprehensive loss of EUR 1,648,000, which principally related to translation of entities with a different functional currency to the group presentational currency.

FY2022 vs. FY2021

In the financial year ended 30 June 2022, Vulcan Group had other comprehensive gain of EUR 6,990,000, compared to other comprehensive loss of EUR (849,000) in the financial year ended 30 June 2021, which related in each case to translation of entities with a different functional currency to the group presentational currency. Vulcan changed its reporting currency in the financial year ended 30 June 2022 to EUR from AUD.

FY2021 vs. FY2020

In the financial year ended 30 June 2021, Vulcan Group had other comprehensive loss of A\$ 99,993, compared to other comprehensive loss of A\$ 22,016 in the financial year ended 30 June 2020, which related in each case to translation of entities with a different functional currency to the group presentational currency.

6.6.2.23 Total comprehensive loss

SFY2022

For the reasons set out above, Vulcan Group had a total comprehensive loss of EUR 15,098,000 in the six-month short financial year ended 31 December 2022.

FY2022 vs. FY2021

For the reasons set out above, total comprehensive loss increased by EUR 5,984,000 or 101.8%, from A\$10,844,607 (EUR 5,877,000), in the financial year ended 30 June 2021 to EUR 11,861,000 in the financial year ended 30 June 2022.

FY2021 vs. FY2020

For the reasons set out above, total comprehensive loss increased by A\$7,269,232, or 203.3%, from A\$3,575,375 in the financial year ended 30 June 2020 to A\$10,844,607 in the financial year ended 30 June 2021.

6.7 Assets, equity and liabilities

6.7.1 Overview

The following table shows selected information from the consolidated statements of financial position of the Company as at 31 December 2022 and as at 30 June 2022, 2021 and 2020. In respect of the financial position of the Company as at 30 June 2021, in order to aid comparison across periods, the information has been presented in both Australian dollars (being Vulcan Group's presentational currency through the financial year ended 30 June 2021) and euro (being Vulcan Group's presentational currency with effect from the current financial year ending 30 June 2022), with the Australian dollar information being translated into euro using the exchange rate as at 30 June 2021, being A\$ 1/ EUR 0.6320. The information presented in Australian dollars has been extracted from consolidated statements of financial position of the Company as at 30 June 2021 and 2020 and the information presented in euro has been extracted from the consolidated statements of financial position of the Company as at 31 December 2022 and as at 30 June 2022.

	As at Short financial year ended 31 December 2022	30 June 2022	As at 30 June 2021	30 June 2020
	EUR (audited)	EUR (audited)	A\$ (audited)	A\$ (audited)
ASSETS				
Current assets				
Cash and cash equivalents	134,107,000	175,416,000	114,705,865	6,421,557
Trade and other receivables	6,316,000	4,030,000	1,197,500	116,071
Contract assets	42,000	79,000	-	-
Inventories	155,000	138,000	-	-
Total current assets	140,620,000	179,663,000	115,903,365	6,537,628
Non-current assets				
Exploration and evaluation expenditure	30,135,000	20,440,000	13,793,798	2,556,980
Intangible assets	3,068,000	3,633,000	-	-
Property, plant and equipment	70,280,000	51,490,000	1,480,672	13,353
Right-of-use	3,377,000	2,990,000	566,246	-
Investments accounted for using equity method	974,000	1,214,000	-	-
Deferred tax assets	1,681,000	1,710,000	-	-
Total non-current assets	109,515,000	81,477,000	15,840,716	2,570,333
Total assets	250,135,000	261,140,000	131,744,081	9,107,961
LIABILITIES				
Current liabilities				
Trade and other payables	9,418,000	8,354,000	2,113,014	208,222
Lease liabilities	646,000	439,000	62,389	-
Provisions	752,000	608,000	87,584	13,700
Income tax liabilities	91,000	332,000	-	-
Deferred Income	132,000	-	-	-
Total current liabilities	11,039,000	9,733,000	2,262,987	221,922
Non-current liabilities				
Lease liabilities	2,670,000	2,566,000	496,547	-
Provisions	110,000	55,000	-	-
Deferred income	1,453,000	-	-	-

	As at Short financial year ended 31 December 2022	30 June 2022	As at 30 June 2021	30 June 2020
	EUR	EUR	A\$	A\$
	(audited)	(audited)	(audited)	(audited)
Deferred tax liabilities	1,702,000	1,463,000	-	-
Total non-current liabilities	5,935,000	4,084,000	496,547	-
Total liabilities	16,974,000	13,817,000	2,759,534	221,922
Net assets	233,161,000	247,323,000	128,984,547	8,886,039
EQUITY				
Contributed equity	259,158,000	258,933,000	136,500,372	11,836,741
Reserves	15,875,000	16,812,000	7,899,461	1,719,970
Accumulated losses	(41,872,000)	(28,422,000)	(15,415,286)	(4,670,672)
Total equity	233,161,000	247,323,000	128,984,547	8,886,039

6.7.2 Comparison of the consolidated financial position as of 31 December 2022 and as of 30 June 2022, 2021, and 2020

6.7.2.1 Current assets

31 December 2022 vs. 30 June 2022

Current assets decreased by EUR 39,043,000, or 21.7%, from EUR 179,663,000 as of 30 June 2022 to EUR 140,620,000 as of 31 December 2022. This decrease was primarily due to cash spent on the LEOP, costs for the refurbishment of electric drills, DFS costs, exploration costs and operating costs including labour and administrative costs.

30 June 2022 vs. 30 June 2021

Current assets increased by EUR 106,412,000, or 145.3%, from A\$115,903,365 (EUR 73,251,000) as of 30 June 2021 to EUR 179,663,000 as of 30 June 2022, primarily due to proceeds from the issue of shares in September 2021 and an equity placement to Stellantis N.V. in June 2022.

30 June 2021 vs. 30 June 2020

Current assets increased by A\$109,365,737, or 1,672.9%, from A\$6,537,628 as of 30 June 2020 to A\$115,903,365 as of 30 June 2021, primarily due to an increase in cash and cash equivalents attributable primarily to proceeds from the issue of shares.

6.7.2.2 Non-current assets

31 December 2022 vs. 30 June 2022

Non-current assets increased by EUR 28,038,000, or 34.4%, from EUR 81,477,000 as of 30 June 2022 to EUR 109,515,000 as of 31 December 2022. This increase was primarily due to the capitalisation of costs related to the construction of the LEOP, refurbishment of electric drill rigs, DFS costs and 3D seismic acquisition costs.

30 June 2022 vs. 30 June 2021

Non-current assets increased by EUR 71,462,000, or 713.5%, from A\$15,840,716 (EUR 10,015,000) as of 30 June 2021 to EUR 81,477,000 as of 30 June 2022, primarily due to the acquisition of the Insheim Plant (EUR 31.3 million), the acquisition and refurbishment of two electric drills rigs (EUR 10.1 million), the capitalisation of construction cost relating to the LEOP (EUR 10.5 million), the capitalisation of other exploration and evaluation attributable to progression of the DFS and the acquisition of 3D seismic data (EUR 11.3 million). To a lesser extent, the addition of goodwill and intangible assets associated with the acquisition of VEE (EUR 2.5 million) and the addition of the investment in Kuniko following its spin-off by Vulcan Group in August 2021 (EUR 1.2 million).

30 June 2021 vs. 30 June 2020

Non-current assets increased by A\$13,270,383, or 516.3%, from A\$2,570,333 as of 30 June 2020 to A\$15,840,716 as of 30 June 2021, primarily due to an increase in capitalised exploration and evaluation expenditure attributable to the acquisition of the Zero Carbon Lithium™ Project and other exploration activity during the year ended 30 June 2021 and increases in the carrying value of software and plant and equipment.

6.7.2.3 Current liabilities

31 December 2022 vs. 30 June 2022

Current liabilities increased by EUR 1,306,000, or 13.4%, from EUR 9,733,000 as of 30 June 2022 to EUR 11,039,000 as of 31 December 2022. This increase was primarily due to an increase in trade payables associated with increased activity at the Zero Carbon Lithium™ Project, including orders related to the LEOP.

30 June 2022 vs. 30 June 2021

Current liabilities increased by EUR 8,304,000, or 581.1%, from A\$2,262,987 (EUR 1,429,000) as of 30 June 2021 to EUR 9,733,000 as of 30 June 2022, primarily due to an increase in development activity for the Zero Carbon Lithium™ Project, as well as an increase in lease liabilities and provisions.

30 June 2021 vs. 30 June 2020

Current liabilities increased by A\$2,041,065, or 919.7%, from A\$221,922 as of 30 June 2020 to A\$2,262,987 as of 30 June 2021, primarily due to an A\$1,904,792 increase in trade and other payables attributable to an increase in development activity for the Zero Carbon Lithium™ Project, as well as an increase in lease liabilities and provisions.

6.7.2.4 Non-current liabilities

31 December 2022 vs. 30 June 2022

Non-current liabilities increased by EUR 1,851,000, or 45.3%, from EUR 4,084,000 as of 30 June 2022 to EUR 5,935,000 as of 31 December 2022. This increase was primarily due to deferred income relating to research and development grants received.

30 June 2022 vs. 30 June 2021

Non-current liabilities increased by EUR 3,770,000, or 1200.6%, from A\$496,547 (EUR 314,000) as of 30 June 2021 to EUR 4,084,000 as of 30 June 2022, primarily due to leases undertaken for buildings and vehicles and a deferred tax liability arising from the acquisition of the Insheim Plant.

30 June 2021 vs. 30 June 2020

Vulcan Group did not have non-current liabilities in the financial year ended 30 June 2020. Non-current liabilities of A\$496,547 in the financial year ended 30 June 2021 related to lease liabilities for office space and vehicles.

6.7.2.5 Equity

31 December 2022 vs. 30 June 2022

Equity decreased by EUR 14,162,000, or 5.7%, from EUR 247,323,000 as of 30 June 2022 to EUR 233,161,000 as of 31 December 2022. This decrease was primarily due to accumulated losses during the period.

30 June 2022 vs. 30 June 2021

Equity increased by EUR 165,800,000, or 203%, from A\$128,984,547 (EUR 81,523,000) as of 30 June 2021 to EUR 247,323,000 as of 30 June 2022, primarily due to EUR 124 million equity fundraising in September 2021 and a EUR 50 million equity placement to Stellantis N.V..

30 June 2021 vs. 30 June 2020

Equity increased by A\$120,098,508, or 1,351.5%, from A\$8,886,039 as of 30 June 2020 to A\$128,984,547 as of 30 June 2021, primarily due to (combined) A\$120 million equity fundraising in

February and June 2021 together with increased share-based payment reserves, partially offset by higher accumulated losses.

6.8 Liquidity and financial resources

6.8.1 Overview

The development of the infrastructure needed for lithium extraction and renewable energy production is capital intensive. Securing and maintaining a strong cash position is important to Vulcan Group's business. The Company's principal source of funds has historically been cash generated from financing activities, primarily the issuance of share capital, as well as government and other grants. The Company expects that capital expenditures to fund the Zero Carbon Lithium™ Project will represent its most significant use of funds at least throughout the development of Phase One and, subject to the completion of a definitive feasibility study for Phase Two (expected during the course of 2023), of Phase Two. It will also need to pay interest on the debt components of any project debt financing. After the commencement of commercial production at the Zero Carbon Lithium™ Project, certain working capital requirements, operating costs, payments of interest and principal are expected to be higher during the development period, and incremental capital expenditures after the development period are anticipated to be the primary use of funds and are expected to be sourced primarily out of cash flow from operations. The Company had cash and cash equivalents of EUR 175.4 million as at 30 June 2022 (increased from EUR 72.5 million as at 30 June 2021) and cash and cash equivalents of EUR 134.1 million as at 31 December 2022. As at 31 March 2023, the Company had cash and cash equivalents of EUR 112 million.

6.8.2 Capital expenditure

Vulcan Group's capital expenditure was initially comprised primarily of expenditure relating to obtaining approvals and completing technical studies in connection with the Zero Carbon Lithium™ Project, consultant costs and costs related to piloting Vulcan Group's lithium extraction technology (see section "2.8.2 Capital expenditure"). More recently, capital expenditure has been related to the ordering of equipment and construction of a lithium extraction pilot plant ("**Pilot Plant**") and the LEOP, as well as to refurbishing Vulcan Group's in-house electric drill rigs. In the financial years ended 30 June 2020, 30 June 2021 and 30 June 2022 and the short financial year ended 31 December 2022, Vulcan Group's capital expenditure amounted to A\$1,209,224, A\$7,239,989 (EUR 4,572,000), EUR 67,926,000 and EUR 30,704,000 respectively, relating principally to the following:

- The A\$1,209,224 in capital expenditure (before impairments) in the financial year ended 30 June 2020 related to the acquisition and exploration expenditure on Vulcan Group's Zero Carbon Lithium™ Project and Norwegian licences. These capital expenditures were funded principally from capital raised in September 2019 and existing funds.
- The A\$7,239,989 (EUR 4,572,000) in capital expenditure (before impairments and depreciation) in the financial year ended 30 June 2021 related to the acquisition, exploration and property plant and equipment expenditure on Vulcan Group's Zero Carbon Lithium™ Project. These capital expenditures were funded principally from capital raised in June 2020 and February 2021 as well as the proceeds of the exercise of listed options.
- The EUR 67,926,000 in capital expenditure (before impairments and depreciation) in the financial year ended 30 June 2022 related to exploration and evaluation activities associated with the DFS and the acquisition of 3D seismic and drilling data and geological studies, commencement of construction of the LEOP, the acquisition of the Insheim Plant, the acquisition and refurbishment of two electric drill rigs and intangible assets (including goodwill, customer relationships and operating permit) associated with the acquisitions of Natürlich Insheim and VEE.
- The EUR 30,704,000 in capital expenditure (before impairments and depreciation) in the six-month short financial year ended 31 December 2022 related to construction of the LEOP, refurbishment of electric drill rigs, 3D seismic, DFS engineering and other exploration and plant and equipment costs.

Between 31 December 2022 and the date of this Prospectus, Vulcan Group incurred capital expenditures in the amount of approximately EUR 17.7 million, primarily comprising of exploration and property plant and equipment expenditure on Vulcan Group's Zero Carbon Lithium™ Project, including DFS engineering costs, 3D seismic costs, construction costs relating to the LEOP and the central LEOP and refurbishment of electric drill rigs.

Vulcan Group's capital expenditure is expected to increase substantially in future years as it progresses the development of the Zero Carbon Lithium™ Project towards commercial production. Vulcan Energy is currently intending to develop the project initially in two phases (see section "2.10 *References regarding mineral resources, ore reserves and production targets*" and the Competent Person Report for information about the Company's mineral resources, ore reserves and production targets (including forecast financial information based on production targets) included in this Prospectus):

- Phase One (targeted to commence commercial production at year-end 2025) is expected to require capital expenditure (not including financing costs) of approximately EUR 1,496 million (including contingencies), according to Vulcan Group's DFS. This estimate includes, among other capital expenditures, EUR 517 million for the development of two LEPs, EUR 322 million for the development of the CLP and EUR 657 million for the development of two geothermal plants (including associated drilling costs and piping infrastructure). While the DFS for Phase One envisions that Phase One would include the construction of two geothermal plants and two LEPs (in addition to the CLP), Vulcan Group is currently pursuing a number of value improvements during the ongoing bridging engineering work with Hatch Ltd with the goal of consolidating these into one geothermal plant and one LEP (in addition to the CLP) while targeting the same level of production as envisioned in the DFS.
- On the basis that the implementation of Phase Two is targeted to achieve similar production levels as, and in addition to those of, Phase One, the Company currently anticipates a materially similar additional amount to be required for Phase Two, subject to the completion of a definitive feasibility study for Phase Two (expected during the course of 2023). However, as no definitive feasibility study has been completed for Phase Two yet, there remains additional uncertainty relating to the targeted production levels for Phase Two and the financial information derived from such production levels, at this stage. Further evaluation work and appropriate studies are required to establish whether this target will be met. Vulcan Group also notes that investors should not rely on the results of the PFS as the Company considers that the material assumptions underpinning that study to be no longer correct in light of the additional studies undertaken in preparing the DFS for Phase One and developments since the PFS was published (including inflation in relation to certain costs as a result of supply chain disruptions and increased commodity costs, as well as an expansion of the project scope and refinements to the development plan, such as an increase in the number of well sites and additional infrastructure including pipelines and gas systems).

The exact level of capital expenditure required for the Zero Carbon Lithium™ Project will be further refined as the Company advances the project.

Vulcan Group intends to plan further phases across Vulcan Group's licence area, as Vulcan Group plans to grow production in a staged, modular fashion.

Substantially all of the capital expenditure related to the Zero Carbon Lithium™ Project will be incurred in Europe, principally Germany.

The Company expects to finance the Zero Carbon Lithium™ Project through a combination of green financing and, potentially, syndicated senior debt, hybrid debt, equity investment from third parties at the level of project-related special purpose vehicles (project level) and/or further equity fundraising in the capital markets at the parent level (if needed). The Company may also consider the bond market once in production, in view of the generally increasing market demand observed in the recent past for bonds that meet ESG criteria and the availability of longer term yields in the bond market as compared to other forms of debt. Vulcan Group is targeting to fund approximately 65% of the Phase One capital expenditure requirements through debt financing and to fund the balance through equity funding (including at the project level). The exact amount of capital expenditure anticipated to be required in connection with the Zero Carbon Lithium™ Project, and Vulcan Group's funding plan with respect thereto, will be further refined in the definitive feasibility study for Phase Two (expected to be completed during the course of 2023). See section "6.2.7 *Vulcan Group's financing arrangements*" above (Vulcan Group's financing arrangements) for a further discussion of Vulcan Group's anticipated financing arrangements.

Vulcan Group has also been the beneficiary of support from InnoEnergy and of other government grants, and is further engaging with the relevant bodies in Germany and the EU regarding the possibility of securing further grants and support, including under the Temporary Crisis and Transition Frameworks (TCTF) programme and the Federal Funding for efficient Heat Networks (BEW) programme by the Federal Ministry for Economic Affairs and Climate Action (BMWK) in Germany and under the Green Deal Industrial Plan and the European Critical Raw Material Act in the European Union.

As of the date of this Prospectus, Vulcan Group has entered into commitments for ongoing capital expenditures in an aggregate amount of approximately EUR 33 million, which will be primarily invested in Germany. The Company plans to finance these ongoing capital expenditures from existing cash balances.

6.8.3 Borrowings

Vulcan Group has not incurred any material indebtedness to date. Going forward, the Company expects to incur substantial indebtedness in connection with the financing of the Zero Carbon Lithium™ Project, including to fund a significant portion of the capital expenditure requirements described in section "6.8.2 Capital expenditure" above. However, the actual amount of debt incurred will depend upon actual capital expenditure requirements, the availability of suitable debt financing and the market terms available in the debt capital markets at the time Vulcan Group seeks this financing, as compared with other sources of financing. For more information, see section "6.2.7 Vulcan Group's financing arrangements" above.

6.8.4 Cash flows

The following table shows selected information from the Company's consolidated statement of cash flows for the short financial year ended 31 December 2022 and the financial years ended 30 June 2022, 2021 and 2020. In respect of the cash flows of the Company for the financial year ended 30 June 2021, in order to aid comparison across periods, the information has been presented in both Australian dollars (being Vulcan Group's presentational currency through the financial year ended 30 June 2021) and euro (being Vulcan Group's presentational currency with effect from the current financial year ending 30 June 2022), with the Australian dollar information being translated into euro using the average daily exchange rate during the period, being A\$ 1/ EUR 0.6260. The information presented in Australian dollars has been extracted from the consolidated statements of cash flows of the Company for the financial years ended 30 June 2021 and 30 June 2020 and the information presented in euro has been extracted from the consolidated statements of cash flows of the Company for the financial periods ended 31 December 2022 and 30 June 2022.

	Short financial year ended 31 December		Financial year ended 30 June	
	2022 EUR (audited)	2022 EUR (audited)	2021 A\$ (audited)	2020 A\$ (audited)
Cash flows from operating activities				
Receipts from customers	3,496,000	3,799,000	-	-
Payments to suppliers and employees	(12,941,000)	(15,400,000)	(3,446,209)	(1,427,391)
Interest received	468,000	228,000	100,937	45,342
Other income	1,798,000	317,000	510,879	50,000
Interest paid	(239,000)	(291,000)	(6,752)	-
Net cash used in operating activities	(7,418,000)	(11,347,000)	(2,841,145)	(1,332,049)
Cash flows from investing activities				
Payments for exploration and evaluation costs	(10,429,000)	(9,384,000)	(5,832,409)	(1,205,783)
Cash acquired upon acquisition of subsidiary	-	1,230,000	-	404
Payments for software	-	-	-	(13,353)
Payment for plant and equipment	(20,094,000)	(22,793,000)	(1,312,818)	-
Payment to acquire subsidiary	-	(32,685,000)	-	-

	Short financial year ended 31 December		Financial year ended 30 June	
	2022 EUR (audited)	2022 EUR (audited)	2021 A\$ (audited)	2020 A\$ (audited)
Payments to acquire financial assets	(1,245,000)	(30,008,000)	-	-
Proceeds from disposal of financial assets	-	29,282,000	-	-
Net cash used in investing activities	(31,768,000)	(64,358,000)	(7,145,227)	(1,218,732)
Cash flows from financing activities				
Proceeds from exercise of listed and unlisted options	-	-	4,430,809	-
Proceeds from issued shares	-	176,208,000	120,000,000	5,976,310
Share issue costs	-	(4,378,000)	(6,139,997)	(330,545)
Lease repayments	(462,000)	(185,000)	(22,888)	-
Repayment of loan to Associate	-	409,000	-	-
Net cash used in / from financing activities	(462,000)	172,054,000	118,267,924	5,645,765
Net increase / (decrease) in cash and cash equivalents	(39,648,000)	96,349,000	108,281,552	3,094,984
Cash and cash equivalents at the beginning of the period/year	175,416,000	72,494,000	6,421,557	3,348,996
Effect of exchange rate fluctuations on cash held	(1,661,000)	6,573,000	2,756	(22,423)
Cash and cash equivalents at the end of the period/year	134,107,000	175,416,000	114,705,865	6,421,557

6.8.5 Comparison of the figures reported in the consolidated statements of cash flows for the short financial year ended 31 December 2022 and the financial years ended 30 June 2022, 2021 and 2020

6.8.5.1 Net cash used in operating activities

SYF2022

Net cash used in operating activities was EUR 7,418,000 in the short financial year ended 31 December 2022. This was primarily attributable to additional operation costs associated with the growth of Vulcan Group's operations in Germany as a result of the ramp-up of the Zero Carbon Lithium™ Project, including the operation of the Insheim Plant and related employee expenses. This outflow was partially offset by revenue generated by the Insheim Plant as well as interest earned on Vulcan Group's cash balances and research and development grants.

FY2022 vs. FY2021

Net cash used in operating activities increased from A\$2,841,145 (EUR 1,778,000) in the financial year ended 30 June 2021 to EUR 11,347,000 in the financial year ended 30 June 2022, primarily due to additional operation costs associated with the growth of Vulcan Group's operations in Germany as a result of the ramp-up of the Zero Carbon Lithium™ Project, particularly additional employees hired in connection with this ramp-up and employees acquired in the acquisitions of Natürlich Insheim, VEE and VESS. The increase in outflow was partially offset by revenue generated by the Insheim Plant, VEE and VESS.

FY2021 vs. FY2020

Net cash used in operating activities increased from A\$1,332,049 in the financial year ended 30 June 2020 to A\$2,841,145 in the financial year ended 30 June 2021, primarily due to increased payments

to suppliers and employees following the acquisition of the Zero Carbon Lithium™ Project and the ramp-up of development activities (including a ramp-up in Vulcan Group's employee headcount). This increase was partially offset by A\$510,879 of other income.

6.8.5.2 Net cash used in investing activities

SFY2022

Net cash used in investing activities was EUR 31,768,000 in the short financial year ended 31 December 2022. This was primarily attributable to the continued development of the Zero Carbon Lithium™ Project during the period, including construction of the LEOP, refurbishment of electric drill rigs, 3D seismic and DFS engineering costs.

FY2022 vs. FY2021

Net cash used in investing activities increased from A\$7,145,227 (EUR 4,473,000) in the financial year ended 30 June 2021 to EUR 64,358,000 in the financial year ended 30 June 2022. This increase reflects the significant ramp-up in the development of the Zero Carbon Lithium™ Project during the financial year ended 30 June 2022, and includes the costs of acquiring and investing in Natürlich Insheim (EUR 32.7 million), the costs of acquisition (EUR 7.1 million) and refurbishment (EUR 3.0 million) of two electric drill rigs, the acquisition of 3D seismic and drilling data and other exploration activities including work done on the DFS (EUR 9.4 million) and construction costs related to the LEOP (EUR 10.8 million). As part of its cash management in the financial year ended 30 June 2022, Vulcan Group also invested some of its cash balances in liquid financial investments (primarily bonds), which were liquidated within the financial year at a small loss (with proceeds from disposal of EUR 29.3 million, compared to payments of EUR 30.0 million for the acquisition of these financial assets).

FY2021 vs. FY2020

Net cash used in investing activities increased from A\$1,218,732 in the financial year ended 30 June 2020 to A\$7,145,227 in the financial year ended 30 June 2021, primarily due to increases in exploration and evaluation costs in connection with the ramp-up of the Zero Carbon Lithium™ Project, as well as payments for plant and equipment.

6.8.5.3 Net cash from financing activities

SFY2022

Net cash from financing activities was an outflow of EUR 462,000 in the short financial year ended 31 December 2022. This was primarily attributable to lease repayments. Vulcan Group did not issue any shares or engage in any other financing activities during the period.

FY2022 vs. FY2021

Net cash from financing activities increased from A\$118,267,924 (EUR 74,035,000) in the financial year ended 30 June 2021 to EUR 172,054,000 in the financial year ended 30 June 2022, primarily arising from a EUR 124 million underwritten share placement in September 2021 (accompanied by a share purchase plan allowing existing shareholders to invest at the same price as in the share placement, raising EUR 2 million) and the EUR 50 million equity placement to Stellantis N.V. in June 2022.

FY2021 vs. FY2020

Net cash from financing activities increased from A\$5,645,765 in the financial year ended 30 June 2020 to A\$118,267,924 in the financial year ended 30 June 2021, primarily arising from the proceeds of fresh issues of shares and the exercise of listed and unlisted options, partially offset by share issue costs.

6.8.6 Cash flows in the three-month period ended 31 March 2023

On 28 April 2023, the Company published unaudited quarterly cash flow information for the three-month period ended 31 March 2023 in accordance with ASX requirements. In the three-month period ended 31 March 2023, the Company's net cash used in operating activities was EUR 4.2 million, its net cash used in investing activities was EUR 16.8 million and its net cash used in financing

activities was EUR 0.1 million. The net effect, together with negative 1.0 million foreign exchange movement in cash held resulted in a decrease of EUR 22.1 million in cash and cash equivalents, with cash and cash equivalents as at 31 March 2023 being EUR 112.0 million. Cash outlays in this period were principally attributable to additional operation costs and investments in relation to the development of the Zero Carbon Lithium™ Project, with the Company deploying a portion of its cash position toward certain initial Phase One capital expenditure items, such as site preparation for production, re-injection well sites as well as construction expenses in relation to the Company's LEOP and central lithium electrolysis optimisation plant as they approach mechanical completion, maintaining project momentum while it continues to advance its broader Phase One financing plans.

6.8.7 Financial liabilities

Financial liabilities mainly include trade payables, lease liabilities and payables to taxation authorities for VAT.

As of 31 December 2022, financial liabilities had the following maturities based on the contractually agreed amounts.

As of 31 December 2022	Up to 1 year (audited)	1 to 5 years (audited)	More than 5 years (audited)	Total (audited)
	(in EUR thousand)			
Trade payables	6,479	-	-	6,479
Other financial liabilities	2,939	-	-	2,939
Lease liabilities.....	646	1,801	869	3,316
Financial liabilities	10,044	1,801	869	12,734

6.8.8 Contingent liabilities and other financial obligations

There were no contingent liabilities as at 31 December 2022. Vulcan Group had approximately EUR 32 million in capital commitments at 31 December 2022.

6.8.9 Off-balance sheet arrangements

Vulcan Group has no off-balance sheet arrangements.

6.9 Qualitative and quantitative disclosure on market risks

For a description of Vulcan Group's management of foreign exchange risk, interest rate risk, credit risk and liquidity risk, see Note 15 of the Consolidated Annual Financial Statements 2020, Note 18 of the Consolidated Annual Financial Statements 2021, Note 27 of the Consolidated Annual Financial Statements 2022 and Note 27 of the Consolidated Short Financial Year Financial Statements 2022.

6.10 Key accounting and valuation principles involving estimates or judgements

For a description of Vulcan Group's critical accounting judgements and key sources of estimation uncertainty, see Note 2 of each of the Consolidated Financial Statements.

7. PRO FORMA FINANCIAL INFORMATION

7.1 Introduction

The Company is a company domiciled in Perth, Western Australia. As of 31 December 2022, the Company had 12 direct and indirect subsidiaries with 100% ownership interest in Vulcan Energy Resources Europe Pty Ltd, Perth, Western Australia, Vulcan Energy Italy Pty Ltd, Perth, Western Australia, Vulcan Energie Ressourcen GmbH, Karlsruhe, Germany, Vulcan Energie France SAS, Haguenau, France, Vulcan Energy Engineering GmbH, Augsburg, Germany, Vulcan Energy Subsurface Solutions, Karlsruhe, Germany, Vercana GmbH, Karlsruhe, Germany, Vulcan Geothermal Holding GmbH, Karlsruhe, Germany, VER GEO LIO GmbH, Karlsruhe, Germany, Natürlich Insheim GmbH, Insheim, Germany, Natürlich Geschäftsführungs Südpfalz GmbH, Karlsruhe, Germany and Vulcan Projektgesellschaft 1 GmbH, Karlsruhe, Germany.

In January 2023, Vulcan Energie Ressourcen GmbH ("**Vulcan Energie**") and the previous shareholder of Comeback Personaldienstleistungen GmbH ("**Comeback**") entered into an agreement concerning the acquisition of all shares in Comeback by Vulcan Energie. The signing of the Share Purchase Agreement took place on 4 January 2023 which was followed by the completion of the acquisition of all shares of Comeback on 31 January 2023. The acquisition of Comeback is hereinafter referred to as the "**Acquisition**".

In exchange for the acquisition of all shares of Comeback, an upfront cash consideration of EUR 150 thousand was paid by Vulcan Energie. Additionally, the Company agreed to issue Performance Rights via a capital increase to Mr Sven Schlüter, the previous sole shareholder of Comeback, subject to the satisfaction of certain milestones. The issue of Performance Rights is based on two milestone achievements with a fixed value of EUR 100 thousand each. The milestone agreement was classified as contingent consideration and valued at an amount of EUR 128 thousand by considering the respective probability of success for each of the two milestones. Therefore, the preliminary purchase price for the acquisition of all shares of Comeback amounts to EUR 278 thousand.

The Company expects the Acquisition to have a material impact on the revenues of the continuing operations of the Company. Therefore, the Company has prepared the following pro forma financial information ("**Pro Forma Financial Information**"), comprising a pro forma statement of financial position as of 31 December 2022 ("**Pro Forma Statement of Financial Position**") as well as a pro forma statement of profit or loss for the period from 1 July 2022 to 31 December 2022 ("**Pro Forma Statement of Profit or Loss**") as well as accompanying pro forma notes ("**Pro Forma Notes**").

The purpose of the Pro Forma Financial Information is to show the material effects that the Acquisition would have had on the consolidated statement of profit or loss of Vulcan Group as if the Acquisition had taken place on 1 July 2022 and the statement of financial position of Vulcan Group as if the Acquisition were in effect as of 31 December 2022.

The Pro Forma Financial Information is for illustrative purposes only and is based on assumptions and bears uncertainties and therefore does not represent the actual performance of the financial development of the Company. Thus, the Pro Forma Financial Information describes only a hypothetical situation and therefore the presentation does not reflect what the actual net assets, financial position and results of operations of the Company would have been had the Acquisition occurred on the dates assumed, nor is it necessarily indicative of the Company's future net assets, financial positions and results of operations after the Acquisition have been completed. In addition, the Pro Forma Financial Information should not be considered as an indicator of the future performance of the financial position of the Company and the results of its operations and its cash flows after completion the Acquisition.

The Pro Forma Financial Information should only be read in conjunction with the Consolidated Short Financial Year Financial Statements 2022.

The Pro Forma Financial Information was prepared by the Company on 28 March 2023.

7.2 Historical financial information

The Pro Forma Financial Information as of 31 December 2022 was prepared based on the following historical information:

- The Consolidated Short Financial Year Financial Statements 2022, prepared in accordance with Australian Accounting Standards and Interpretations issued by the AASB and the

Australian Corporations Act. The Consolidated Short Financial Year Financial Statements 2022 comply with IASB IFRS.

- The unaudited and unpublished statements of financial position of Comeback as of 31 December 2022, prepared solely for the purpose of inclusion in the Pro Forma Financial Information using the same recognition and measurement principles as applied in the Consolidated Short Financial Year Financial Statements 2022.
- The unaudited and unpublished statements of profit or loss of Comeback for the period from 1 July 2022 to 31 December 2022, prepared solely for the purpose of inclusion in the Pro Forma Financial Information using the same recognition and measurement principles as applied in the Consolidated Short Financial Year Financial Statements 2022.

Comeback has not prepared financial statements in accordance with EU or IASB IFRS before. The statement of financial position as of 31 December 2022 and the statement of profit or loss for the period from 1 July 2022 to 31 December 2022 were prepared on the basis of EU IFRS and the accounting policies consistently applied by the Company and solely for the purpose of inclusion in the accompanying Pro Forma Financial Information. Therefore, no accounting policy alignment adjustments were required for the preparation of the Pro Forma Financial Information.

7.3 Basis of preparation

7.3.1 Preparation principles

The Pro Forma Financial Information was prepared on the basis of the IDW Accounting Practice Statement: Preparation of Pro Forma Financial Information (IDW AcPS AAB 1.004) (*IDW Rechnungslegungshinweis: Erstellung von Pro-Forma-Finanzinformationen (IDW RH HFA 1.004)*), as promulgated by the Institute of Public Auditors in Germany (*Institut der Wirtschaftsprüfer in Deutschland e.V. – IDW*) and in accordance with the ESMA Guidance on disclosure requirements under the Prospectus Regulations issued on 4 March 2021.

The Pro Forma Financial Information has been prepared consistently in all material aspects on the basis of EU IFRS and the accounting policies of the Company, as described in the notes to the Consolidated Short Financial Year Financial Statements 2022, unless otherwise stated.

The pro forma assumptions and pro forma adjustments, based on such assumptions, have been prepared as described below.

The pro forma adjustments made for purposes of the Pro Forma Financial Information are based on information available at the time of the preparation. No adjustments have been made for measures that may be taken after the completion of the acquisition of Comeback; the Pro Forma Financial Information does not include any costs that Vulcan Group expects to incur in connection with the Acquisition, nor any cost savings or synergies that may result from the combination of the businesses of Vulcan Group and Comeback, respectively, nor the costs necessary to achieve these cost savings and other synergies. As a result, the actual amounts which will be reported in the Consolidated Short Financial Year Financial Statements 2022 will differ from the amounts in the Pro Forma Financial Information, and these differences may be material.

In the context of the acquisition of Comeback a preliminary purchase price allocation was prepared. This purchase price allocation is preliminary and therefore still subject to uncertainty. It reflects the current state of knowledge and is the Company's best estimate as of the reporting date. Furthermore, the Company and the acquired entity are in the process of establishing a reporting framework to allow the exchange of full financial information. The presented financial information as well as the presented preliminary purchase price allocation may be adjusted following the establishment of the reporting framework. These adjustments may be substantial. Furthermore, the acquisition of all shares of Comeback was completed as of 31 January 2023. For the preliminary purchase price allocation of Comeback an IFRS opening balance sheet as of 31 December 2022 was applied. The adjustments of the preliminary purchase price allocation including an IFRS opening balance sheet as of the acquisition date are expected not to be material.

The Pro Forma Financial Information is presented in euro. There was no currency translation to be carried out for the Consolidated Short Financial Year Financial Statements 2022 of the Company, as it has the euro as the functional currency. The acquired entity Comeback has the euro as the functional currency as well, as it is based in Germany. Amounts in the Pro Forma Financial

Information are stated in EUR thousands. The figures presented in the tables of the Pro Forma Financial Information were rounded according to established commercial principles and may not add up to sums presented. Parentheses around any figures in the tables indicate negative values. A dash ("—") signifies that there is no relevant figure, while a zero ("0") signifies that the relevant figure is available but has been rounded to or equals zero.

7.3.2 Pro forma assumptions

The following pro forma assumptions were used for the preparation of the Pro Forma Financial Information as of 31 December 2022:

- The Pro Forma Statement of Profit or Loss for the 6-month period from 1 July 2022 to 31 December 2022 shows the effects of the acquired entity Comeback as if the acquisition had been completed on 1 July 2022.
- The Pro Forma Statement of Financial Position as of 31 December 2022 shows effects of the acquired entity Comeback as if the acquisition had been completed on 31 December 2022.

7.3.3 Purchase Price Allocation

IFRS 3 generally requires all assets, liabilities and contingent liabilities to be measured at fair value at the time of acquisition.

For the purpose of the Pro Forma Financial Information as of 31 December 2022, the purchase price allocation of the acquisition of Comeback was performed on the basis of a preliminary valuation of the acquired net assets at fair value as of 31 December 2022. The preliminary purchase price allocation of the acquisition of Comeback which will be applied for the Pro Forma Statement of Financial Position as of 31 December 2022 will include an IFRS opening balance sheet as of 31 December 2022.

The income statement effects from the development of the preliminary purchase price allocations were taken into account in the Pro Forma Statement of Profit or Loss for the period from 1 July 2022 to 31 December 2022 as if the Acquisition had been completed on 1 July 2022.

These purchase price allocations are based on the most current available information using certain estimates and assumptions in order to assess the fair value of the assets acquired and liabilities assumed. For Comeback, fair value adjustments on customer relationships were indicated in the preliminary purchase price allocation. These fair value step ups are to be amortized over a weighted average period of eight years. The amortization will be expensed in the Pro Forma Statement of Profit or Loss for the period from 1 July 2022 to 31 December 2022.

Considering the pro forma assumptions described in this section of the Prospectus, the preliminary total consideration for Comeback amounted to EUR 278 thousand. Compared with the pro forma net fair value amount of identifiable assets acquired, including cash and cash equivalents acquired, and liabilities assumed amounting to EUR 296 thousand, the acquisition results in a pro forma bargain purchase of EUR 18 thousand.

Considering the measurement period, which shall not exceed one year from the acquisition date, the final purchase price allocation and the bargain purchase resulting from the Acquisition may differ significantly from the preliminary purchase price allocation performed for the purposes of the Pro Forma Financial Information.

7.4 Pro Forma Financial Information as of 31 December 2022

7.4.1 Pro Forma Statement of Financial Position as of 31 December 2022

	Historical financial information					
	Vulcan Energy Resources Limited (audited)	Acquisition of Comeback Personal-dienstleistungen GmbH (unaudited)	Subtotal	Pro Forma Adjustments	Pro Forma Notes (column C)	Pro Forma Financial Information
31 December 2022	EUR thousand	EUR thousand	EUR thousand	EUR thousand		EUR thousand
Assets						
Current assets						
Cash and cash equivalents	134,107	88	134,195	(150)	A1	134,045
Trade and other receivables	6,316	456	6,772	(102)	A2	6,670
Contract assets	42	-	42	-		42
Inventories	155	-	155	-		155
Total current assets	140,620	544	141,164	(252)		140,912
Non-current assets						
Investments accounted for using equity method	974	-	974	-		974
Other Investments	-	-	-	-	A3	0
Exploration and evaluation expenditure	30,135	-	30,135	-		30,135
Property, plant and equipment	70,280	24	70,304	6	A4	70,310
Right-of-use	3,377	33	3,410	-		3,410
Intangible assets	3,068	-	3,068	387	A5	3,455
Deferred tax assets	1,681	10	1,691	18	A6	1,709
Total non-current assets	109,515	67	109,582	411		109,993
Total Assets	250,135	611	250,746	159		250,905
Liabilities						
Current liabilities						
Trade and other payables	9,418	452	9,870	20	A7	9,890
Lease liabilities	646	7	653	-		653
Loans and borrowings	-	11	11	-		11
Income tax liabilities	91	20	111	-		111
Deferred income	132	-	132	-	-	132
Provisions	752	-	752	-		752
Total current liabilities	11,039	490	11,529	20		11,549
Non-current liabilities						
Trade and other payables	-	-	-	56	A8	56
Lease liabilities	2,670	25	2,695	-		2,695
Loans and borrowings	-	72	72	-		72
Provisions	110	-	110	-		110
Deferred income	1,453	-	1,453	-		1,453
Deferred tax liabilities	1,702	-	1,702	115	A5	1,817
Total non-current liabilities	5,935	97	6,032	171		6,203
Total liabilities	16,974	587	17,561	191		17,752
Net Assets	233,161	24	233,185	(32)		233,153

Equity

Share capital	259,158	25	259,183	(25)	A9	259,158
Reserves	15,875	(15)	15,860	15	A10	15,875
Accumulated losses	(41,872)	14	(41,858)	(22)	A11	(42,880)
Total Equity	233,161	24	233,185	(32)		233,153

7.4.2 Pro Forma Statement of Profit or Loss for the period from 1 July 2022 to 31 December 2022

	Vulcan Energy Resources Limited (audited)	Acquisition of Comeback Personal- dienstleis-tungen GmbH (unaudited)	Subtotal	Pro Forma Adjustments	Pro Forma Notes (column C)	Pro Forma Financial Information
	EUR thousand	EUR thousand	EUR thousand	EUR thousand		EUR thousand
1 July 2022 to 31 December 2022						
Revenue from continuing operations	3,622	2,275	5,897	(425)	B1	5,472
Other income	213	51	264	18	B2	282
Finance income	615	-	615	-		615
Gain on deconsolidation	-	-	-	-		-
Loss from equity accounted investments	(249)	-	(249)	-		(249)
Other own work capitalised	3,489	(191)	3,298	55	B3	3,353
Raw materials and purchased services	(3,119)	-	(3,119)	325	B4	(2,794)
Finance cost	(177)	-	(177)	-		(177)
Administrative expenses	(2,127)	(301)	(2,428)	-		(2,428)
Compliance and regulatory expenses	(304)	-	(304)	-		(304)
Consulting and legal fees	(1,362)	-	(1,362)	-		(1,362)
Depreciation and amortisation expenses	(2,299)	(16)	(2,315)	(24)	B5	(2,339)
Employee benefit expenses	(8,097)	(1,740)	(9,837)	-		(9,837)
Investor relations expenses	(231)	-	(231)	-		(231)
Impairment expenses	-	(6)	(6)	-		(6)
Loss on disposal of financial assets	-	-	-	-		-
Occupancy costs	(1,265)	(1)	(1,266)	-		(1,266)
Share-based payments expense	(711)	-	(711)	-		(711)
Other expenses	(1,446)	(64)	(1,510)	-		(1,510)
Foreign currency (loss)/gain	(105)	-	(105)	-		(105)
Loss before income tax expense	(13,553)	7	(13,546)	(51)		(13,597)
Income tax benefit/(expense)	103	2	105	15	B6	120
Loss after income tax for the period	(13,450)	9	(13,441)	(36)		(13,477)
Other comprehensive income						
<i>Items that may be reclassified subsequently to profit or loss</i>						
Exchange differences on translation of foreign operations	(1,648)	-	(1,648)	-		(1,648)
Total comprehensive loss for the period (net of tax)	(15,098)	9	(15,089)	(36)		(15,125)
Total comprehensive loss for the period attributable to the owners of Vulcan Energy Resources Limited	(15,098)	9	(15,089)	(36)		(15,125)

7.4.3 Explanation of the Pro Forma adjustments to the Pro Forma Statement of Financial Position as of 31 December 2022 and the Pro Forma Statement of Profit or Loss for the period from 1 July 2022 to 31 December 2022

In the following Pro Forma Notes, the pro forma adjustments in column C are explained in detail in order to illustrate the effects on the Pro Forma Statement of Financial Position as of 31 December 2022 and the Pro Forma Statement of Profit or Loss for the period from 1 July 2022 to 31 December 2022.

(A) Pro Forma Adjustments A: Statement of Financial Position

For the purposes of the Pro Forma Statement of Financial Position it has been assumed that the acquisition of Comeback has been completed as of 31 December 2022.

Adjustments contained in column C of the Pro Forma Statement of Financial Position as of 31 December 2022 are as follows:

- **A1:** Cash and cash equivalents were adjusted by EUR 150 thousand for the consideration transferred for Comeback.
- **A2:** Trade and other receivables were adjusted in total by EUR (102) thousand due to the following:
 - The elimination of intercompany transactions between Comeback and Vulcan Energie resulted in an elimination of intercompany receivables of EUR (90) thousand. Trade and other payables (current) were adjusted by the same amount.
 - The elimination of intercompany transactions between Comeback and Vercana GmbH resulted in an elimination of intercompany receivables of EUR (22) thousand. Trade and other payables (current) were adjusted by the same amount.
 - The issue of performance rights of the Company used as consideration paid by the legal acquirer - Vulcan Energie - resulted in intercompany transactions, which need to be eliminated in the preparation of the Pro Forma Financial Information of the Company. Therefore, the first step was to adjust trade and other receivables by EUR 128 thousand to recognize an intercompany receivable of the Company to Vulcan Energie. The second step was to eliminate this intercompany receivable in the same amount (EUR (128) thousand).
 - The recognition of tax receivables in the amount of EUR 10 thousand due to provided services by Comeback to Vulcan Energie and Vercana GmbH. In a first step, these provided services were recognized on side of the company (refer to A4, A6, A7 and A11). In a second step, the provided services from Comeback were eliminated in the course of the elimination of intercompany transactions (refer to A7).
- **A3:** Other investments were adjusted in total by EUR 0 thousand due to the following:
 - EUR 278 thousand in the course of the recognition of the acquired entity Comeback, whereof EUR 150 thousand was paid via cash (refer to A1) and EUR 128 thousand via issuing performance rights of the Company (refer to A2, A7 and A8).
 - EUR (278) thousand due to the capital consolidation resulting in the derecognition of the investment in Comeback.
- **A4:** Property, plant and equipment was adjusted in total by EUR 6 thousand due to the following:
 - The elimination of the margin of provided services from Comeback to Vercana GmbH in the amount of EUR (1) thousand. The provided margin of the service was capitalized within Vercana GmbH and correspondingly eliminated as classified intercompany transactions. Accumulated losses were adjusted by the same amount (refer to A11).
 - The capitalization of provided services by Comeback to Vercana GmbH in the amount of EUR 7 thousand (refer to A2, A6, A7 and A11).

- **A5:** Intangible assets were adjusted by EUR 387 thousand due to the identification of intangible assets in the course of the preliminary purchase price allocation. Additionally, based on Comeback's applicable tax rate, deferred tax liabilities were adjusted by EUR 115 thousand.
- **A6:** Deferred tax assets were adjusted by EUR 18 thousand due to the recognition of provided services by Comeback to Vulcan Energie and Vercana GmbH (refer to A2, A4, A7 and A11).
- **A7:** Trade and other payables (current) were adjusted by EUR 20 thousand due to the preliminary purchase allocation of Comeback where a portion of the acquisition costs were classified as contingent consideration and recognized as financial liability in the amount of EUR 72 thousand (refer to A2, A3 and A8). Additionally, EUR 60 thousand is due to the recognition of provided services by Comeback to Vulcan Energie and Vercana GmbH (refer to A2, A4, A6 and A11). The remaining amount is due to the elimination of intercompany transactions in the amount of EUR (112) thousand.
- **A8:** Trade and other payables (non-current) were adjusted by EUR 56 thousand due to the preliminary purchase allocation of Comeback where a portion of the acquisition costs were classified as contingent consideration and recognized as financial liability (refer to A2 and, A3 and A7).
- **A9:** Share capital was adjusted in total by EUR (25) thousand due to the capital consolidation of Comeback.
- **A10:** Reserves were adjusted in total by EUR 15 thousand due to the capital consolidation of Comeback.
- **A11:** Accumulated losses were adjusted in total by EUR (22) thousand due to the following:
 - EUR (14) thousand due to the capital consolidation of Comeback.
 - EUR (1) thousand due to the elimination of the margin of provided services from Comeback to Vercana GmbH (refer to A4).
 - EUR (43) thousand due to provided services by Comeback to Vulcan Energie and Vercana GmbH as well as the corresponding impact on recognized deferred tax income in the amount of EUR 18 thousand (refer to A2, A4, A6 and A7).
 - EUR 18 thousand due to a gain from a bargain purchase resulted in the course of the acquisition of Comeback acquired through Vulcan Energie.

(B) Pro Forma Adjustments B: Statement of Profit or Loss

For the purposes of the Pro Forma Statement of Profit or Loss it has been assumed that the acquisition of Comeback has been completed as of 1 July 2022.

Adjustments contained in the column C of the Pro Forma Statement of Profit or Loss for the period from 1 July 2022 to 31 December 2022 are as follows:

- **B1:** Revenue from continuing operations were adjusted by EUR (425) thousand due to the elimination of provided services from Comeback to Vulcan Energie and Vercana GmbH. Comeback provided services in the amount of EUR (286) thousand to Vulcan Energie and services in the amount of EUR (139) thousand to Vercana GmbH.
- **B2:** Other income was adjusted by EUR 18 thousand due to a gain from a bargain purchase resulted in the course of the acquisition of Comeback acquired through Vulcan Energie.
- **B3:** Other own work capitalised were adjusted by EUR 55 thousand in the course of the intercompany revenue elimination for provided services from Comeback to Vercana GmbH (refer to B1).
- **B4:** Raw materials and purchased services were adjusted in total by EUR 325 thousand due to the intercompany revenue elimination for provided services from Comeback to Vulcan

Energie and Vercana GmbH in the amount of EUR 368 thousand (refer to B1). The remaining amount is due to the recognition of provided services by Comeback to Vulcan Energie and Vercana GmbH in the amount of EUR (43) thousand.

- **B5:** Depreciation and amortisation expenses was adjusted by EUR (24) thousand related to the subsequent measurement of the identified intangible assets from the preliminary purchase price allocation and corresponding impact on recognized deferred tax liabilities in the amount of EUR 7 thousand (refer to B5).
- **B6:** Income tax benefit /(expense) were adjusted by EUR 15 thousand which resulted from the subsequent measurement of the preliminary identified intangible assets in the amount of EUR 7 thousand (refer to B5) as well as deferred tax income resulted from the recognized provided services by Comeback to Vulcan Energie and Vercana GmbH in the amount of EUR 13 thousand (refer to B4). The remaining deferred tax expense in the amount of EUR (5) thousand is due to the related tax effect of a gain from a bargain purchase which was recognized in profit or loss (refer to B2).

7.5 Auditor's Report to the Pro Forma Financial Information

To Vulcan Energy Resources Limited, Perth/Australia

We have audited whether the pro forma financial information for the periods from 1 July 2022 to 31 December 2022 of Vulcan Energy Resources Limited (the "**Company**") has been properly compiled on the basis stated in the pro forma notes and whether this basis is consistent with the accounting policies of the Company. The pro forma financial information comprises a pro forma statement of income for the period from 1 July 2022 to 31 December 2022, a pro forma balance sheet as of 31 December 2022 as well as pro forma notes.

The purpose of the pro forma financial information is to present the material effects the transactions described in the pro forma notes would have had on the historical financial statements if the group had existed in the structure created by the transaction throughout the entire reporting period of the pro forma statement of income or as at the pro forma balance sheet date would have existed in the structure created by the transaction. As pro forma financial information reflects a hypothetical situation, it is not entirely consistent with the presentation that would have resulted had the relevant events actually occurred at the beginning of the reporting period of the pro forma statement of income or at the pro forma balance sheet date. Therefore, we do not issue an opinion on the actual effects of the transaction described in the pro forma notes.

The compilation of pro forma financial information in accordance with the principles of the IDW Accounting Practice Statement: Preparation of Pro Forma Financial Information (IDW AcPS AAB 1.004) promulgated by the *Institut der Wirtschaftsprüfer in Deutschland e.V.* (IDW) is the responsibility of the management of the Company.

Our responsibility is to express an opinion, based on our audit, whether the pro forma financial information has been properly compiled on the basis stated in the pro forma notes and whether this basis is consistent with the accounting policies of the Company. This includes the evaluation of the overall presentation of the pro forma financial information. The subject matter of this engagement does neither include an audit or review of the basic figures including their adjustment to the accounting policies of the Company, nor of the pro forma assumptions stated in the pro forma notes.

We have planned and performed our audit in accordance with the IDW Auditing Practice Statement: Audit of Pro Forma Financial Information (IDW AuPS 9.960.1) promulgated by the *Institut der Wirtschaftsprüfer in Deutschland e.V.* (IDW) in such a way that material errors in the compilation of the pro forma financial information on the basis stated in the pro forma notes and in the compilation of this basis consistent with the accounting policies of the Company are detected with reasonable assurance.

In our opinion, the pro forma financial information has been properly compiled on the basis stated in the pro forma notes. This basis is consistent with the accounting policies of the Company.

Frankfurt am Main, Germany, 1 May 2023

RSM GmbH

Wirtschaftsprüfungsgesellschaft Steuerberatungsgesellschaft

/s/ Christine Klug_____

Wirtschaftsprüferin

(German Public Auditor)

/s/Santosh Varughese

Wirtschaftsprüfer

(German Public Auditor)

8. INDUSTRY OVERVIEW

As part of its DFS for Phase One, the Company commissioned an independent market study from Fastmarkets, an independent cross-commodity price reporting agency in the agriculture, forest products, metals and mining, and energy markets, titled "Lithium Market Study – 2022" dated October 2022 (the "**Fastmarkets Analysis**"). The intention of the Fastmarkets Analysis is to offer insights into how the lithium market will develop and how Vulcan Group's Zero Carbon Lithium™ Project will feature in these developments. The focus of the Fastmarkets Analysis is the LHM market and with specific attention given to development in the European Union. However, the analysis is considered on a global basis and in the context of the entire the lithium market and supply-chain.

This prospectus section includes summary information of the Fastmarkets Analysis.

Neither the Company nor the Listing Agent have verified any of the market data or other information included in the Fastmarkets Analysis, nor has the Company or the Listing Agent asked Fastmarkets to modify or otherwise adjust the Fastmarkets Analysis (except where the Company identified inaccuracies).

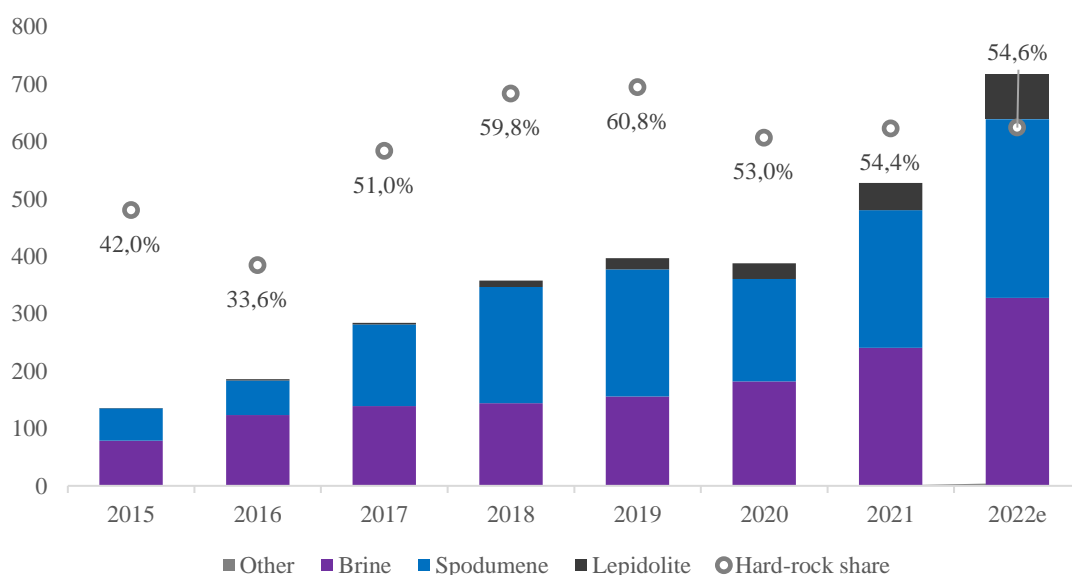
8.1 Summary

In the Fastmarkets Analysis, Fastmarkets calculated the supply-demand fundamentals of the global lithium market. Having shown that the market is undersupplied, Fastmarkets then looked at pricing to understand how the tight supply picture would keep lithium prices supported and the implications for Vulcan Group's Zero Carbon Lithium™ Project.

8.2 Historic lithium supply

Lithium supply has been increasing rapidly over the last years to satisfy the needs of the growing demand. Figure 8-1 shows how lithium production has been increased in recent years, except for a slowdown in 2020 caused by the coronavirus pandemic.

Figure 8-1: Global lithium raw material production (kt LCE)



Lithium is produced from two main deposit types, namely brines and hard rock pegmatites. With the increasing demand for lithium and strong price rises, economically extracting lithium from other deposits, such as clays and mica, are being investigated and developed. While these may be a minor source of lithium for now, they are forecast to form a greater part of the lithium supply picture within the next 5 years.

Concentrating on the two main sources, lithium brine deposits tend to have superior economics to hard rock sources, when it comes to lithium carbonate equivalent ("**LCE**") production, rather than conversion. Hard rock deposits require costly drilling, mining, blasting and crushing processes, followed by physical separation, utilising traditional mining methods. Within a brine deposit, the lithium is already isolated, albeit in an extremely diluted state, so only requiring extraction, by

evaporation or direct extraction, to precipitate the final product from the solution. Table 8-1 summarises some of the key differences in source.

Table 8-1: Comparison of lithium production from brine versus hard rock sources

Deposit Type	Processing	Operating costs	Capital costs	Notes
Hard rock	Mining, crushing, concentration, roasting, leaching and crystallisation directly to lithium hydroxide	Operating costs are typically higher	Typically lower capex/tonne LCE than brine operations	Typically less variable chemistry than brines, so favoured by battery producers
Brines – Solar evaporation	Pumping, evaporation, chemical treatment and precipitation to lithium carbonate. A further conversion step is required to produce lithium hydroxide.	Typically lower than other methods using generated power	Typically higher capex/tonne LCE than hard rock operations. Additional costs to convert to lithium hydroxide if needed	Rate of output related to weather and season
Brines – DLS	Pumping and one of several extraction methods to produce lithium chloride and then lithium carbonate or lithium hydroxide depending on the process.	Higher than solar evaporation, but lower than hard rock. Potential to use renewable energy to reduce operating costs	Typically higher capex/tonne LCE than solar evaporation and hard rock operations.	Output can be regulated by operator

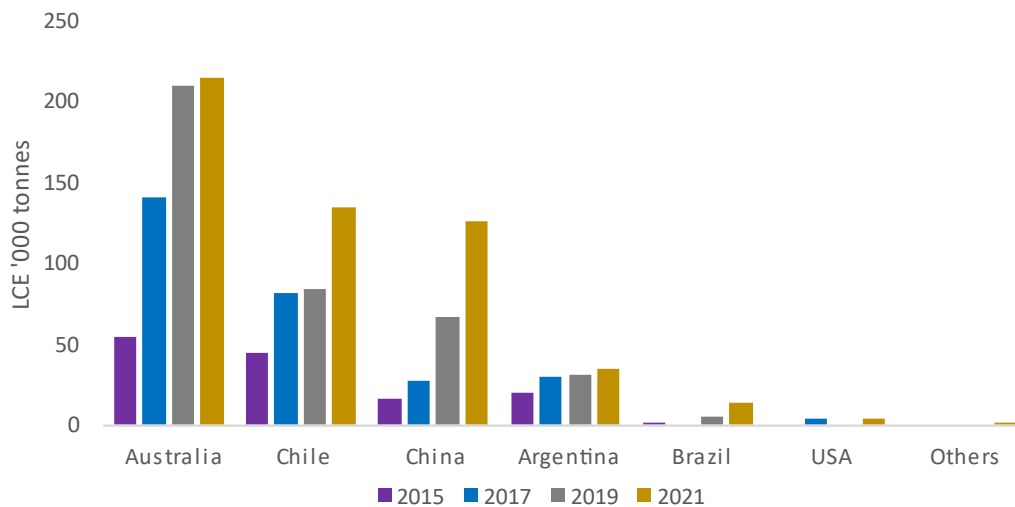
While hard rock deposits have higher operating costs, traditional brine operations are highly capital intensive at the outset. Other negative factors for development of brine deposits are the long development times (due to design issues and permitting) and often an extended period between initial investment and revenue generation. Solar evaporation is also dependent on weather for evaporation, which can affect the output rate, and the growing challenge to access water resources, especially in the arid regions of South America.

Some of the disadvantages of brine when compared to hard rock extraction are partly mitigated by the development of DLS and some of the limitations of solar evaporation. Vulcan Group's Zero Carbon Lithium™ Project is based on an established, commercially-viable type of sorption-type lithium technology, which Vulcan is adapting to its own particular brine chemistry and pressure conditions and engineering to use renewable energy in the process, rather than fossil fuels.

DLS technologies require external power, so their operating costs are typically higher than those of solar evaporation. However, projects based on geothermally heated brines, as is the case for Vulcan Group's Zero Carbon Lithium™ Project, do not need to heat the brines as much as non-geothermal brines, and so can benefit from lower operating costs.

Major lithium sources generally come from six countries: Argentina, Australia, Brazil, Chile, China and the United States – Figure 8-2. Other countries have supplied lithium in recent years, so while these six countries will continue to supply the market, several others are expected to begin or to restart extracting lithium, spurred on by current high prices and forthcoming demand tightness.

Figure 8-2: Unprocessed lithium production by country (kt LCE)



Source: Fastmarkets

8.3 Lithium supply forecast

Fastmarkets tabulates existing projects and projects, which are expected to enter operation. The expected exponential growth in demand and the relatively small supply base, has led to a rush to bring on-line additional lithium capacity. Consequently, many small and untested projects are being promoted. It is likely that some will not receive the financial backing required and others will not meet feasibility criteria to move forward to the construction and production stages. Of those that are built, some will fail to achieve their expected capacity or take longer to get there, than foreseen.

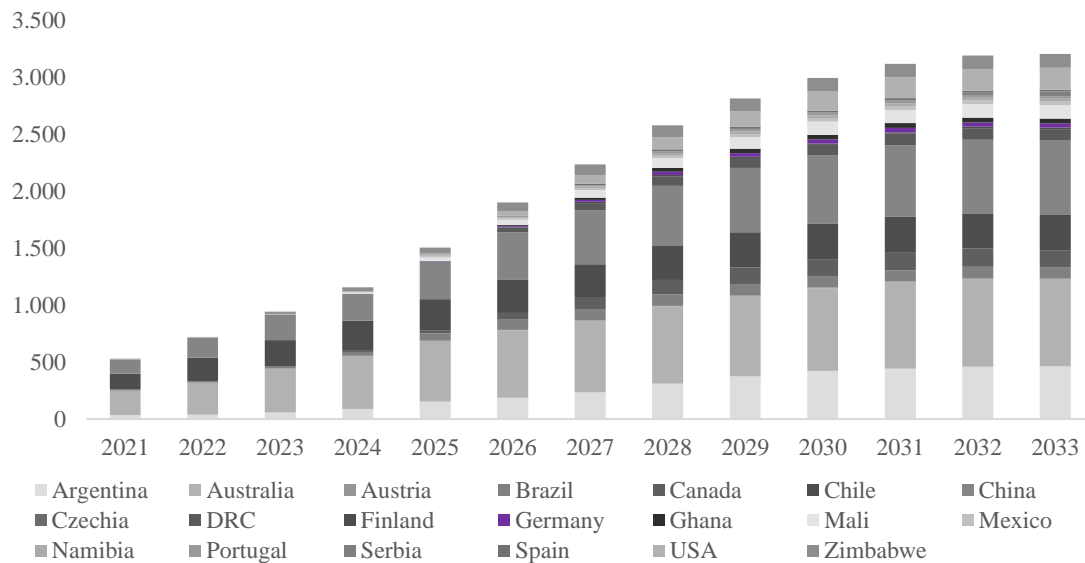
In assessing future supply, Fastmarkets has tried to estimate:

- Likelihood that a project will proceed to the production stage;
- When projects will commence;
- The speed with which they will be ramped up; and
- The ultimate capacity of the project.

Some projects will not come to fruition. However, other projects may overdeliver on output or as yet unknown projects are expected to be advanced, incentivised by the tight supply picture. In all, this would help to ensure the supply picture remains in close alignment with Fastmarkets' demand forecasts.

Figure 8-3 shows Fastmarkets forecasts for lithium raw material production data out to 2040 on a country basis. This includes on-going projects through to those that are at the earliest stage of investigation and development.

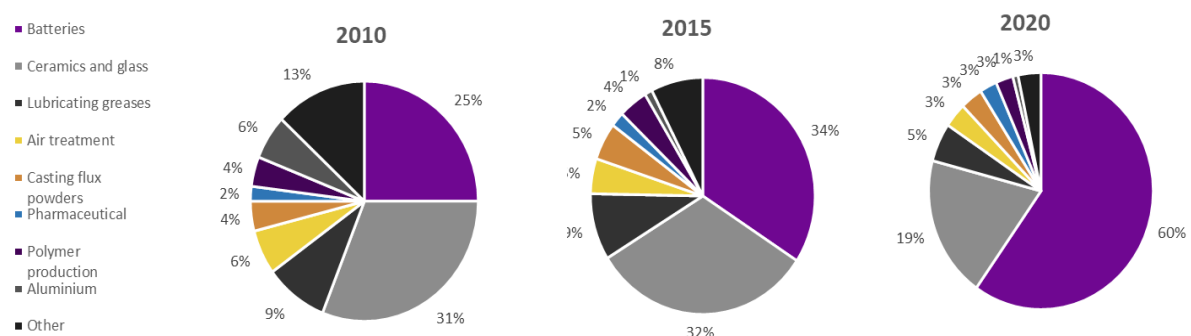
Figure 8-3: Lithium production by country (kt LCE) – Forecast



8.4 Lithium demand

Until 2017, the majority of the lithium produced was consumed in traditional end-use sectors, such as ceramics, glass, lubricating greases, and others detailed below. However, it has been the surge in demand for lithium for battery applications which has lifted interest in the metal to new levels. Since 2018, demand for lithium in batteries has surpassed demand from traditional end-uses – Figure 8-4.

Figure 8-4: Global lithium usage by end market – 2010, 2015, 2020 (% LCE basis)



Source: Fastmarkets

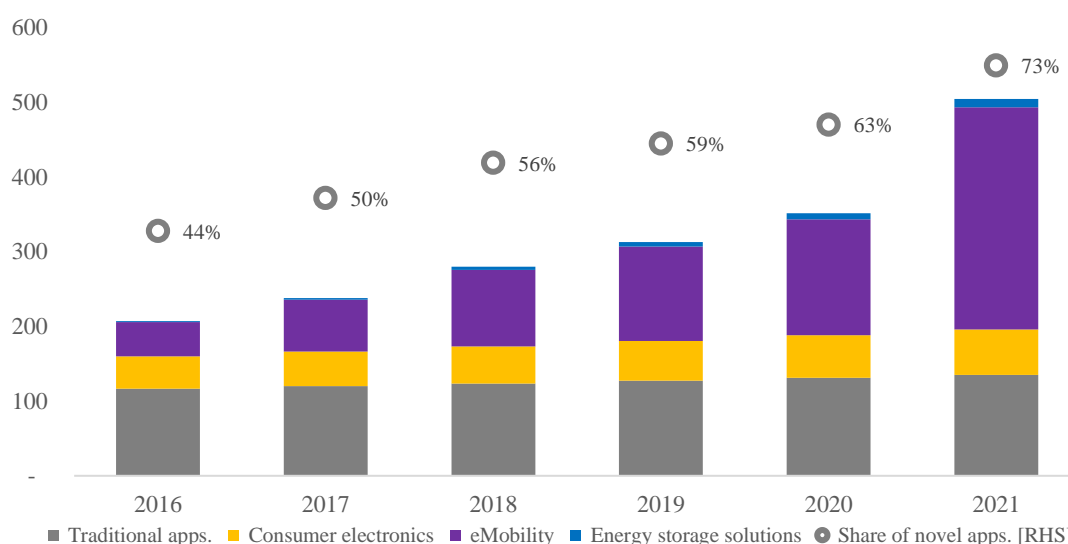
The recent up-tick in interest in lithium may be centred on the potential for growth in the battery and energy storage solutions sectors, but lithium still has several important traditional uses. Use in these sectors is forecast to contribute steady demand into the future. However, with comparatively low growth rates for each of the applications, the market share of traditional applications is forecast to drop in the face of increased demand for battery applications. This trend is already well underway, with traditional markets having accounted for 75% in 2010, falling to 26% in 2021.

Looking at rechargeable batteries

While several battery options and chemistries exist, rechargeable batteries are increasingly dominated by lithium ion ("**Li-ion**") cathodes in most applications, with Li-ion batteries increasingly usurping other types, such as nickel-metal hydride, in key areas like electric bikes.

Li-ion batteries were first commercialised in the 1990s, which led to a surge in usage of consumer electronic devices, such as cell phones, smart phone, tablets and laptops throughout the 2000s. Figure 8-5 captures how the demand for lithium has increased in recent years. While energy storage and consumer electronics are increasing, this shift is almost all due to the strength of the eMobility sector.

Figure 8-5: Demand for lithium by end-use sector (kt)

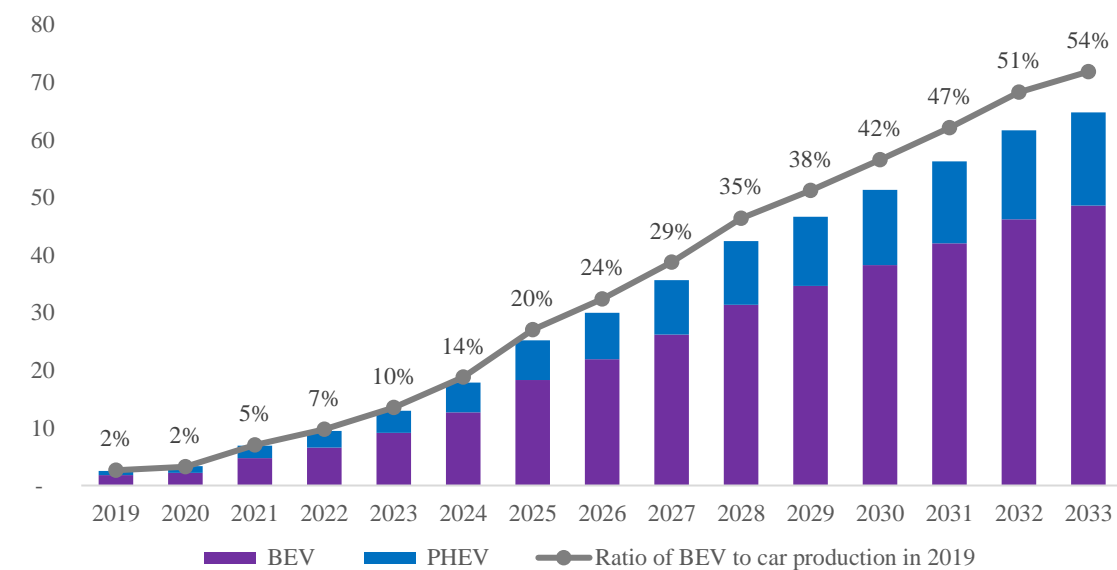


Source: Fastmarkets

The increasing need for lithium is being driven by surging BEV and other eMobility demand. Besides Li-ion batteries, no other proven battery type offers the properties to store sufficient power in a cell light and low-cost enough to allow the BEV revolution. With BEVs being championed to help decarbonisation efforts, Li-ion batteries have seen significant development and output growth over recent years.

EV penetration rates are forecast to continue to show strong growth over the coming years, with this helping to incentivise investment in the battery supply chain. Hybrids and plug-in hybrids ("PHEV") will continue to dominate global sales, with BEV sales accounting for just 10.6 million units in 2021. However, this is forecast to lift each year to reach total sales of 48.6 million units by 2033 – Figure 8-6. Fastmarkets has based growth forecasts on the 2019-sales volume due to the weakness of sales in 2020 and 2021, caused by semiconductor shortages and production reduction due to pandemic-related lock-downs.

Figure 8-6: Global BEV and PHEV sales forecast (Million units) – Forecast



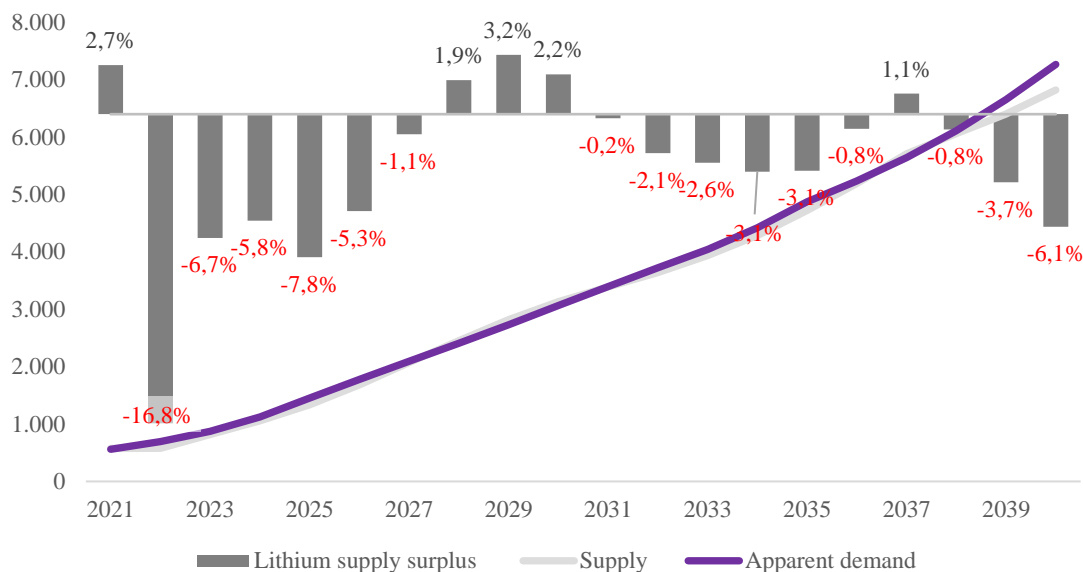
While the rapid growth of BEV uptake is the consensus view, forecasts as to just how rapidly these sales will gain momentum vary widely. As well as Fastmarkets, several governmental and other analysis groups produce BEV forecasts. It is relevant to recognise that the forecasts for BEV uptake are wide-ranging, especially from 2025 onwards. This implies a high uncertainty. For 2030, public forecasts range from 25 million units to 40 million units. Fastmarkets forecast of 38 million units is towards the upper end of consensus, but within the envelope of forecasts. This variability in forecasts has implications for lithium demand, both in the quantity needed at the time and the ease with which projects can gain financing.

Fastmarkets' forecasts are constrained by concerns about the supply of lithium and other metals required for BEVs. If resolved, then stronger BEV output growth would be expected.

8.5 Lithium supply-demand balance

When looking at the lithium market balance, Fastmarkets expects apparent supply growth to fail to keep pace with demand growth over the forecast period – Figure 8-7. This is despite including all identifiable projects – with appropriate discounting for the likelihood of projects coming to market – and known expansions plans at existing facilities. Projects that are undefined and where there is little to no information available have not been included in the analysis.

Figure 8-7: Supply-demand balance, and surplus as share of supply (kt, %) – Forecast



There are significant risks to these forecasts on both the supply and demand sides:

- **Supply side risks:** Risks on the supply side are for lower-than-expected output and so primarily on the downside.

Operational difficulties, funding delays and extended construction times have all been a recurrent issue in the lithium field which have regularly seen project start-up dates slip by 12-18 months. Active decisions to delay investment in new capacity by the OEMs, or at least to amend production plans to take into account any growing surpluses, are also possible, but unlikely given the expected shortfall.

- **Demand side risks:** Demand risks are a clear possibility given the reliance on growth in the burgeoning but nascent eMobility and energy storage system sectors.

The recent growth in BEV sales offers some assurances that eMobility, at least, has 'crossed the chasm' from early adopters to the mainstream markets. BEV uptake is still heavily reliant on government subsidies, so changing these affects uptake and so lithium demand. So, demand could surprise either to the up- or downside.

A more remote risk is that lithium could fall out of favour as the primary BEV battery.

Overall, Fastmarkets believes that its view presented is balanced on lithium supply, and somewhat conservative on demand. It would be expected that supply-demand risk to be mildly biased towards the upside.

8.6 Lithium production costs

The key factor in determining the profitability of Vulcan Group's operation will be the Zero Carbon Lithium™ Project's cost of production relative to other operations. Fastmarkets' estimate of a project's costs uses a bottom-up approach based on assumptions about the operations. On top of this, costs for transport to a common location and any duties that would be applied are added to allow comparison from different sources.

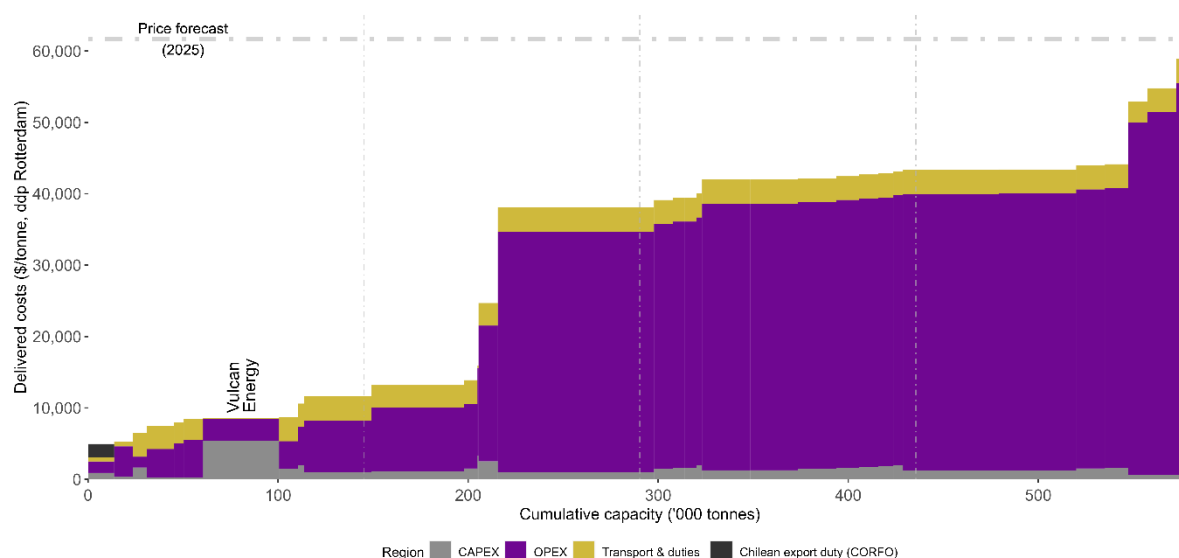
It should be specified that for its analysis, Fastmarkets has chosen to reference all costs to Rotterdam as the main port of ingress for Europe. With Vulcan Group's Zero Carbon Lithium™ Project centrally located in Europe, it would be able to offer lower transport costs, especially when servicing German and Scandinavian customers. Vulcan Group's stated aim is to supply only European battery manufacturers, and so onward transport to Asia or North America is not pertinent to Vulcan Group's

Zero Carbon Lithium™ Project. Fastmarkets believes this intention reflects the expected growth of the European battery market and the increasing production base.

The analysis in Figure 8-8 presents a positive view of Vulcan Group's cost advantage, showing a project with large capacity and one of the lowest cost operations. Note that all projects included in the cost-curves are believed to be in operation today, with the exception of Vulcan Group's Zero Carbon Lithium™ Project, which is shown for comparison.

Being based in Europe and supplying a European customer base, Vulcan Group's Zero Carbon Lithium™ Project will avoid duties that importers may be subject to. Prevailing taxes are captured. Other taxes may be added. For example, the Chilean Economic Development Agency (CORFO) is proposing an *ad valorem* tax on lithium exports. While this may not be imposed, the proposal would see an additional tax of 3% of the sales price of the lithium. At Fastmarkets' full-year 2025 forecast of \$61,700/tonne, Chilean material would rise by \$1,851/tonne surcharge. The effect of this tax is shown in Figure 8-8 for comparison.

Figure 8-8: Lithium hydroxide delivered costs - 2025 (\$/tonne, ddp Rotterdam) – Estimate



Source: Fastmarkets

Fastmarkets

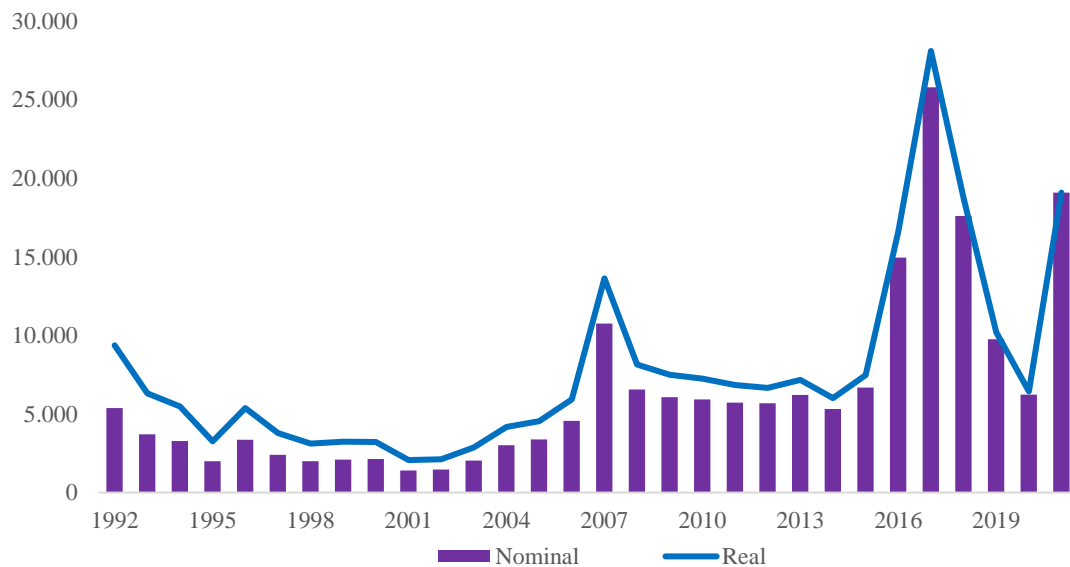
8.7 Historic lithium pricing

A sharp tightening in the availability of lithium in all product forms during the 2015-2018 period, relative to demand levels, led to prices increasing to record highs. The key inflection point, which occurred in late 2015, was the result of the Chinese government's push to 'electrify' the automotive industry. With this policy, a sudden increase in demand for lithium occurred, and as buying activity picked up dramatically sellers were unable to satisfy demand, as the mostly balanced fundamentals and the stable price of the previous decades had disincentivised investment in supply.

This step change in lithium pricing is demonstrated clearly in Figure 8-9, which shows seaborne pricing for actual transactions. It should be noted that these prices represent averages for the month, with trade data showing wide ranges in terms of individual transactions – both in spot and contract. Lithium carbonate prices are shown, as Fastmarkets has been collecting them for longer than LHM, though both show the same pattern.

Since 2019, lithium prices have risen on strong demand figures for BEVs, positive sentiment about future supply tightness and perceived future supply shortages, due to tightening fundamentals. The continued strength of BEV sales in 2020 and 2021 brought credibility to the forecasts of exponential growth in BEV demand, and has left battery manufacturers concerned about securing their raw materials.

Figure 8-9: Long-run lithium carbonate prices (\$/tonne, cif China)

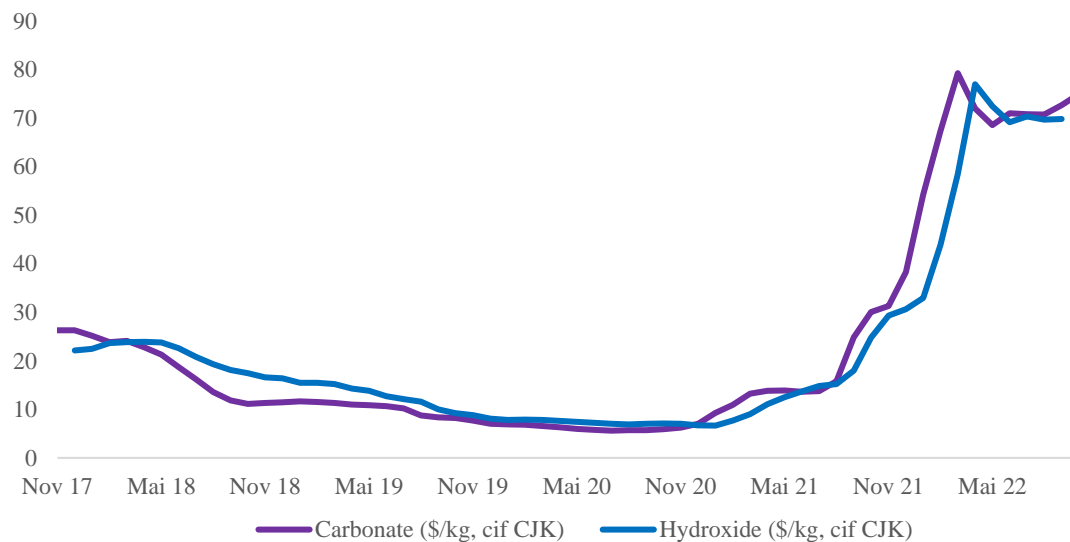


Source: Fastmarkets, BEA

Between January 2021 and August 2022, the price of spodumene increased 1,400%, while the prices of lithium carbonate and LHM for the Chinese, Japanese and South Korean markets increased more than 930% and 740%, respectively.

Figure 8-10 shows the previous down trend, and the jump over 2021.

Figure 8-10: Lithium pricing – January 2018-August 2022 (\$/tonne, monthly average)



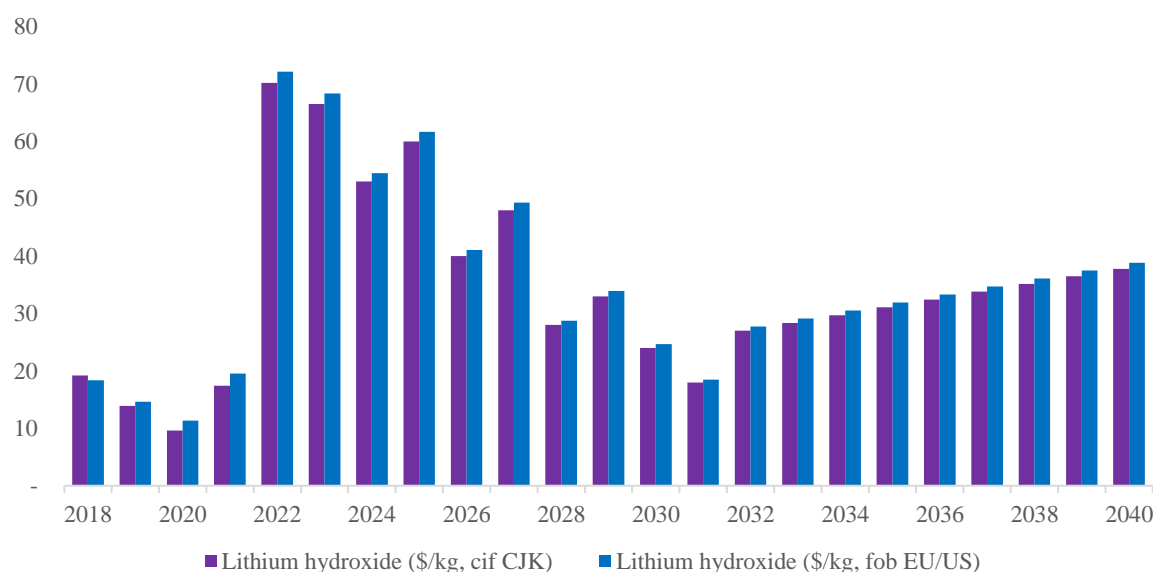
Source: Fastmarkets

8.8 Lithium price forecast

Fastmarkets' base-case outlook for LHM prices in the two main regions are provided in Figure 8-11.

Fastmarkets sees the price differential between Asia and EU/US narrowing as demand for LHM in Asia increases on the back of nickel-rich battery chemistries gaining market share.

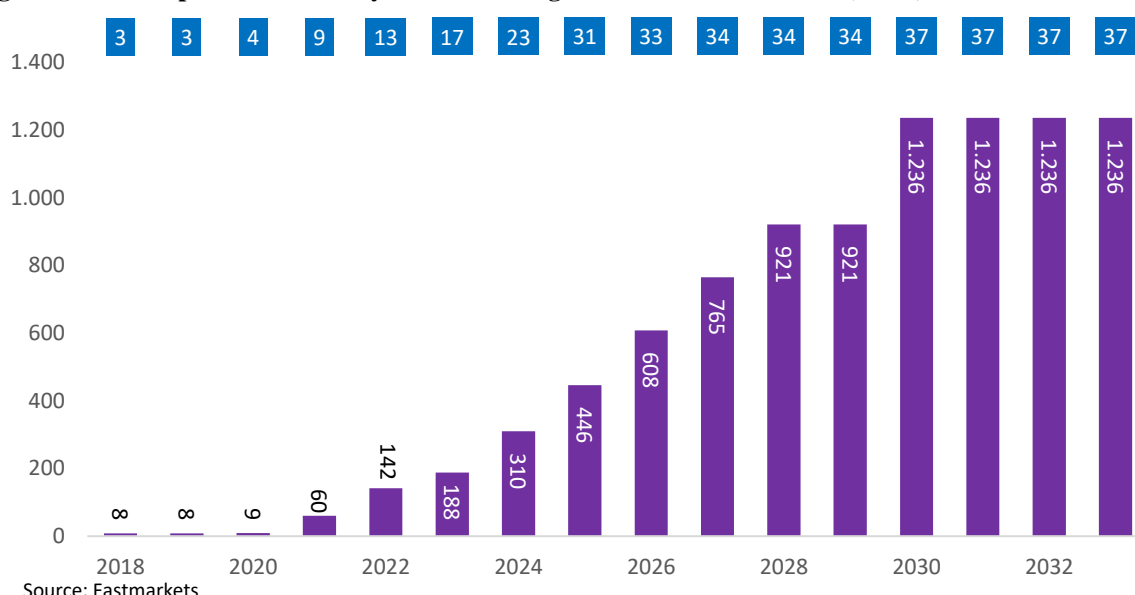
Figure 8-11: Lithium hydroxide price forecasts - Base case (\$/kg)



8.9 European battery manufacturing

The development of BEV manufacturing capacity in Europe has been met by increased demand for batteries. To satisfy this demand, battery producers are adding capacity. From a small base, large scale additions of battery capacity throughout Europe are to be expected. A lot of this is being championed by governments and the European Commission, which see the economic benefit of sustainable, regional battery manufacturing.

Figure 8-12: European BEV battery manufacturing and number of facilities (GWh) – Forecast



From just 8.3 GWh capacity in 2020, company reports and press coverage forecast European capacity rising to over 1,200 GWh by 2030 – Figure 8-12. This is accompanied by the number of facilities increasing from three in 2019 to a possible 37 from 2030 onwards.

With an expected lithium loading in batteries of 0.64 kg of LCE per kWh in 2030, taking into account changing battery chemistries, this would equate to lithium demand in Europe rising to 0.81 million tonnes LCE in 2030. If this was all sourced as LHM, then it would equate to 0.92 million tonnes, though fabricators will be using both LHM and lithium carbonate. Technological developments and process improvement are likely to reduce this quantity, but it will be difficult for supply to ramp up so quickly, despite the desire to satisfy the strong demand.

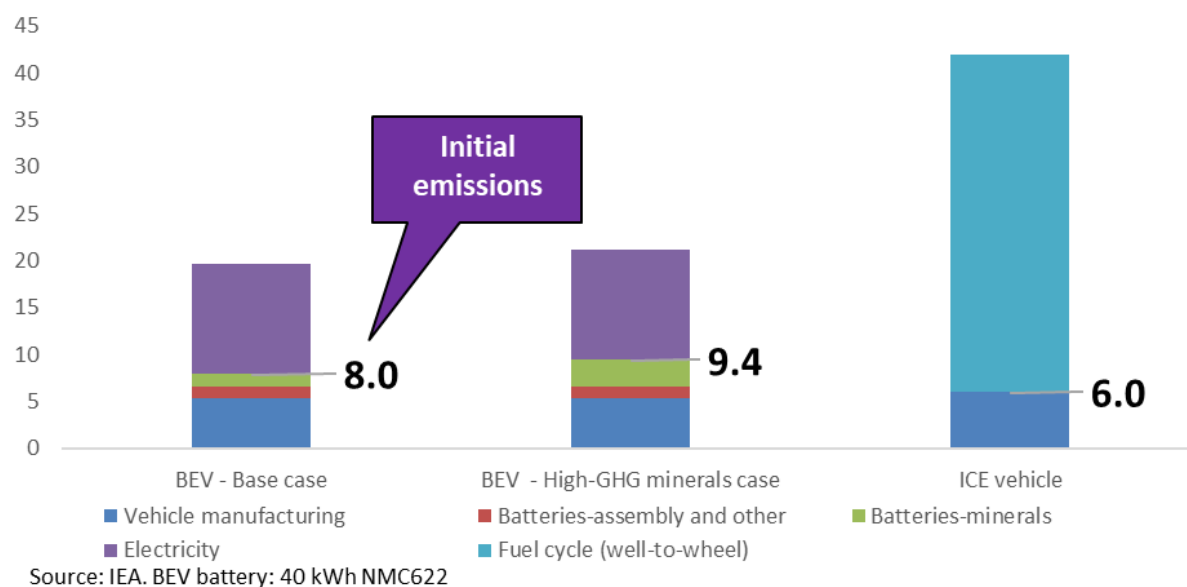
Meeting such an increase in capacity will also see the average size of facilities rising, with smaller plants being extended and new ones being designed with higher capacities. The mean capacity of each plant in 2020 was 6.7 GWh per annum. This is forecast to increase to 33.4 GWh per annum by 2030.

8.10 Benefits of low emissions lithium

The driving force for the energy transition is the reduction of GHG emissions to limit climate change. This presents a paradox for many commodities; while commodities are needed for the energy transition, extracting and processing the commodities releases significant quantities of emissions.

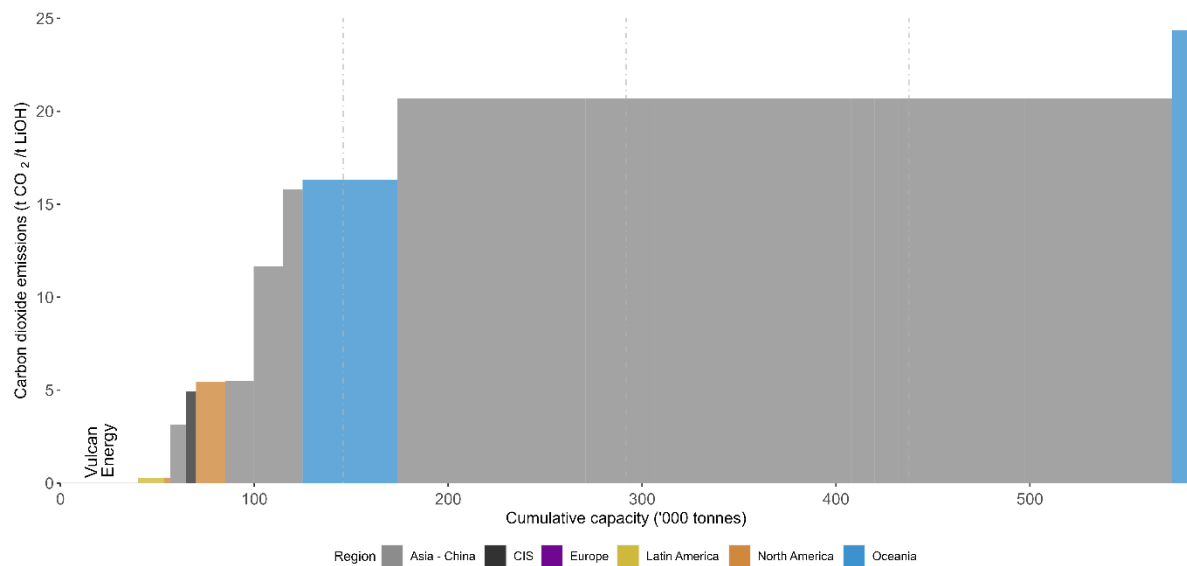
When assessing the lifecycle emissions of a BEV compared to an internal combustion engine ("ICE") vehicle, the emissions released in extracting the commodities used in the batteries typically see the BEV's GHG footprint being initially higher than those of an ICE vehicle. Only after several years are these offset by the use of cleaner energy. This is shown in Figure 8-13. As such, materials that reduce the emissions embedded in batteries are favoured.

Figure 8-13: Lifecycle greenhouse gas emissions (t CO₂ eq. over 2000,000 km lifetime mileage)



Fastmarkets used the same methodology in building its cost curves to assess the emissions of the plants currently producing LHM. Figure 8-14 shows Fastmarkets' analysis, with Vulcan Group's operation included for reference. Note that the values shown do not include credits which may be available from selling geothermal power.

Figure 8-14: Emissions from hydroxide operations (t CO₂ eq. / t LiOH)



Source: Fastmarkets

Fastmarkets

As can be seen, Vulcan Group would have the lowest emissions of all existing operations. This would be attractive to customers and a competitive advantage.

8.11 Competitive landscape and outlook

Fastmarkets believes that Vulcan Group's Zero Carbon Lithium™ Project is strategically well positioned to benefit from the increasing demand for lithium in Europe. The advantages of DLS production allied with geothermal heat and power offers a solution that makes sound production and environmental sense.

While there are weaknesses and threats to the lithium market, these are largely not specific to Vulcan Group's Zero Carbon Lithium™ Project and are, in the view of Fastmarkets, more than offset by the strengths and opportunities that the project's strategy offers.

9. BUSINESS

9.1 Introduction

9.1.1 Business Overview

Vulcan Group is an Australian headquartered lithium battery chemicals and renewable energy group with a clear goal to become the world's first lithium chemicals and renewable energy producer with a net zero carbon footprint. With its Zero Carbon Lithium™ Project, Vulcan Group intends to combine the operations of extracting lithium-rich geothermal brines in the Upper Rhine Valley of Germany, of upgrading lithium through electrolysis to a high purity LHM (Vulcan Group's lithium business), and of producing geothermal energy (Vulcan Group's renewable energy business). Vulcan Group's long-term target is to produce enough LHM for 1 million BEVs per annum while contributing a reduction of 1 million tonnes of CO₂ emissions per annum, and to produce renewable heat for more than 1 million people by 2030. Vulcan Group's Zero Carbon Lithium™ Project intends to produce a battery-quality lithium chemical product from its combined geothermal renewable energy and lithium resource located in the Upper Rhine Valley, which is estimated to be Europe's largest lithium resource (based on lithium-focused peers in Europe with comparable project size at a comparable stage of development and published resource information), as estimated and reported in accordance with the 2012 Edition of the JORC Code (source: Vulcan Energy Resources Ltd, Vulcan Zero Carbon Lithium™ Project Phase One DFS Results and Resources-Reserves Update, ASX Release, 13 February 2023¹; see section "2.10 References regarding mineral resources, ore reserves and production targets" and the Competent Person Report for information about the Company's mineral resources, ore reserves and production targets (including forecast financial information based on production targets) included in this Prospectus). Vulcan Group aims to supply the BEV market in Europe, which is among the fastest growing in the world (source: S&P Global Platts 1), and is currently reliant on imports of lithium chemicals given the lack of domestic supply. The Zero Carbon Lithium™ Project has also been designed from its inception to help decarbonise the German electrical and local heating grids and lithium supply chain simultaneously and has the lowest planned carbon footprint in the lithium industry compared to any previously published life cycle assessment results (source: Fastmarkets Analysis). An essential part of the Zero Carbon Lithium™ Project involves the use of thermal water as the principal heat source to drive the lithium extraction, which means that lithium is expected to be extracted from the brine with a net zero carbon footprint without polluting the environment with waste material or toxic substances prior to the brines being re-injected in a closed loop, circular system.

In order to advance its lithium and geothermal exploration activities as well as its renewable energy business, Vulcan Group has undertaken several strategic acquisitions in Germany within the last two years. In particular, Vulcan Group acquired two geothermal engineering companies in July 2021, which has brought significant surface and sub-surface geothermal operating expertise into Vulcan Group and in December 2021, Vulcan Group acquired Pfalzwerke geofuture GmbH (renamed Natürlich Insheim GmbH), a company that owns and operates a geothermal renewable energy plant (the Insheim Plant) and has a geothermal exploitation licence for the property of the plant site in Insheim, Germany (see section "9.1.2 Recent Acquisitions"). Moreover, in November 2021, the Company acquired two electric drill rigs as part of Vulcan Group's Zero Carbon Lithium™ Project which can drill to the target depth required for deep geothermal energy wells in the Upper Rhine Valley of Germany. Most recently, the Company acquired Comeback through Vulcan Energie, the Company's direct subsidiary in Germany, to insource drilling personnel capabilities.

Vulcan Group holds 16 exploration licences in the Upper Rhine Valley of Germany for areas within the German states of Baden-Württemberg, Rheinland-Pfalz and Hessen, as well as a geothermal exploitation licence at the Insheim geothermal plant bringing the total licence area to over 1,583 km². In addition, Vulcan Group has applied for an exploration licence in the French region "Les Cigognes", covering an area of 155 km² (15,500 hectares) east of the city of Haguenau. An exploration licence is needed for exploring freely mineable resources, and an exploitation licence (also referred to as a production licence) gives the right to extract freely mineable resources. Vulcan Group is currently at the exploration and development stage and is targeting commencement of commercial production at year-end 2025, capitalising on its proprietary method for the manufacture of battery-grade LHM with a net zero carbon footprint.

As of the date of this Prospectus, Vulcan Group has entered into binding lithium offtake agreements with five customers. In October 2021, Vulcan Group entered into a lithium offtake agreement with

¹ This information relates to the Insheim, Landau-Sued, Taro, Kerner and Rift Nord licences.

Umicore N.V. ("**Umicore**") to sell between 28,000 metric tonnes and 42,000 metric tonnes of battery-grade LHM to Umicore over an initial five-year term with start of commercial delivery initially scheduled to commence in 2025 (but postponed to 2026) (see section "9.16.2.1 *Lithium Offtake Agreement with Umicore*"). In November 2021, Vulcan Group entered into lithium offtake agreements with Renault Group ("**Renault**") and Stellantis N.V. ("**Stellantis**"), respectively, to sell to Renault between 29,000 to 49,000 metric tonnes of battery-grade LHM over an initial six-year term (see section "9.16.2.2 *Lithium Offtake Agreement with Renault*") and to Stellantis between 222,000 metric tonnes and 272,000 metric tonnes of battery-grade LHM over a ten-year term (see section "9.16.2.3 *Lithium Offtake Agreement with Stellantis*"), in each case with commercial delivery initially scheduled to commence in 2026 (but postponed to 2027). In December 2021, Vulcan Group entered into a lithium offtake agreement with Volkswagen AG ("**Volkswagen**"), to sell to Volkswagen between 34,000 to 42,000 metric tonnes of battery-grade LHM over an initial five-year term, with commercial delivery initially scheduled to commence in 2026 (but postponed to 2027) (see section "9.16.2.4 *Lithium Offtake Agreement with Volkswagen*"). In January 2022, Vulcan Group entered into a lithium offtake agreement with LG Energy to sell to LG Energy between 41,000 metric tonnes and 50,000 metric tonnes of battery-grade lithium with commercial delivery initially scheduled to commence in 2025 (but postponed to 2026) with an initial term of five years, which can be extended by five years (see section "9.16.2.5 *Lithium Offtake Agreement with LG Energy*"). Together, the volumes of LHM to be delivered under these agreements correspond to the entire expected quantity of the first five years of production from Vulcan Group's Zero Carbon Lithium™ Project.

In addition, in November 2021, Vulcan Group entered into a binding brine offtake agreement with geox GmbH ("**geox**"), an operator of a geothermal power plant in Landau in der Pfalz, Germany (the "**Landau Plant**"), regarding the provision to Vulcan Group of brine from the Landau Plant for the purpose of extracting the lithium contained in the brine over an initial term of 20 years with an earliest offtake start date of 30 December 2024 (the "**geox Agreement**"). Vulcan Group and geox have since entered into a separate joint-venture agreement to jointly develop the wider potential of the Landau Süd exploitation licence. Vulcan Group has also entered into an agreement with GET to develop the northern half of the Rift licence to the west of its Insheim Licence, in return for a production royalty, which is intended to further complement production from the Insheim area.

In April 2022, as part of its renewable energy business, the Company entered into a binding heat offtake agreement with MVV Energie to sell to MVV Energie between 240,000 MWh and 350,000 MWh of renewable heat per year to supply households in Mannheim, Germany. Delivery is targeted to commence in 2025 with an initial term of 20 years. In addition, in January 2023, the Company signed a phased project agreement with Stellantis, aimed at developing, building, and operating geothermal renewable energy assets to help decarbonise the energy supply for Stellantis' operations in Rüsselsheim, Germany, by providing renewable heat. Under this agreement, the parties agreed that the first phase of the project will include a pre-feasibility study for the construction of geothermal assets for Stellantis' Rüsselsheim facility, carried out by the Vulcan Group and based on existing data. The following phase, if the first phase is successful, will focus on drilling and more advanced studies and development. Stellantis plans to aim to source funding for 50% of the project development after the first phase.

In September 2021, Vulcan Group signed a letter of intent agreement with chemical park management company Infracore GmbH & Co. Höchst KG ("**Infracore**"), to secure a site for its planned CLP, at the Höchst Chemical Park (see section "9.16.10 *Site Letter of Intent Agreement with Infracore*"). In April 2023, the Company signed a term sheet regarding a proposed strategic partnership with Nobian, for the formation of a proposed 50/50 joint venture over, and equity financing of, Vulcan Group's CLP, subject to, amongst other things, the entry into of definitive agreements (see section "9.1.3.4 *Funding and SPVs*"). Vulcan Group currently intends to use the CLP to be constructed at the Höchst Chemical Park as a processing hub, processing lithium chloride from multiple combined geothermal and lithium sorption plants into LHM.

The Company has been listed on the ASX since May 2018, initially with a company name of Koppar Resources Limited (ASX Code: KRX) and since September 2019 as Vulcan Energy Resources Limited (ASX Code: VUL). Since the completion of its listing on the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*), the Company believes it is the first Australian company to have a listing on the regulated market of the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*). The Company has its headquarters in Perth, Australia, and its principal subsidiaries focused on the development of geothermal and lithium projects are based in Karlsruhe and Augsburg, Germany. In addition to its consolidated subsidiaries, Vulcan Group also holds a minority interest in Kuniko, an ASX-listed company focused on developing hard-rock battery metals projects in Scandinavia with a planned net

zero carbon footprint. Kuniko was originally a wholly owned subsidiary of the Company. In April 2021, the Company announced the planned spin-off of Kuniko (containing Vulcan Group's non-core Norwegian battery metals assets) in order to focus on its Zero Carbon Lithium™ Project. The spin-off was executed by means of an initial public offering of Kuniko on the ASX, which was completed in August 2021.

As Vulcan Group is currently still in the exploration and development phase in its lithium business, it did not generate any significant revenues in the last four financial years, with no revenue from continuing operations in the financial years ended 30 June 2020 nor 30 June 2021, and revenue from continuing operations of EUR 3,799,000 and EUR 3,622,000 generated in the financial years ended 30 June 2022 and 31 December 2022 (short financial year), respectively. As of the date of this Prospectus, Vulcan Group has a total of 290 employees (full-time equivalents) based in Australia and Germany.

9.1.2 Recent Acquisitions

In order to advance its lithium and geothermal energy exploration activities, Vulcan Group has undertaken the following strategic acquisitions within the last two years.

9.1.2.1 Global Geothermal Holding UG

In July 2021, the Company's wholly owned subsidiary Vulcan Energie acquired GGH from Dr Horst Kreuter and Thorsten Weimann, with the consideration for the purchase comprising shares in the Company (see section "12.2 Development of the share capital over the past three years"). GGH holds an exploration licence for geothermal energy (the "**Taro Licence**") (see section "9.5.4 Overview of Project Licences"). GGH has meanwhile been merged with and into Vulcan Energie.

9.1.2.2 gec-co Global Engineering & Consulting-Company GmbH and GeoThermal Engineering GmbH

In July 2021, the Company's wholly owned subsidiary Vulcan Energie acquired geothermal engineering companies, GeoT, since renamed Vulcan Energy Subsurface Solutions GmbH (VESS), from Dr Horst Kreuter, and Gec-co, since renamed Vulcan Energy Engineering GmbH (VEE), from Thorsten Weimann, with the consideration for the purchase of Gec-co comprising shares in the Company (see section "12.2 Development of the share capital over the past three years"). VESS is an engineering company focused on the sub-surface development of deep geothermal renewable energy projects and VEE is an engineering company focused on the above-surface development of geothermal power and heating plants, in Europe and worldwide. Vulcan Group-internal experts were also among the experts which contributed to the PFS (see section "9.1.3.1 Pre-Feasibility Study") and the DFS. These acquisitions enabled the Company to bring in an experienced surface and sub-surface geothermal development team to execute on its Zero Carbon Lithium™ Project.

9.1.2.3 Natürlich Insheim GmbH

In December 2021, the Company's wholly owned indirect subsidiary VER GEO LIO GmbH ("**VER GEO**") acquired from Pfalzwerke Aktiengesellschaft ("**Pfalzwerke**") 100% of the shares in Pfalzwerke geofuture GmbH (renamed Natürlich Insheim GmbH (the "**Insheim Acquisition**"). Natürlich Insheim owns and operates a deep geothermal power plant in Insheim, Germany, which operates with a thermal water temperature of 165°C, with the technical ability to produce a maximum of 4.8MW power or 28.5MW thermal energy (currently producing approximately 2.9MW of electricity on average). The Insheim Plant has the capacity to supply approximately 8,000 households with electricity and approximately 600-800 households with heat. The Insheim Plant has been a source of revenue for Vulcan Group since its acquisition, representing EUR 3,128,000 in revenue for the short financial year ended 31 December 2022 and EUR 2,977,000 in revenue for the financial year ended 30 June 2022 (following its acquisition in December 2021). In addition, Natürlich Insheim holds an exploitation licence (the "**Insheim Licence**"). The Insheim Licence grants Natürlich Insheim the exclusive right to geothermal energy from brine extracted from the site of the Insheim Plant. The Insheim Plant currently pumps lithium-rich brine to the surface for geothermal energy generation, but not for processing and extracting the lithium before the brine is reinjected into the reservoir.

9.1.2.4 Comeback Personaldienstleistungen GmbH

In January 2023, the Company acquired Comeback through Vulcan Energie, the Company's direct subsidiary in Germany, to insource drilling personnel capabilities. Comeback serves the German and

European drilling industry, offering tailored personnel services. The Company intends to capitalise on Comeback's capabilities in order to expand its workforce, particularly of qualified drill personnel for the drill rigs acquired by Vulcan Group, by adding approximately 46 personnel to Vulcan Group's in-house development drilling team.

In exchange for the acquisition of all shares of Comeback, an upfront cash consideration of EUR 150 thousand was paid by Vulcan Energie. Additionally, the Company agreed to issue Performance Rights via a capital increase to the previous sole shareholder of Comeback, subject to the satisfaction of certain milestones. The issue of Performance Rights is based on two milestone achievements with a fixed value of EUR 100,000 each.

9.1.3 Vulcan Group's Mission to implement the Zero Carbon Lithium™ Project

Vulcan Group has a clear goal to become the world's first lithium chemicals and renewable energy producer with a net zero carbon footprint. Vulcan Group's long-term target is to produce enough LHM for 1 million BEVs per annum while contributing a reduction of 1 million tonnes of CO2 emissions per annum, and to produce renewable heat for more than 1 million people by 2030.

To implement its Zero Carbon Lithium™ Project, Vulcan Group has progressed and plans to continue to progress its Zero Carbon Lithium™ Project by conducting industry-standard feasibility studies. A "preliminary feasibility study" (or "pre-feasibility study") of a mineral deposit is undertaken to determine what portion of the mineral resources may be converted to ore reserves. Following the preliminary feasibility study, a company may undertake further technical and economic studies of the project (generally known as a "definitive feasibility study") to demonstrate that, at the time of reporting, the project is economically mineable. A "definitive feasibility study" is of a higher level of confidence than a pre-feasibility study, and the results of the study often serve as the basis for a final decision by the company to proceed with, or a financial institution to finance, the development of the project. Both pre-feasibility studies and definitive feasibility studies include economic and financial analyses based on certain assumptions relating to extraction, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and governmental factors, as well as any other relevant factors as determined by a qualified minerals industry professional (known as a "competent person").

9.1.3.1 Pre-Feasibility Study (January 2021)

A pre-feasibility study ("**PFS**") was completed for Vulcan Group's Zero Carbon Lithium™ Project in January 2021.

In 2020, Vulcan Group acquired and reinterpreted existing 2 D and 3 D seismic data relating to the Taro Licence area, and detailed geological and downhole geophysical information from a well located approximately 18km northeast of the Taro Licence area. In addition, Vulcan Group conducted its first mineral processing trials using a sorption-type DLS method to test the recovery of lithium from the brine. Vulcan Group's PFS presented probable ore reserves and indicated and inferred mineral resources for two of its granted licences, with a planned Phase One development in the Taro Licence area and a planned Phase Two development in a licence area location near the city of Offenburg (the "**Ortenau II Licence**").

Investors should not rely on the results of the PFS as the Company considers that the material assumptions underpinning that study to be no longer correct in light of the additional studies undertaken in preparing the DFS for Phase One and developments since the PFS was published (including inflation in relation to certain costs as a result of supply chain disruptions and increased commodity costs, as well as an expansion of the project scope and refinements to the development plan, such as an increase in the number of well sites and additional infrastructure including pipelines and gas systems).

9.1.3.2 Definitive Feasibility Study for Phase One (February 2023)

Following successful completion of Vulcan Group's PFS, the Company commenced its DFS for Phase One. Hatch Ltd and GLJ Ltd, which were both also involved in the preparation of the PFS, had been engaged to assist the Company with the DFS for Phase One. In August 2021, Vulcan Group appointed BNP Paribas to work with Vulcan Group on a bankability review of the DFS for Phase One and advise it on its finance process. Vulcan Group completed its DFS for Phase One in February 2023.

While the DFS for Phase One includes a discussion of all of Vulcan Group's licence areas in the Upper Rhine Valley Brine Field (including those that are planned for development in Phase One and Phase

Two), the areas of focus in the DFS for Phase One are the Insheim, Landau-Süd and Rift Nord licence areas (collectively also referred to as "**Lionheart**") and the Taro and Kerner licence area (collectively also referred to as "**Taro area**").

Since 2021, Vulcan Group has systematically explored and sought to develop the project areas. Moreover, Vulcan Group commenced engagement with local stakeholders to enable public acceptance and backing for Vulcan Group's planned LHM and renewable energy projects, as well as timely grant of requisite permits. After the completion of the PFS, Vulcan Group also acquired the Insheim geothermal plant and wells in December 2021 which allowed for detailed evaluation of the brine resource with the existing wells which produce from the target reservoir (see section "9.1.2.3 *Natürlich Insheim GmbH*"). Following the acquisition, Vulcan conducted further exploration work with 3D seismic acquisition at Insheim, reprocessed existing 3D seismic data in Taro, analysed daily brine samples from the operating wells, gathered data from two pilots testing the DLS process, tested the production of LHM from the produced lithium chloride (LiCl) from the pilots, and prepared detailed engineering design for a development plan.

Vulcan Group extensively piloted the DLS process in its Pilot Plant which started operation on geothermal brine in April 2021 and is still operating at two geothermal plants in Vulcan Group's licence area, Insheim and Landau Süd. As part of its Pilot Plant operation, Vulcan Group was able to produce the first battery quality LHM from piloting operations. The plant sample exceeded traditional battery-grade LHM product including, in its view, best-on-the-market battery-grade specifications required from offtake customers, at >56.5% LiOH.H₂O and with very low impurities.

In connection with the DFS, Vulcan Group has also developed its own in-house lithium extraction sorbent, VULSORB™. Vulcan Group has demonstrated multi-cycle sorption tests on Upper Rhine Valley geothermal brine using multiple commercially available and in-house aluminate-based sorbents. All sorbents have demonstrated >90% lithium recovery, in line with the assumptions used in the PFS. Data from VULSORB™ has been incorporated into Vulcan Group's DFS. Furthermore, Vulcan Group has also initiated construction of its LEOP in order to train staff on the operation in a pre-commercial setting. In December 2022, the state government of Rheinland-Pfalz approved Vulcan Group's operating plan for the LEOP. Vulcan Group targets for the LEOP to become operational by mid-2023.

The DFS for Phase One identified a total lithium resource estimate of 26.6 Mt LCE at a grade of 175 mg/l Li (comprising 10.1 Mt LCE of measured and indicated mineral resources and 16.5 Mt LCE of inferred mineral resources, and including proven and probable ore reserves of 0.54 Mt LCE in Phase One licences only), which is currently estimated by the Company based on publicly listed companies developing lithium projects in Europe and having defined a lithium resource, to be the largest lithium resource in Europe reported in accordance with JORC (based on lithium-focused peers with published resource information; see section "2.10 *References regarding mineral resources, ore reserves and production targets*" and the Competent Person Report for information about the Company's mineral resources, ore reserves and production targets (including forecast financial information based on production targets) included in this Prospectus). The overall resource/reserve estimates for the licence areas covered by the DFS represent an increase compared to those included in the PFS.

It has been estimated that the Zero Carbon Lithium™ Project has an estimated lithium recovery period of 30 years.

For further information (including as it relates to Vulcan Group's approach towards and the results of the DFS), see the Competent Person Report included in this Prospectus.

9.1.3.3 Implementation of the Zero Carbon Lithium™ Project based on the DFS for Phase One

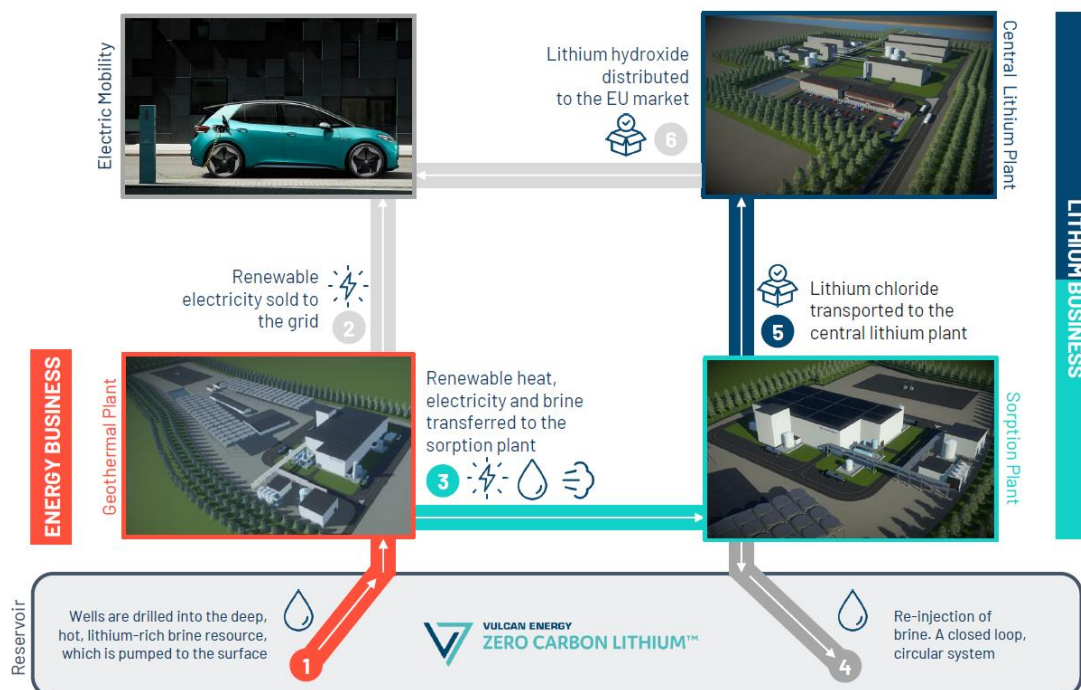
The planned project execution for the DFS is based on Vulcan Group's patented production process flowsheet (see section "9.12 *Intellectual Property*"), which was developed in connection with Vulcan Group's PFS and comprises the following three steps each occurring at a different plant:

1. *Binary Cycle Geothermal Plant*: Hot brine is extracted from the ground and generates steam that powers turbines and produces renewable electricity using standard geothermal production.
2. *DLS Plant*: Brine flow is diverted, and lithium is extracted from the solution using the sorption-type DLS process which has been used commercially for decades on continental-style brines in South America, and more recently in China.

3. *Central lithium plant:* Lithium chloride is then sent to the lithium refining plant to be converted into battery-quality LHM, using lithium electrolysis.

Vulcan Group's process flowsheet

The following simplified image illustrates the Zero Carbon Lithium™ Project:



Vulcan Group's planned production process starts with the brine enriched geothermal fluid produced at the geothermal plant where heat is transferred and utilized for geothermal power generation at the Organic Rankine Cycle (ORC) plant. The power is utilized by the plant itself, providing a green renewable power source. The slightly cooled brine is sent to the LEP where it is sent to the DLS system. The lithium chloride is recovered on a selective alumina-based sorbent and purified. The concentrated lithium chloride is then transferred to the CLP for conversion to LHM.

Vulcan Group's Zero Carbon Lithium™ Project is designed to be the world's first zero Scope 1 fossil fuels, net zero Scope 1, 2 and 3 GHG emissions and low water consumption project.

Pursuant to the DFS, the implementation of Phase One includes the construction of:

- two new geothermal plants (Lionheart and Taro area, respectively) which (together with the existing Insheim Plant) are planned to have combined annual production targets of more than 300 GWh of energy and more than 250 GWh of heat;
- two LEPs (Lionheart and Taro area, respectively) with a targeted annual production capacity of 8,000 and 16,000 metric tonnes, respectively, of LHM; and
- a CLP with a targeted annual production capacity of 24,000 metric tonnes of LHM.

The production target of 24,000 metric tonnes of LHM represents an increase of more than 60% compared to the production target for Phase One included in the PFS.

While the DFS for Phase One envisions that Phase One would include the construction of two geothermal plants and two LEPs (in addition to the CLP), Vulcan Group is currently pursuing a number of value improvements during the ongoing bridging engineering work with Hatch Ltd with the goal of consolidating these into one geothermal plant and one LEP (in addition to the CLP) while targeting the same level of production as envisioned in the DFS.

Based on the DFS, the Zero Carbon Lithium™ Project is expected to generate more than EUR 700 million in annual revenues (20-year average), corresponding to an increase of more than 200% compared to the revenue estimates included in the PFS.

The total capital expenditure (not including financing costs) required for Phase One of the Zero Carbon Lithium™ Project is expected to be approximately EUR 1,496 million (including contingencies), EUR 657 million of which is expected for the development of the renewable energy business and EUR 839 million of which is expected for the development of the lithium business, representing an increase of 34% (measured on a per tonne of LHM-basis) compared to the capital expenditure estimates included in the PFS. However, the exact amount of future capital requirements may significantly deviate from Vulcan Group's estimates and additional funds may be needed to fully develop the Zero Carbon Lithium™ Project and extract and process the lithium and geothermal energy. In particular, as the Company has not completed a definitive feasibility study in relation to Phase Two, there remains significant uncertainty regarding the funding requirements for Phase Two.

Vulcan Group's LHM production is targeted to entail average operating expenditure (excluding corporate overhead costs) of approximately EUR 4,359 per tonne of LHM (including EUR 2,656 per tonne for the DLS process at the LEPs and EUR 1,704 per tonne for processing at the CLP (electrolysis)). In Vulcan Group's view, based on Fastmarkets 2025 onwards projections of the lithium market (as per the Fastmarkets Analysis), the DFS has demonstrated that its Zero Carbon Lithium™ Project has the potential to be one of the lowest cost operations in its field.

The DFS estimates the Zero Carbon Lithium™ Project to generate an EBITDA (20-year average) of close to EUR 600 million per year (translating into an EBITDA margin of 84% on a 20-year average basis) whilst cash flows are estimated to amount to around EUR 436 million per year (20-year average).

These financial estimates and targets translate, pursuant to the DFS for Phase One, into a net present value using a discount rate of 8% ("**NPV₈**") of the Zero Carbon Lithium™ Project amounting to EUR 3.9 billion (pre-tax) and EUR 2.6 billion (post-tax), corresponding to an increase of more than 250% compared to the NPV₈ estimates included in the PFS. The estimated internal rate of return ("**IRR**") calculated by the DFS for Phase One amounts to 34% (pre-tax) and 26% (post-tax), respectively, corresponding to an increase of more than 40% compared to the IRR estimates included in the PFS.

9.1.3.4 Funding and SPVs

Subject to finalising the funding plan, Vulcan Group expects to finance the Zero Carbon Lithium™ Project through a combination of green financing and, potentially, syndicated senior debt, hybrid debt, equity investment from third parties at the level of project-related special purpose vehicles (project level) and/or further equity fundraising in the capital markets at the parent level (if needed). Vulcan Group is already in discussions with potential finance parties (some of whom have provided written in-principle support for the provision of senior debt for the Zero Carbon Lithium™ Project). Vulcan Group is targeting to fund approximately 65% of the Phase One capital expenditure requirements through debt financing and to fund the balance through equity funding (including at the project level).

The economic analysis included in the DFS for Phase One, including the financial estimates and targets, relate to the Zero Carbon Lithium™ Project in isolation (as opposed to Vulcan Group) and are based on the assumption that the Zero Carbon Lithium™ Project will be developed in designated corporate entities (special purpose vehicles or "**SPVs**"). The SPV-structure is intended to enable the Company – in addition to other available funding options – to obtain third-party funding for the further development of the Zero Carbon Lithium™ Project directly by the SPVs, i.e. on the project-level. Vulcan Group has conceptually split the plants and infrastructure for Phase One into two SPVs: one SPV in respect of the CLP (currently expected to be Vulcan Projektgesellschaft 1 GmbH), and another SPV in respect of the plant and infrastructure associated with the production of renewable energy and LHM other than the CLP, including land, wells, pipelines and geothermal and lithium extraction plants (currently expected to be Natürlich Südpfalz GmbH & Co. KG). In April 2023, the Company signed a term sheet regarding a proposed strategic partnership with Nobian GmbH ("**Nobian**"), for the formation of a proposed 50/50 joint venture over, and equity financing of, Vulcan Group's CLP. The proposed strategic partnership is subject to the parties entering into definitive agreements. The planned CLP is contained within a joint venture special purpose vehicle ("**SPV**") referred to as SPV 2, and the term sheet provides that, subject to execution of definitive agreements and the satisfaction of other conditions, Nobian shall contribute EUR 161 million in cash as equity to

fund capital expenditure for the CLP, to acquire 50% of SPV 2 joint venture, on the basis of an agreed valuation of EUR 322 million for the CLP SPV 2. The parties shall use reasonable endeavours to execute the definitive agreements which contain materially the terms set out in the term sheet, within ten weeks following the execution of the term sheet. Termination by either party will be possible after ten weeks if the definitive agreements have not been executed by that date. The parties are under no obligation to proceed and implement the transaction in part or in full unless the definitive agreements have been executed. Other material terms of the term sheet include: (i) Nobian will make an initial contribution of EUR 15 million upon execution of the definitive agreements and will make subsequent contributions upon the satisfaction of certain milestones; Nobian's shareholding in SPV 2 shall (at each point in time) reflect the proportion of Nobian's contributions which have been unconditionally committed to SPV 2; (ii) the milestones and timing to trigger equity contributions to SPV2 are not prescribed in the term sheet and will be jointly defined in the definitive agreements; the timing will be in line with Vulcan Group's current development timeline, as published in the DFS for Phase One; (iii) execution of the definitive agreements is conditional upon satisfactory completion of confirmatory legal, business, commercial and technical due diligence by Nobian and approval of the definitive agreements by Nobian's and by the Company's board of directors and/or other competent corporate bodies, as applicable; (iv) the definitive agreements will also be subject to approval of the transaction and definitive agreements by public authorities (e.g. merger control), if so required; (v) during the term of the term sheet, the parties have given mutual exclusivity rights to negotiate with one another in respect of the transaction; (vi) the parties will work together on future expansions of capacity of the CLP, in line with Vulcan Group's stated development plans. There can be no assurance that the parties will execute definitive agreements, and any final definitive agreements to be entered into remain subject to negotiation and may be on terms that are different to those set out in the term sheet. Vulcan Group intends to deploy a similar strategy as with the CLP to obtain project-level equity investment for the SPV owning the plant and infrastructure associated with the production of renewable energy and LHM other than the CLP, including land, wells, pipelines and geothermal and lithium extraction plants; however, it has not yet entered into any agreements or term sheets with respect to such investment.

Regarding debt financing, Vulcan Group is engaging with a number of institutions including the European Investment Bank (EIB), Export Credit Agencies (ECAs) and commercial banks, and has received non-binding in-principle support for financing of Phase One from several ECAs. Vulcan Group has appointed BNP Paribas to assist it with a bankability study and advise Vulcan Group on its project financing process. As at the date of this Prospectus, Vulcan Group has not entered into any relevant agreements in relation to debt financing for funding of the Zero Carbon Lithium™ Project.

For further detail with respect to Vulcan Group's financing plans, see section "6.2.7 Vulcan Group's financing arrangements".

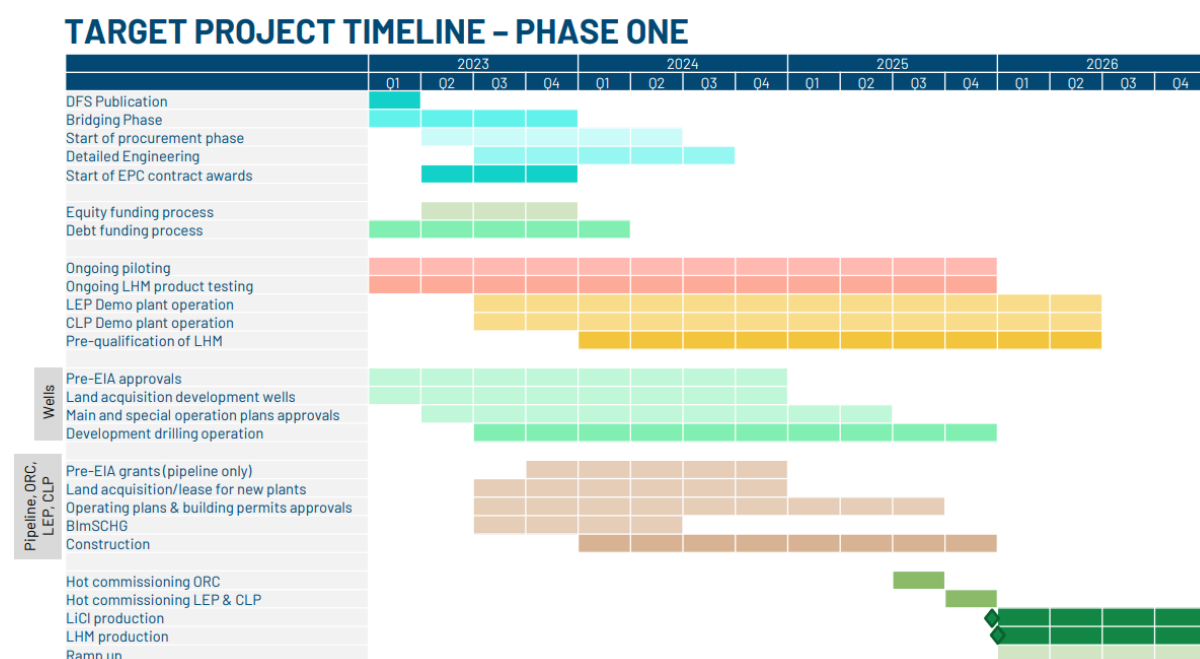
9.1.3.5 Phases and timeline

Based on Vulcan Group's DFS, Vulcan Group currently aims to implement the Zero Carbon Lithium™ Project for a production start separated into two phases, with a start date for the first phase at year-end 2025 and for the second phase in 2026/27. For the next five years, Vulcan Group has the following key measures planned, which the Company expects to commence at the indicative times as set forth below.

- Short-term objectives
 - Complete the Private Placement.
 - LEOP and central lithium electrolysis optimisation plant to commence operation and produce first tons of LHM.
 - Commence development drilling to increase brine production from Phase One areas.
 - Obtain relevant permits in line with development timeline.
 - Work with financial advisors to progress additional financing (equity, debt, public grants) for the construction of Vulcan Group's projects.
 - Build and deliver project execution model.

- complete definitive feasibility study for Phase Two.
- Medium-term and long-term objectives
 - 2023-2025: Construction and commissioning of two geothermal energy plants (Lionheart and Taro area, respectively) and two LEPs (Lionheart and Taro area, respectively), as well as a CLP at the Höchst Chemical Park (*Industriepark Höchst*), Frankfurt am Main, Germany, for LHM production, in line with the DFS for Phase One.
 - Late 2025: Commencing commercial production of battery quality lithium products (Phase One).
 - 2025-2026: Expansion of commercial production in line with the expected growth in the European BEV market.
 - 2026/27: Commencing commercial production of battery quality lithium products (Phase Two).
 - 2025 onwards: Evaluation and pursuit of global business development opportunities to establish other geothermal-lithium production areas with a net zero carbon footprint.

The following timeline illustrates the various expected stages for the implementation of the Zero Carbon Lithium™ Project.



With its DFS for Phase One completed, the Company is currently moving into a bridging engineering phase, assisted by Hatch Ltd, and transitioning to project execution.

Vulcan Group intends to have its DFS for Phase One followed by a definitive feasibility study for Phase Two including the Mannheim and Ortenau licence areas (expected to be completed during the course of 2023). Moreover, Vulcan Group intends to plan further phases across Vulcan Group's licence area, as Vulcan Group plans to grow production in a staged, modular fashion.

For further information (including as it relates to the economic analysis included in the DFS), see the Competent Person Report included in this Prospectus.

9.2 Competitive Strengths

Vulcan Group believes that the following competitive strengths will allow it to execute its business strategy and will set it apart from its competitors in the future:

9.2.1 Clear goal and strategy built around implementing the world's first net zero carbon footprint lithium production project.

Vulcan Group believes that its proprietary processing technology, combined with its dual purpose geothermal-lithium resource in the Upper Rhine Valley (see section "9.5.3 Upper Rhine Valley"), will allow it to produce lithium chemicals with a net zero carbon footprint. Vulcan Group's proprietary process aims to allow for quick processing time by using direct precipitation, for which the evaporation process is driven by steam in contrast to sunlight for solar evaporation, enabling Vulcan Group to be responsive to market needs, unlike current South American salt flat production ("**Salar**") which takes longer (up to 18 months), is more carbon-intensive and is vulnerable to weather events. Salar lithium operations in South America are typically carried out at over 3,000m above sea level and use large quantities of soda ash mined in the USA (which need to be transported to remote locations), resulting in a substantial carbon footprint. Salar operations also use large amounts of water (up to 470m³) in some of the driest places on earth (source: Minviro). In contrast to current hard-rock lithium operations, which generally have a high carbon footprint due to their processing methods and long transport distance to customer markets, the location of Vulcan Group's dual purpose geothermal-lithium project in the Upper Rhine Valley gives Vulcan Group's Zero Carbon Lithium™ Project the potential advantage of a very short product transport distance for servicing the German and European automotive industry. Vulcan Group's Zero Carbon Lithium™ Project is also located in the heart of the EU's emerging battery and cathode "mega" and "giga" factories, and within easy range of electric transport to battery and cathode factories, such as Saft Group S.A.'s lithium-ion battery factory in Nersac, France, and Northvolt's factory to be constructed in Salzgitter, Germany, as a part of its partnership with Volkswagen. As the majority of the global lithium supply is controlled by just five companies, all operating from outside of Europe (see section "8.11 Competitive landscape and outlook"), Vulcan Group's business aims to fill the market gap in Europe, where OEMs are currently still reliant entirely on imported lithium products, in particular from China, accounting for 80% to 90%, as well as South America (source: Fastmarkets Analysis, see section "8. INDUSTRY OVERVIEW").

The Company expects that the implementation of an integrated lithium chemicals production and renewable energy business will make Vulcan Group's Zero Carbon Lithium™ Project the world's first net zero carbon footprint lithium chemicals production project. At a time of increasing global focus on decarbonisation across all supply chains, Vulcan Group intends to capitalise on its first mover position, in particular as a favoured supplier to European buyers of lithium chemicals, who have publicly stated their intention to prioritise sustainable sources of lithium (source: S&P Global Platts 2). It also means Vulcan Group could be potentially positively exposed to a rising carbon price, if carbon pricing is factored into the lithium supply chain. Vulcan Group aims to become the world's first lithium chemicals and renewable energy producer with a net zero carbon footprint for the burgeoning European BEV market, which the Company believes is a clear selling point for EV-producing manufacturers which Vulcan Group intends on assisting in reaching their sustainability targets by offsetting CO₂ against the rest of their supply chain (see section "8.10 Benefits of low emissions lithium"). Additionally, Vulcan Group's Zero Carbon Lithium™ is a brand that it has registered as its trademark. As such, Vulcan Group is able to licence the trademark it owns to customers, allowing them to show electric vehicle consumers that they are working on improving their carbon footprint by working with suppliers offering greener and more sustainable products.

Vulcan Group believes that market trends and macro-policy settings underpinning Vulcan Group's Zero Carbon Lithium™ Project continued to strengthen in the recent past and Vulcan Group expects these trends and developments to provide further tailwinds to its goal to implement the world's first net zero carbon footprint lithium production project.

9.2.2 Well-positioned to capitalise on the expected dynamic transition to electric mobility and renewable energy in Europe, through the ability to offer a sustainable lithium product from its Zero Carbon Lithium™ Project.

Vulcan Group believes that the anticipated significant growth in demand for electric vehicle batteries and energy storage batteries (based on Fastmarkets Analysis, see section "8. INDUSTRY OVERVIEW") will be a key driver for the expected growth for the demand for battery-quality lithium chemicals in Europe. Subject to successful development of its Zero Carbon Lithium™ Project, with a secure, domestic lithium supply in the Upper Rhine Valley of Germany for the burgeoning European BEV market (see section "9.2.4 Strategically located and scalable lithium raw materials resource,

estimated by the Company to be the largest lithium resource in Europe."), Vulcan Group believes it is well-positioned to capitalise on the strong growth anticipated in lithium consumption by end markets, primarily including the BEV market.

Vulcan Group also believes the supportive comments on the European Green Deal (see section "11.1.1 New Battery Regulation Proposal") by President of the EU Commission, Ursula von der Leyen, in January 2023 further cements the growth market conditions for battery metals in Europe.

The strong growth prospects in lithium end markets are driven by the combination of a number of market tailwinds, including increase in demand, policy support and end-users' manufacturing plans (see section "8.9 European battery manufacturing"). Global sales volume of BEVs is forecast to increase at 33% per year from 2021 to 2025, with equivalent lithium-ion battery production increasing from 244GWh in 2021 to 968GWh by 2025 (source: Macquarie). Correspondingly, the lithium-ion battery is expected to be the fastest growing rechargeable battery technology due to increasingly strong penetration rates in the BEV market and a fall in manufacturing costs (source: Fastmarkets Analysis, see section "8. INDUSTRY OVERVIEW"). The global annual consumption of lithium is expected to reach 3.7 million tonnes in 2030 (source: Reuters). From just 8.3 GWh capacity in 2020, European capacity is forecast to rise to over 1,200 GWh by 2030 (source: Fastmarkets Analysis, see section "8. INDUSTRY OVERVIEW"). This is accompanied by the number of facilities increasing from three in 2019 to a possible 37 from 2030 onwards. With an expected lithium loading in batteries of 0.64 kg of LCE per kWh in 2030, taking into account changing battery chemistries, this would equate to lithium demand in Europe rising to 0.81 million tonnes LCE in 2030 (source: Fastmarkets Analysis, see section "8. INDUSTRY OVERVIEW").

Vulcan Group's lithium resource in the Upper Rhine Valley and its extraction and processing expertise, combined with the availability of renewable heat to drive the process, potentially position Vulcan Group to be able to manufacture a product with low impurities to meet stringent demands of major battery materials manufacturers. Automotive OEMs have announced plans to introduce longer-range BEV models using higher energy density batteries and are increasingly doing so by moving to high nickel content cathode materials (source: Fastmarkets Analysis, see section "8. INDUSTRY OVERVIEW"). The energy density (or specific energy, energy per mass) of LHM exceeds that of lithium carbonate. This shift will therefore increasingly require battery-grade LHM in the production of cathode materials. As a result, battery-grade LHM is expected to be the fastest growing product type in terms of annual consumption, respectively, overtaking lithium carbonate demand as early as 2022 (source: Canaccord 1).

9.2.3 A business model with dual revenue sources through its lithium and renewable energy business that also provides potential for a degree of insulation from energy price fluctuations.

Vulcan Group plans to produce and sell both lithium chemicals for the battery market and renewable energy (heat and power), with lithium sales providing most of the expected revenue. Vulcan currently intends to sell the electricity produced by the geothermal plants to the grid at the feed-in tariff or higher market prices. Moreover, Vulcan Group expects to utilise a portion of the heat produced by the geothermal plants for its lithium extraction operations, with the remainder sold directly to third-party customers, which Vulcan Group expects will primarily consist of local municipalities and businesses. Through such potential for insulation from energy price fluctuations and diversification of revenue, Vulcan Group expects, unlike other traditional suppliers, to be able to mitigate its dependency on both the lithium and energy price environments to a greater degree than traditional lithium suppliers, who are focused solely on lithium production and largely dependent on external energy supply. Prices for both lithium and energy have been, and may continue to be, volatile. Vulcan Group expects that prices for lithium compounds will continue to be influenced by various factors, including worldwide supply and demand as well as the business strategies of major producers. With access to a large scale and stable supply of lithium raw materials from a source that may also be exploited for the production of renewable energy, the Company believes that Vulcan Group is well positioned to diversify its business while avoiding a dependency on energy prices or a single source of revenue.

9.2.4 Strategically located and scalable lithium raw materials resource, estimated by the Company to be the largest lithium resource in Europe.

Access to an adequate supply of lithium raw materials is crucial to achieving business size and growth and vital for Vulcan Group's stable business operations in the lithium products industry. Vulcan Group has a total lithium resource estimate of 26.6 Mt LCE at a grade of 175 mg/l Li (comprising 10.1 Mt

LCE of measured and indicated mineral resources and 16.5 Mt LCE of inferred mineral resources, and including proven and probable ore reserves of 0.54 Mt LCE in Phase One licences only), which is currently estimated by the Company based on publicly listed companies developing lithium projects in Europe and having defined a lithium resource, to be the largest lithium resource in Europe reported in accordance with JORC (based on lithium-focused peers with published resource information; see section "2.10 References regarding mineral resources, ore reserves and production targets" and the Competent Person Report for information about the Company's mineral resources, ore reserves and production targets (including forecast financial information based on production targets) included in this Prospectus). This large size means that, subject to the right geological conditions and availability of suitable land, Vulcan Group potentially has the ability to scale up its operations with the addition of more geothermal-lithium operations in the future while maintaining a stable supply of lithium raw materials. This is in contrast to smaller, hard-rock lithium projects in Europe (for example pegmatite-hosted spodumene deposits) which, due to their size, have limited ability to scale up operations in the future, and require chemical conversion capacity which does not currently exist. Additionally, hard-rock lithium projects have a significant surface impact from mining operations, which makes new projects unpopular in Europe. With access to a European source for lithium brine extraction, Vulcan Group has secured a strategically located lithium raw materials source which positions it well to develop a potentially scalable business (see section "8.2 Historic lithium supply").

9.2.5 Potential to be a low operating cost lithium business, according to Vulcan Group's DFS.

The DFS for Phase One has demonstrated that, due to the availability of pre-heated brine and steam, and therefore reduced energy costs – as well as the availability of brine from the geothermal operation for use in the lithium operation without incremental cost – the planned Zero Carbon Lithium™ Project is expected to have low operating costs once in production in comparison to competitors (see section "8.6 Lithium production costs"). Brine lithium production is typically cheaper than lithium production in hard-rock operations. This is primarily due to lower energy requirement during extraction, and in this case this is expected to be lower still due to the availability of heat in the brine. This is due to the location of brine deposits in areas that are typically flat and arid, making extraction easier. In addition, lithium brine is not located as deep as hard-rock deposits, allowing for surveys and initial extraction at a shallower depth. This presents an opportunity for an attractive proposition in a European market, which currently has only small or complex hard-rock projects. In addition, Vulcan Group has developed a proprietary processing technology for brine operations that significantly reduces the time from pumping brine to processing, whilst using zero Scope 1 fossil fuels to power the process. This reduction in production time compares favourably to a conventional Salar evaporation process. In addition, Vulcan Group has established its own in-house geothermal drilling company with its subsidiary, Vercana, and added approximately 46 personnel to Vulcan Group's in-house development drilling team through the acquisition of Comeback. Each of these factors give Vulcan Group a potential competitive advantage over other, high-cost sources of lithium supply in the future.

9.2.6 Experienced and committed international management and execution team.

Vulcan Group has a strong and experienced management team. Vulcan Group was founded by sector experts Dr Francis Wedin, the Managing Director/CEO of the Company and a geologist with a background in lithium exploration, and Dr Horst Kreuter, the managing director of Vulcan Energie, the Company's direct subsidiary in Germany, and a geologist with an extensive background in geothermal project development, including having founded the first geothermal development company in Germany.

Vulcan Group also has a strong management team overseeing its different business sectors from a variety of different sectors and backgrounds related to Vulcan Group's business, including large scale energy infrastructure development, commercial lithium industry, chemical engineering, geothermal development and operations. These include Vulcan Group's deputy CEO Cris Moreno, Chief Commercial Officer Vincent Ledoux Pedailles, Vice President Production Christian Tragut, Chief Technical Officer Dr Stefan Brand, Chief Operative Officer Thorsten Weimann, VP Operations Christian Tragut, Head of VSS Tobias Hochschild and Head of VEE Markus Ruff. Vulcan Group has a diverse skill set and experienced Board of Directors, including a senior executive of Evonik and a former Tesla executive and Ernst & Young ("EY") senior partner who led and delivered the EY Global Renewables and Sustainable Business Plan. In addition, Vulcan Group has a capable and experienced technical team across the fields of geothermal energy development, including geology and engineering, and lithium extraction (chemistry and chemical engineering). Both the fields of deep

geothermal energy development and DLS are specialised industries, with a relatively small pool of expertise. Having this expertise in-house places Vulcan Group at a potential competitive advantage.

9.2.7 Dedicated "Vulcan Values" shape the Company's culture and inform the Company's strategy

Vulcan Group has defined four core values, referred to as "Vulcan Values", which shape the Company's culture and inform the Company's strategy. The "Vulcan Values" include integrity, leadership, future-focus and sustainability. Integrity aims at acting respectfully and transparently and, by doing so, earning trust. Leadership includes working to the highest levels of safety, quality and efficiency. The focus on the future drives the Company to disrupt and innovate to build a better future. And sustainability is intended to achieve economic progress through sustainable growth and environmentalism. The "Vulcan Values" help the Company to stand out in the "war for talent", allowing it to recruit and retain the talent and expertise needed for the development of its Zero Carbon Lithium™ Project (see section "9.8 Environmental, Social and Governance (ESG)").

9.2.8 Access to capital markets, proven ability to obtain funding to execute its business strategy and to implement the Zero Carbon Lithium™ Project and distinct international profile.

The Company believes that its access to both Australian capital markets and to European and wider international capital markets through its listings in both Australia and Germany position it well to obtain the funding required to execute its business strategy and to implement the Zero Carbon Lithium™ Project.

The Company has been listed on the ASX since May 2018, initially with a company name of Koppar Resources Limited (ASX Code: KRX) and since September 2019 as Vulcan Energy Resources Limited (ASX Code: VUL). The Company's listing on the ASX has allowed the Company and Vulcan Group's Zero Carbon Lithium™ Project to gain additional visibility among the Australian investment community and beyond and to gain access to capital markets in Australia. In 2021, the Company was included in the S&P Dow Jones Indices ASX300 Index which includes 300 of Australia's largest companies by (float-adjusted) market capitalisation and the PWC Australia ASX "Mid-Tier 50" (MT50) list which includes the largest ASX-listed mining companies outside the S&P/ASX 50 Index. Since its listing on the ASX, the Company has successfully executed a number of equity placements with existing and new investors including a placement to sophisticated and institutional investors of EUR 124 million on 22 September 2021, a placement to sophisticated and institutional investors of (combined) A\$120 million in February and June 2021, respectively, and a EUR 2 million issuance to existing shareholders in Australia and New Zealand under a share purchase plan on 18 October 2021, evidencing Vulcan Group's ability to obtain funding to execute its business strategy and to implement the Zero Carbon Lithium™ Project.

Moreover, since the completion of its listing on the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*), the Company believes that it is the first Australian company to have a listing on the regulated market of the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*). In the Company's view, its dual-listing on both the ASX and the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*) has increased the international profile of Vulcan Group and enabled access for investment into the Company for the full range of the European and broader investment community. This has been evidenced by a recent equity placement to Stellantis in an amount of EUR 50 million on 28 June 2022 (see section "12.2.2 Selected current issuances of Shares"). The Company believes that the funding obtained through the placements to sophisticated investors and the share purchase plan as well as the funding expected to be obtained through the Private Placement will accelerate and expand the implementation of Vulcan Group's integrated renewable energy and lithium development strategy.

Going forward, Vulcan Group expects to finance the Zero Carbon Lithium™ Project through a combination of green financing and, potentially, syndicated senior debt, hybrid debt, equity investment from third parties at the level of project-related special purpose vehicles (project level) and/or further equity fundraising in the capital markets at the parent level (if needed). Vulcan Group is targeting to fund approximately 65% of the Phase One capital expenditure requirements through debt financing and to fund the balance through equity funding (at the project level). Vulcan Group is already in discussions with potential finance parties (with non-binding in-principle support and confirmation of eligibility for the provision of funding for the Zero Carbon Lithium™ Project received from several Export Credit Agencies, including in France, Italy and Canada, subject to certain conditions). The Company is in the process of finalising its funding plan for Phase One based on the

DFS for Phase One and is targeting completion of the debt and equity financing process for Phase One in the first quarter of 2024. It expects to finalise its funding plan for Phase Two following the completion of its definitive feasibility study for Phase Two (expected to be completed during the course of 2023). See section "6.2.7 *Vulcan Group's financing arrangements*" above (Vulcan Group's financing arrangements) for a further discussion of Vulcan Group's anticipated financing arrangements.

9.3 Strategy

Vulcan Group is aiming to become the world's first lithium chemicals and renewable energy producer with a net zero carbon footprint targeting commencement of commercial production at year-end 2025. With its Zero Carbon Lithium™ Project, Vulcan Group intends to produce a battery-quality LHM chemical product from its combined geothermal energy and lithium resource, which is estimated to be Europe's largest lithium resource (based on lithium-focused peers in Europe with comparable project size at a comparable stage of development and published resource information), as estimated and reported in accordance with the 2012 Edition of the JORC Code (source: Vulcan Energy Resources Ltd, Vulcan Zero Carbon Lithium™ Project Phase One DFS Results and Resources-Reserves Update, ASX Release, 13 February 2023; see section "2.10 *References regarding mineral resources, ore reserves and production targets*" and the Competent Person Report for information about the Company's mineral resources, ore reserves and production targets (including forecast financial information based on production targets) included in this Prospectus). Vulcan Group's unique Zero Carbon Lithium™ Project aims to produce both renewable geothermal energy, and LHM, from the same deep brine source. In doing so, Vulcan Group intends to address the European market's lithium requirements while reducing the high carbon and water footprint of production (as compared with other methods of lithium production) and addressing the European market's current total reliance on imports. In particular, Vulcan Group aims to supply the BEV market in Europe. The Zero Carbon Lithium™ Project, which is based on a thirty year project, asset and infrastructure life, has an estimated resource which could potentially meet a significant part of Europe's needs for the electric vehicle transition, from a source with a net zero carbon footprint. In order to achieve this, Vulcan Group has adopted a strategy designed to capitalise on its competitive strengths. The key elements of Vulcan Group's strategy are as follows:

9.3.1 Ensure local support from stakeholders for the Zero Carbon Lithium™ Project

For every decarbonisation or renewable energy project, it is vital that there is a tangible benefit to the local area and communities. Vulcan Group is aiming to build multiple renewable energy and sustainable lithium extraction operations across numerous regions and communities in the Upper Rhine Valley. Vulcan Group intends to supply these communities with renewable heat and power, and will supply European battery makers and auto-makers with sustainable lithium, thus assisting with decarbonisation efforts, in an area already significantly affected by climate change. In addition, by setting up local, project-based companies for each renewable energy plant location, Vulcan Group aims to ensure that the taxes for its project companies are levied at a local level and more generally that there is a direct local benefit of its projects.

In addition, Vulcan Group is continuously expanding its community outreach by engaging with the community members, local and municipal councils, state and federal governments as well as regional media. Vulcan Group appointed regional managers in Ortenau, Südpfalz and Kurpfalz overseeing teams of public affairs, communications, and project management professionals. These teams, with local knowledge and expertise, work with the community to ensure Vulcan Group's mission and the Zero Carbon Lithium™ Project is understood and accepted.

9.3.2 Grow the business by investing in the expansion of Vulcan Group's team

Vulcan Group is aiming to enter into production in a short period of time relative to the market standard for typical geothermal projects. By accelerating the necessary growth, Vulcan Group intends to capitalise on the rapidly increasing demand for lithium chemicals in Europe, and capture a market share. To achieve this in the targeted timeframe, Vulcan Group is seeking to further significantly grow its multi-disciplinary team during the coming months and years by adding industry experts in key discipline areas that will be vital to delivering the proposed development plan.

9.3.3 Build-out in a modular fashion to accelerate growth and minimise disruption by capitalising on the teams' experience during project execution

Vulcan Group has acquired two engineering companies with deep expertise in the geothermal business and intends to use the significant experience of its geothermal and lithium teams to

proactively minimise disruption during the construction and build out of its lithium and renewable energy businesses. The Company intends to build out multiple geothermal-lithium operations in a relatively modular fashion across the Upper Rhine Valley. In doing so, Vulcan Group expects to be able to accelerate the development of multiple locations over a short period of time by carrying out the construction required for its patent pending production process developed for the Zero Carbon Lithium™ Project. An advantage of this modular build-out is also that lessons learned from one location can also be applied to other locations.

9.3.4 Further improve Vulcan Group's research, development and innovation capabilities

Vulcan Group intends to invest significant resources in its research, development and innovation efforts. Vulcan Group plans to fully tap into the strength of its geology/geophysics, plant/process engineering, geothermal and lithium technical teams to achieve this. To further improve its advanced brine extraction methods and lithium processing techniques and its technological edge in the global lithium industry, Vulcan Group also plans to strengthen existing and initiate further cooperation with external companies, such as Minviro Ltd., a company which quantifies the environmental impacts of raw material extraction, and Circulor Ltd ("**Circulor**"), utilising their supply chain full traceability and dynamic CO2 solution, as well as with external research institutes, such as the Karlsruhe Institute of Technology ("**KIT**"), the University of Stuttgart and the Technical University of Darmstadt. In particular, Vulcan Group intends to advance its research and development in-house in order to continuously improve its geothermal energy production and mineral processing techniques. Vulcan Group presently has filed applications for a European patent and a Patent Cooperation Treaty ("**PCT**") (international) patent, as well as for related national phase patents, and has registered a German utility model for "a system and process for the production of both battery-quality LHM, and lithium carbonate, from a geothermal brine".

9.3.5 Continue to develop solid and long-term customer relationships and strong ties with the latest developments in lithium end-use markets

Vulcan Group's goal is to become a critical link in its customers' supply chains and an integral component in lithium end markets. Vulcan Group plans to continuously expand its customer base and deepen customer relationships, in particular in Europe, by further enhancing its sales efforts and customer-oriented research and development capabilities. Vulcan Group intends to strengthen its ties with top-tier end customers, in particular cathode, battery and electric vehicle manufacturers and has for this purpose entered into binding lithium offtake agreements with Umicore, Renault, Stellantis, Volkswagen and LG Energy. Together, the volumes of LHM to be delivered under these agreements correspond to the entire expected quantity of the first five years of production from Vulcan Group's Zero Carbon Lithium™ Project.

Vulcan Group is currently in discussions with other potential offtake partners with respect to further LHM production from the project. Overall, it is the Company's goal to have most volumes of battery-grade LHM produced in Vulcan Group's Zero Carbon Lithium™ Project committed under lithium offtake agreements with reputable counterparties. In line with the ESG requirements of end customers, Vulcan Group is undertaking assessments and implementing policies and procedures with the goal of improving transparency across up and downstream supply chains.

Vulcan Group strives to keep in step with the latest industry trends and technological developments in the downstream sectors, enabling it to grasp new market movements in order to continuously optimise its product portfolio and innovate new products to suit its customers' needs.

9.3.6 Develop next generation lithium compounds and advance circular economy approaches to lithium, in line with Vulcan Group's core sustainability values

Vulcan Group believes that the evolution of battery technologies will lead to the adoption of lithium-based applications in the anode and electrolyte within the battery. This evolution will require new forms of lithium to be produced, such as new lithium metal powders or printable lithium products. Vulcan Group intends to continue to invest in its research and development efforts to help create new products, and will also invest with and partner alongside its customers to further their own research and development efforts. In particular, Vulcan Group notes that the precursor product it intends to produce from its LEP, lithium chloride concentrate, can be used as a precursor for lithium metal used in next generation "solid state" batteries (batteries with solid composite cathodes as opposed to liquid gel powered lithium-ion batteries), which are expected to be commercialised by 2030. Utilisation of the Circulor value chain CO2 tracking is also intended to allow Vulcan Group to

continuously monitor the end-product with the ability to work with downstream customers for repurposing, reusing and recycling.

9.3.7 Become a long-term renewable energy partner to the German and European economy

Vulcan Group intends to sell surplus renewable heat production to third-party customers, which Vulcan Group expects will primarily consist of local municipalities and businesses. Vulcan Group believes it is of benefit in the current geopolitical environment to assist the German and European economy with their efforts to replace Russian gas. In April 2022, the Company entered into a binding heat offtake agreement with MVV Energie to sell renewable heat to supply households via heating grids and a series of underground pipes that deliver hot water or steam to buildings in the local community. Moreover, Vulcan Group intends to sell electricity produced by its geothermal plants to the grid. As such, Vulcan Group's renewable energy business aims at being a net contributor to the transition of Germany's power consumption away from fossil fuels and towards more sustainable sources of renewable energy. In addition, in January 2023, the Company signed a phased project agreement with Stellantis, aimed at developing, building, and operating geothermal renewable energy assets to help decarbonise the energy supply for Stellantis' operations in Rüsselsheim, Germany, by providing renewable heat. Under this agreement, the parties agreed that the first phase of the project will include a pre-feasibility study for the construction of geothermal assets for Stellantis' Rüsselsheim facility, carried out by the Vulcan Group and based on existing data. The following phase, if the first phase is successful, will focus on drilling and more advanced studies and development. Stellantis plans to aim to source funding for 50% of the project development after the first phase. Stellantis is aiming to decarbonise and localise its energy supply across its manufacturing facilities. The manufacturing site in Rüsselsheim is owned by Opel Automobile GmbH ("**Opel**"), a subsidiary of Stellantis. The Opel site is located at the city of Rüsselsheim, between Frankfurt a.M. and Mainz, Germany. Its facility is expected to have an annual future heat demand of 117 GWh and an annual future electricity demand of 88 GWh. The Company and Opel also intend to explore the possibility to extract lithium from the geothermal brine.

9.4 Principal business areas

Vulcan Group intends to produce both battery-grade LHM to supply the growing BEV market and geothermal heat and power to mostly be consumed in lithium production and processing, while also selling renewable heat to third-party customers, which Vulcan Group expects will primarily consist of local municipalities and businesses, and potentially renewable power to the grid.

9.4.1 Lithium business

Vulcan Group intends to produce a battery-quality LHM chemical product from its combined geothermal energy and lithium resource located in the Upper Rhine Valley of Germany.

LHM is a fine white powder that can be produced from spodumene or other ores using a high temperature chemical process, or converted from lithium carbonate (Li_2CO_3), or produced from lithium chloride (LiCl) concentrate. Although historically LHM has mainly been used in grease applications, it is fast becoming a crucial raw material for lithium-ion batteries. While lithium carbonate used to represent the majority of the lithium chemicals market demand, the evolution of the cathode technology has prompted a rapid shift towards LHM. In order to improve the energy density of the battery and move away from toxic and cost-intensive cobalt, nickel-cobalt-manganese cathodes producers are reducing their cobalt content and increasing nickel usage. Cathode synthesis using lithium carbonate requires high temperatures, which in turn are incompatible with a nickel content of 60% and above (as opposed to 40% cobalt and manganese). The new generation of nickel-cobalt-manganese cathodes used in lithium-ion batteries, therefore require the use of LHM instead of lithium carbonate in order to allow for a higher nickel content. Accordingly, Vulcan Group's focus will be on supplying high performance battery-grade LHM to the fast-growing BEV market. Vulcan Group has the flexibility to produce lithium carbonate in the future from its LHM production with relatively low additional capital expenditure requirements if battery chemistry demands should change in Europe, and also has the ability to potentially produce a lithium chloride precursor product for lithium metal used in "solid state" battery applications, should there be a market for these in the future.

9.4.2 Renewable energy business

Hundreds of geothermal plants were in operation globally and 42 deep geothermal energy plants were in operation in Germany as of mid-2020 (source: Clean Energy Wire). Vulcan Group intends to produce geothermal energy from brine at various locations throughout the Upper Rhine Valley. In addition to high lithium grades, the Upper Rhine Valley is a deep geothermal brine reservoir with a high brine flow rate and a capability of generating renewable heat. Geothermal brine is a hot, concentrated saline solution that has circulated through very hot rocks and become enriched with elements such as lithium, boron and potassium. The process of pumping brine to the surface at a geothermal plant generates renewable heat which is used to produce electricity. This also allows for an extraction of lithium powered by naturally occurring geothermal energy. Because of its natural conditions, the Upper Rhine Valley is a particularly well-suited location for the operation of geothermal plants. In April 2022, the Company entered into a binding heat offtake agreement with MVV Energie to sell renewable heat to supply households via heating grids and a series of underground pipes that deliver hot water or steam to buildings in the local community (see section "9.16.4 Heat Offtake Agreement with MVV Energie"). In January 2023, the Company signed a phased project agreement with Stellantis, aimed at developing, building, and operating geothermal renewable energy assets to help decarbonise the energy supply for Stellantis' operations in Rüsselsheim, Germany, by providing renewable heat. Under this agreement, the parties agreed that the first phase of the project will include a pre-feasibility study for the construction of geothermal assets for Stellantis' Rüsselsheim facility, carried out by the Vulcan Group and based on existing data. The following phase, if the first phase is successful, will focus on drilling and more advanced studies and development. Stellantis plans to aim to source funding for 50% of the project development after the first phase. Vulcan Group intends to negotiate heat offtake agreements in a number of additional areas.

9.5 Lithium business

9.5.1 Overview

Vulcan Group is developing opportunities to extract lithium chemicals and produce geothermal energy from brine at various locations throughout the Upper Rhine Valley (see section "9.5.3 Upper Rhine Valley").

Vulcan Group holds 16 exploration licences in the Upper Rhine Valley of Germany for areas within the German states of Baden-Württemberg, Rheinland-Pfalz and Hessen as well as a geothermal exploitation licence at the Insheim geothermal plant bringing the total licence area to over 1,583 km² (together, the "**Project Licences**"). In addition, Vulcan Group has applied for an exploration licence in the French region "Les Cigognes", covering an area of 155 km² (15,500 hectares) east of the city of Haguenau. An exploration licence grants the right to explore for, extract to the extent necessary for the planned exploration of, and erect and operate facilities that are required for exploring the resources and for carrying out related activities. The geothermal exploitation licence for Insheim grants the exclusive right to geothermal energy from brine extracted from the site of the Insheim Plant. Vulcan Group is currently at the exploration and development stage and is targeting commencement of commercial production at year-end 2025 (see section "9.1.3.3 Implementation of the Zero Carbon Lithium™ Project"). The Company has developed a proprietary method for the manufacture of battery-grade LHM with net zero carbon footprint.

9.5.2 Vulcan Group's Zero Carbon Lithium™ Project

Vulcan Group's Zero Carbon Lithium™ Project will consist of a process to produce both renewable geothermal energy and LHM from the same deep brine source. Vulcan Group's Zero Carbon Lithium™ Project is in the Upper Rhine Valley geothermal field in Germany, an area endowed with high grade, low impurity, sub-surface geothermal brines. The Upper Rhine Valley brine field has been extensively studied due to its geological and geothermal characteristics, including historical exploration for oil and gas. As a consequence, the Zero Carbon Lithium™ Project is situated in a brine field with considerable amounts of existing seismic and drilling data potentially available for exploration and resource evaluation.

Vulcan Group's Zero Carbon Lithium™ Project represents a combined exploration and development project. The aim is to explore and develop Vulcan Group's Zero Carbon Lithium™ Project to produce battery-grade LHM from geothermal brines. Vulcan Group intends to utilise a direct lithium extraction process for lithium processing, which is less water and carbon-intensive relative to the evaporative method used in Salars and to hard-rock lithium operations which generally have a high carbon footprint due to their processing methods and distance to markets. The temperature of the brines is expected to be an advantage in the development of the processing method providing a source of

renewable heat. As a by-product of the production process, renewable geothermal energy is expected to be generated from dual-purpose wells in order to be partly consumed in lithium production and processing and also to potentially be sold as part of the renewable energy business (see section "9.6 Renewable energy business").

Vulcan Group's Zero Carbon Lithium™ Project, if and when fully operational beyond renewable energy production at the Insheim Plant, aims to combine the operations of extracting lithium-rich geothermal brine in the Upper Rhine Valley, of upgrading lithium through electrolysis to a high purity LHM (LiOH) and of producing geothermal energy (renewable electricity and heat). Thermal water will be used as the energy source, which means that lithium is expected to be extracted from the brine without polluting the environment with emissions, waste material or toxic substances. Vulcan Group's Zero Carbon Lithium™ Project, if and when operational, would benefit from being a lithium project supported by EU-backed group EIT InnoEnergy, the founder and steward of the European Battery Alliance aimed at building an independent, sustainable, and resilient battery industry in Europe. EIT InnoEnergy is supporting Vulcan Group in bringing Vulcan Group's Zero Carbon Lithium™ Project to fruition.

Vulcan Group's lithium division is focused on refining the process of Vulcan Group's planned lithium production flowsheet with the aim of ensuring it has a net zero carbon footprint. In 2022, Vulcan Group's team moved into an expanded laboratory, in order to further their understanding of the lithium processing and improve the process in order to inform the DFS. With equipment, including in-house inductively coupled plasma optical emission spectrometry (ICP-OES) and Ion chromatography (IC) analytical capability, the new laboratory enables Vulcan Group to expand its competencies and centralize its proprietary lithium processes.

Vulcan Group's team has successfully demonstrated multi-cycle sorption tests on Upper Rhine Valley geothermal brine using multiple commercially available aluminate-based sorbents. All sorbents demonstrated >90% lithium recovery. In addition, Vulcan Group has developed VULSORB™, a proprietary sorbent. Offsite lithium electrolysis test work is also ongoing.

9.5.3 Upper Rhine Valley Brine Field

The Project Licences cover locations within the Upper Rhine Valley of south-western Germany (see section "9.5.4 Overview of Project Licences"), a valley composed of sedimentary rocks with evaporite deposits formed within an isolated basin depression. The brine occurs in subsurface, confined aquifers within the Upper Rhine Valley at depths of greater than approximately 2,000 meters below the surface. More specifically, the deep brine aquifers occur in porous sandstone and fluid flow is channelled in fault zones that penetrate down into the altered base. Globally, geothermal brines are relatively common, but the fluids are rarely as lithium-rich as they are in the Upper Rhine Valley.

Vulcan Group has conducted a data compilation and brine sampling program in the Upper Rhine Valley that consisted of a geological compilation and subsurface review of the sedimentary rock; an assessment of the hydrogeological conditions underlying the rock; and collecting and analysing brine samples from the Insheim Plant or neighbouring geothermal wells to verify the historical lithium-brine geochemical results.

As per the DFS for Phase One, and as more fully described in section 9.1.3.2 *Definitive Feasibility Study for Phase One (February 2023)*", Vulcan Group has a total lithium resource estimate of 26.6 Mt LCE at a grade of 175 mg/l Li (comprising 10.1 Mt LCE of measured and indicated mineral resources and 16.5 Mt LCE of inferred mineral resources, and including proven and probable ore reserves of 0.54 Mt LCE in Phase One licences only), which is currently estimated by the Company based on publicly listed companies developing lithium projects in Europe and having defined a lithium resource, to be the largest lithium resource in Europe reported in accordance with JORC (based on lithium-focused peers with published resource information; see section "2.10 References regarding mineral resources, ore reserves and production targets" and the Competent Person Report for information about the Company's mineral resources, ore reserves and production targets (including forecast financial information based on production targets) included in this Prospectus).

9.5.4 Overview of Project Licences

9.5.4.1 Main Project Licences

The following table provides an overview of Vulcan Group's probable ore reserves at the areas of its main project licences.

Exploitation Licences

An exploitation licence (also referred to as a production licence) gives the right to extract freely mineable resources. Vulcan Group holds one exploitation licence for geothermal energy in the Upper Rhine Valley Brine Field.

Licence	Ownership	Expiry / renewal date	Location	Type
Insheim ⁽¹⁾	Vulcan Energie	November 2037	Rheinland-Pfalz, Germany	Exploitation licence (geothermal)

⁽¹⁾ Also referred to as "Insheim Licence". The Insheim Licence and the lithium exploration licence application for the Insheim area (referenced below the table below) relate to the same geographic area but cover different activities (geothermal exploitation vs. lithium/brine exploration).

Exploration Licences

An exploration licence is needed for exploring freely mineable resources. Vulcan Group holds a total of 16 exploration licences for geothermal, brine and lithium in the Upper Rhine Valley Brine Field.

No.	Licence	Ownership	Expiry / renewal date	Location	Type
1	Ortenau II	Vulcan Energie	June 2023	Baden-Württemberg, Germany	Exploration licence (geothermal, brine, lithium)
2/3	Taro Lisbeth ⁽¹⁾	/ Vulcan Energie	August 2025 / September 2024	Rheinland-Pfalz, Germany	Exploration licences (geothermal, lithium)
4	Mannheim	Vulcan Energy Resources Europe Pty Ltd	June 2024	Baden-Württemberg, Germany	Exploration licence (geothermal, brine, lithium)
5	Waldnerturm	Vulcan Energie	December 2024	Baden-Württemberg, Germany	Exploration licence (geothermal, brine, lithium)
6	Ludwig	Vulcan Energie	December 2024	Rheinland-Pfalz, Germany	Exploration licence (geothermal, lithium)
7	Therese	Vulcan Energie	December 2024	Rheinland-Pfalz, Germany	Exploration licence (geothermal, lithium)
8	Kerner	Vulcan Energie	December 2024	Rheinland-Pfalz, Germany	Exploration licence (geothermal, lithium)
9	Löwenherz	Vulcan Energie	December 2024	Rheinland-Pfalz, Germany	Exploration licence (geothermal, lithium)
10 / 11	Flaggenturm / Fuchsmantel ⁽¹⁾	Vulcan Energie	December 2024 / July 2023	Rheinland-Pfalz, Germany	Exploration licences (geothermal, lithium)
12	Ried	Vulcan Energie	July 2025	Hessen, Germany	Exploration licence (geothermal, brine, lithium)
13	Lampertheim	Vulcan Energie	July 2024	Hessen, Germany	Exploration licence (geothermal, brine, lithium)
14	Lampertheim II	Vulcan Energie	July 2024	Hessen, Germany	Exploration licence

						(geothermal, brine, lithium)
15	Rift ⁽²⁾	50 Vulcan Energie, 50 % GET	%	June 2027	Rheinland- Pfalz, Germany	Exploration licence (geothermal, lithium)
16	LiThermEx ⁽³⁾	Vulcan Energie		March 2025	Rheinland- Pfalz, Germany	Exploration licence (lithium)

⁽¹⁾ The Taro/Lisbeth and the Flaggenturm/Fuchsmantel licences relate to the same geographic area but cover different activities.

⁽²⁾ Vulcan Group is co-owner of a geothermal/lithium exploration licence "Rift" (until mid-February 2023 held solely by GET), with 50 % granted to Vulcan Energie by GET and the local mining authority (see section "9.16.7 Rift Agreement with GET").

⁽³⁾ The LiThermEx licence relates to the same geographic area as the Inheim Licence but covers different activities (lithium exploration vs. geothermal exploitation).

See section "2.10 References regarding mineral resources, ore reserves and production targets" and the Competent Person Report for information about the Company's mineral resources, ore reserves and production targets (including forecast financial information based on production targets) included in this Prospectus.

9.5.4.2 Additional Licences / Licence Applications in Italy and France

In November 2022, Vulcan Group started initiatives to expand its exploration licence areas into the Alsace Region of France, which is a natural extension of the Upper Rhine Valley geothermal-lithium brine field. For this purpose, Vulcan Group founded the French entity, Vulcan Energie France SAS ("**VEF**"). In late 2022, VEF applied for its first lithium exploration licence in the region, "Les Cigognes". The requested licence covers an area of 155km² and is located east of the city of Haguenau, France. A decision on the application is expected during the course of 2023. VEF intends to apply for additional licences in the Alsace region of France in the near future.

In December 2022, Vulcan Group entered into a joint-venture agreement with Geysir. Pursuant to the joint-venture agreement, Vulcan Energie and Geysir intend to construct and operate a geothermal energy plant in an isolated area of Geysir's Landau-Süd licence area located in Rheinland-Pfalz (see section "9.5.4 Overview of Project Licences").



In addition, Vulcan Group holds, together with EGP, an exploration licence encompassing an area of 11.46 km² (1,146 hectares) in the Cesano geothermal field located within the Monti Sabatini volcanic region in Italy, approximately 20 km from the city of Rome. Prior to becoming the sole owner of the Cesano licence, the Company entered into a binding collaboration agreement with EGP in July 2022 to develop its exploration activities in Italy and to explore future opportunities for cooperation. Vulcan Group intends, however, to discontinue the collaboration with EGP in the short-term and not further pursue its exploration activities in Italy.

9.5.5 Lithium Offtake Agreements

As of the date of this Prospectus, Vulcan Group has entered into binding lithium offtake agreements with five customers.

- In October 2021, Vulcan Group entered into a lithium offtake agreement with Umicore to sell between 28,000 metric tonnes and 42,000 metric tonnes of battery-grade LHM to Umicore over an initial five-year term with start of commercial delivery initially scheduled for 2025 (but postponed to 2026) (see section "9.16.2.1 Lithium Offtake Agreement with Umicore").
- In November 2021, Vulcan Group entered into lithium offtake agreements with Renault and Stellantis, respectively, to sell to Renault between 29,000 to 49,000 metric tonnes of battery-grade LHM over an initial six-year term (see section "9.16.2.2 Lithium Offtake Agreement with Renault") and to Stellantis between 222,000 metric tonnes and 272,000 metric tonnes of battery-grade LHM over a ten-year term (see section "9.16.2.3 Lithium Offtake Agreement with Stellantis"), in each case with start of commercial delivery initially scheduled for 2026 (but postponed to 2027).
- In December 2021, Vulcan Group entered into a lithium offtake agreement with Volkswagen, to sell to Volkswagen between 34,000 to 42,000 metric tonnes of battery-grade LHM over an initial five-year term, with start of commercial delivery initially scheduled for 2026 (but postponed to 2027) (see section "9.16.2.4 Lithium Offtake Agreement with Volkswagen").

- In January 2022, Vulcan Group entered into a lithium offtake agreement with LG Energy to sell to LG Energy between 41,000 metric tonnes and 50,000 metric tonnes of battery-grade lithium with an initial term of five years and start of commercial delivery initially scheduled for 2025 (but postponed to 2026). Pricing will be based on market prices for LHM (see section "9.16.2.5 Lithium Offtake Agreement with LG Energy").

Together, the volumes of LHM to be delivered under these agreements correspond to the entire expected quantity of the first five years of production from Vulcan Group's Zero Carbon Lithium™ Project. Vulcan Group is also in discussions with other potential offtake partners that have demonstrated interest in securing LHM feed from potential additional phases of Vulcan Group's Zero Carbon Lithium™ Project. Overall, it is the Company's goal to have most volumes of battery-grade LHM produced in Vulcan Group's Zero Carbon Lithium™ Project committed under lithium offtake agreements with reputable counterparties.

The following table provides an overview of the binding lithium offtake agreements entered into by Vulcan Group as of the date of this Prospectus:

Partner	Category	Start & duration	Volume over the duration of the contract (t)
Umicore	Tier one cathode maker	2026 5 years	28,000 to 42,000
Renault Group	OEM	2027 6 years	29,000 to 49,000
Stellantis	OEM	2027 10 years	222,000 to 272,000
Volkswagen Group	OEM	2027 5 years	34,000 to 42,000
LG Energy Solutions	Tier one battery maker	2026 5 years	41,000 to 50,000

In addition, in November 2021, Vulcan Group entered into the geox Agreement, regarding the provision to Vulcan Group of brine from the Landau Plant for the purpose of extracting the lithium contained in the brine with an earliest offtake start date of 30 December 2024 (see section "9.16.5 Brine Offtake Agreement").

9.6 Renewable energy business

Vulcan Group is developing opportunities to produce geothermal energy from brine at various locations throughout the Upper Rhine Valley Brine Field.

9.6.1 Overview and key operational metrics

Vulcan Group commenced operations of its renewable energy business following the acquisition of Natürlich Insheim in December 2021, which operates the Insheim Plant (see section "9.1.2 Recent Acquisitions"). The installed production capacity of the Insheim Plant amounts to approximately 4.8MW of renewable power or 28.5MW thermal energy (currently producing approximately 2.9MW of electricity on average). In addition, Vulcan Group's Zero Carbon Lithium™ Project involves the construction and commissioning of two additional geothermal plants in Phase One, which (together with the existing Insheim Plant) are planned to have combined annual production targets of more than 300 GWh of energy and more than 250 GWh of heat. Further geothermal plants are intended to be constructed for Phase Two.

Vulcan Group currently intends to:

- sell the electricity produced by the geothermal plants to the grid at the feed-in tariff or higher market prices; and
- utilise a portion of the heat produced by the geothermal plants for its lithium extraction operations, with the remainder sold directly to third-party customers, which Vulcan Group expects will primarily consist of local municipalities and businesses.

Electricity sold to the grid is expected to have a fixed feed-in tariff price of EUR cent 25.20 / KWh for 20 years commencing from the commissioning date of each new geothermal plant, based on the subsidised remuneration regime under the German Renewable Energy Act (*Erneuerbare-Energien-Gesetz*) as described in more detail in section 11.2.3 of this Prospectus. In periods where spot prices are above the feed-in tariff level, as has recently been the case, Vulcan Group can sell the electricity produced at the higher spot price, in which case the feed-in tariff acts as a "floor price". After this 20-year remuneration period (or the remaining part of this remuneration period if a geothermal plant was already commissioned), its future revenues for the applicable geothermal plant will depend upon the respective market price for renewable energy. Vulcan Group also intends to sell geothermal energy in the form of heat to third-party customers, which Vulcan Group expects will primarily consist of local municipalities and businesses via pipes, provided they have the necessary proximity.

Vulcan Group is developing its Zero Carbon Lithium™ Project in two phases. Phase One targets a production start of two geothermal plants at year-end 2025 for the Lionheart and Taro areas, respectively, and Phase Two targets a production start of further geothermal plants in 2026/27 in other step-out areas.

9.6.2 Direct Marketing and Grid Connection

Natürlich Insheim has entered into a framework agreement with Pfalzwerke, the former owner of Natürlich Insheim, for a direct marketing agreement ("**DMA**") for the electricity produced in the Insheim Plant. The remuneration under the DMA is based on the respective hourly spot market prices at the EPEX Spot SE in Leipzig ("**EPEX**"). Pfalzwerke receives a direct marketing fee, which is deducted from the revenues obtained from marketing at EPEX. This direct marketing fee amounts to 0.10 EUR/MWh.

Natürlich Insheim has entered into a grid connection agreement with Pfalzwerke Netz AG as the responsible local grid operator. The grid connection agreement has an indefinite term, but can be terminated by Pfalzwerke Netz AG and Natürlich Insheim at any time with one month's notice. Pfalzwerke Netz AG's grid connection was established at a medium voltage level with a voltage of 20 kV.

9.6.3 Heat Offtake Agreements

In April 2022, the Company entered into a binding heat offtake agreement with MVV Energie to sell to MVV Energie between 240,000 MWh and 350,000 MWh of renewable heat per year to supply households in Mannheim, Germany. Delivery is targeted to commence in 2025 with an initial term of 20 years (for additional information, see section "9.16.4 Heat Offtake Agreement with MVV Energie"). With this heat offtake agreement the Company further develops its Mannheim Licence as part of a planned larger Phase Two of the Zero Carbon Lithium™ Project.

In January 2023, the Company signed a phased project agreement with Stellantis, aimed at developing, building, and operating geothermal renewable energy assets to help decarbonise the energy supply for Stellantis' operations in Rüsselsheim, Germany, by providing renewable heat.

9.7 Property

The Company has its registered office at Level 2, 267 St Georges Terrace, Perth, WA 6000, Australia, and its key operational subsidiaries are based in Germany.

The following table provides an overview of the real property owned or leased by Vulcan Group as of 31 December 2022:

Location	Leased / owned	Use	Used by
Level 2, 267 St. Georges Terrace, Perth Western Australia (Australia)	Leased	Office space	Company
Amalienbadstrasse 41, Karlsruhe (Germany)	Leased	Office space	Vulcan Energie
An der RaumFabrik 33c, Karlsruhe (Germany)	Leased	Office space	VESS
An der RaumFabrik 34, Karlsruhe (Germany)	Leased	Office space	Vulcan Energie
Pforzheimer Str. 29, Karlsruhe (Germany)	Leased	Laboratory / Info Center	Vulcan Energie
Industriestraße 2, Landau (Germany)	Leased	Info Center	Vulcan Energie
Julius-Hatry-Str. 1, Mannheim (Germany)	Leased	Info Center	Vulcan Energie
Eutzingen Straße 40a, Landau (Germany)	Leased	LEOP	Vulcan Energie

Elwerathstraße 1, Nienhagen (Germany)	Leased	Drill construction site	VERCANA
Alois-Senefelder-Allee 1, Augsburg (Germany)	Leased	Office space	VEE
Oskar-von-Miller-Straße 2, Landau (Germany)	Leased	Office space	Natürlich Insheim
Hinter der Sandgrube 1, Insheim (Germany)	Owned	Insheim Plant	Natürlich Insheim

9.8 Environmental, Social and Governance (ESG)

Vulcan Group seeks to comply with all relevant environmental laws and regulations, and it has suffered no prosecutions or fines for environmental practices since the inception of the Company.

Sustainability, one of Vulcan Group's "Vulcan Values" which shape the Company's culture and inform the Company's strategy, and ESG more generally are deeply embedded in Vulcan Group's business and strategy (see section "9.3.6 Develop next generation lithium compounds and advance circular economy approaches to lithium, in line with Vulcan Group's core sustainability values"). Vulcan Group's strategy and major plans of action have been guided by climate protection-related considerations, including the decision in 2019 to acquire and develop the Zero Carbon Lithium™ Project.



9.8.1 Audit, Risk and ESG Committee

Vulcan Group believes that it maintains adequate procedures to monitor and assess its environmental impact and obligations and aims to comply with the latest most relevant local and international environmental and social standards, including changing environmental and social standards from time to time. To assist with this, Vulcan Group has formed an independent audit, risk and ESG committee ("**Audit, Risk and ESG Committee**") and appointed an internal ESG lead to continue to strengthen Vulcan Group's ESG framework and strategy. The Audit, Risk and ESG Committee meets regularly to discuss risks and opportunities associated with climate-, environmental-, social- and governance-related matters and subsequently presents these findings at monthly Board meetings, while the ESG lead is responsible for the development, implementation and reporting of Vulcan Group's ESG framework (see section "13.2.4.2 Audit, Risk and ESG Committee").

9.8.2 Sustainability and ESG Framework

In June 2022, Vulcan Group released its sustainability and ESG framework ("**Sustainability and ESG Framework**"), which Vulcan Group regards as essential to delivering on strategic priorities and defining the Company's purpose, strategy, mission and values. With respect to the Sustainability

and ESG Framework, Vulcan Group completed its first materiality assessment, a formal process which involved reviewing global industry trends, benchmarking peers and leaders, and interviewing key external and internal stakeholders to identify material topics with the greatest impact on company, communities and the environment. During this assessment seventeen material topics have been identified and are utilised to focus management, set targets and align strategy.

The Sustainability and ESG Framework defines short and long-term performance objectives linked to sustainability-related considerations for the management team including maintaining an annual carbon neutral certification, an increasing staff satisfaction rate and remaining in the lowest quartile for absolute GHG emissions (Scope 1, 2 & 3 of the Sustainability and ESG Framework). This ensures the prioritisation of sustainability throughout Vulcan Group and that sustainability goals are clearly defined, accountable, and measurable. Vulcan Group has numerous processes and frameworks in place to monitor implementation and performance, including structured and timely feedback from the management team to the Audit, Risk and ESG Committee and the Board of Directors and reliance on third party independent consultancies to provide guidance as to the environmental and social impacts of Vulcan Group's current and planned operations, recommendations to eliminate these impacts provided where they arise and to assist Vulcan with current EU climate-related regulation compliance.

9.8.3 "Zero Carbon" and CO₂ Footprint

9.8.3.1 Defining "Zero Carbon"

Whilst Vulcan Group plans to use zero Scope 1 fossil fuels to power its process, the Company recognises that across any industrial plant development it is impossible to truly have zero GHG emissions, especially during construction.

Vulcan Group defines 'zero carbon' as net zero carbon emissions resulting from the activities undertaken to extract and process lithium from its combined lithium and geothermal brine resource located in the Upper Rhine Valley, Germany. Unlike traditional lithium operations, Vulcan Group aims to not burn fossil fuels in the production and processing exercise. Instead, it will use its own geothermal renewable heat source to drive the process, whilst also selling its own geothermal heat and power to the grid, displacing fossil fuel generated energy. The carbon emissions avoided as a result of the displaced fossil fuel generated energy allows Vulcan Group to define the project as net zero, or 'zero carbon' per the project's trademarked nomenclature, the "Zero Carbon Lithium™ Project".

The Company includes Vulcan Group's net zero carbon position as among its key performance indicators and uses it, along with other key performance indicators, to manage Vulcan Group's business (see section "2.8.3 Other key performance indicators").

9.8.3.2 Vulcan Group's CO₂ Footprint, Sustainability-Related Certifications and ESG Rating

In 2019, Vulcan Group commissioned the first life cycle assessment ("**LCA**") on the environmental footprint of LHM from Minviro, an independent consultancy. Results of an updated LCA estimate using data from Vulcan Group's PFS were published in August 2021, and updated in February 2023 with the data from Vulcan Group's DFS for Phase One, with the latest data estimating net negative 1.7 tonnes of CO₂ emitted per tonne of lithium hydroxide to be produced from the Zero Carbon Lithium™ Project, i.e. the project is planned to be net carbon negative, due to its positive energy balance. This net negative figure is based on the ISO-compliant methodology used by the LCA, but not consistent with IPCC definition of a carbon negative project, the latter of which requires the removal of CO₂ from the atmosphere in a process of carbon sequestration. Therefore, Vulcan Group refers to its Project as "net zero carbon" due to carbon avoidance. Vulcan Group's Zero Carbon Lithium™ Project has the lowest planned carbon footprint in the lithium industry compared to any previously published LCA results (source: Vulcan Energy Resources Ltd, Vulcan Zero Carbon Lithium™ Project Phase One DFS Results and Resources-Reserves Update, ASX Release, 13 February 2023; Minviro). The LCA was conducted according to ISO-14040:2006 and ISO-14044:2006 standards and included a third-party expert review. LCAs will be updated at regular intervals going forward.

In March 2021, Vulcan Group announced that it intends to use the full traceability and dynamic CO₂ measurement solution developed by Circulor ("**Circulor's CO₂ Solution**") for its Zero Carbon Lithium™ Project across the European lithium-ion battery and BEV supply chain. Circulor's CO₂ Solution offers a solution that enables customers to track raw materials throughout supply chains to demonstrate responsible sourcing and sustainability. The system implementation enables

reputational protection, proof of compliance with regulations and dynamic carbon tracking. Circulor's CO₂ Solution provides a month-to-month visibility of CO₂ intensity across the supply chain and its participants (see section "9.13 Information Technology"). Vulcan Group intends to implement Circulor's CO₂ Solution to its future lithium supply contracts with European OEMs to help them meet their sustainability objectives for material traceability and CO₂ transparency. Circulor and Vulcan Group intend to collaborate for preparing Vulcan Group and its supply chain for further traceability of Vulcan Group's Zero Carbon Lithium™ product for its targeted production start.

Vulcan Group has been certified as a carbon neutral organisation for 2021 by Climate Active and South Pole. The Climate Active certification covers Vulcan Group's Australian business (i.e. the Company) and has been in place since 2020. This is a partnership between the Australian Government and Australian businesses to encourage voluntary climate action. The South Pole certification covers Vulcan Group's European operations and covers the Company's subsidiaries Vulcan Energie, VEE and VESS (the South Pole certification does not cover Natürlich Insheim, as it was acquired on 31 December 2021 (outside of the scope of the certification boundary) nor does it cover VERCANA or GGH (which has meanwhile been merged with and into Vulcan Energie) as these entities did not have employees or operations). These entities are intended to be included in the next assessment round currently being undertaken.

In connection with the certifications by Climate Active and South Pole, Vulcan Group's emissions footprint has been calculated in accordance with the GHG Protocol, and covers scope 1 emissions (mobile combustion), scope 2 emissions (market-based electricity and heating), and scope 3 emissions (category 1 (purchased goods and services), category 2 (capital goods), category 3 (fuel and energy related activities), category 5 (waste generated in operations), category 6 (business travel), and Category c (employee commuting). As part of Vulcan Group's carbon neutral certifications, Vulcan Group acquired offsets that supported two projects registered under the Verified Carbon Standard (VERRA) including the Rimba Raya Biodiversity Reserve and Sipansihaporas Hydro project in Indonesia.

Moreover, Vulcan Group obtained its first publicly available ESG risk report from Sustainalytics, an independent ESG and corporate governance research, ratings and analytics firm, in January 2023 with an overall ESG risk score of 16.8, which puts Vulcan Group in the top 2nd percentile of all chemicals companies assessed, and 1st among peers of equal market capital size, surveyed by Sustainalytics.

9.8.4 ESG Disclosure

Vulcan Group is a member of the TNFD Forum, a global multi-disciplinary consultative group of institutions with over 800 forum members, helping to contribute to the work and mission of the Taskforce on Nature-Related Financial Disclosures ("**TNFD**"). The TNFD is a global, market-led initiative with the mission to develop and deliver a risk management and disclosure framework for organisations to report and act, with the aim of supporting a shift in global financial flows away from nature-negative outcomes towards nature-positive outcomes.

Vulcan Group's reports on sustainability with reference to the Global Reporting Initiative (GRI) standards, the index of which is accessible in the appendix of the FY22 Sustainability Report. Following from the Annual Report for the financial year ended 30 June 2021 where Vulcan voluntarily disclosed climate-related risks and opportunities utilising the Taskforce on Climate-Related Financial Disclosures ("**TCFD**") framework, the FY22 Sustainability Report expanded TCFD framework reporting to include the Corporate Governance Framework, risk management and identified the magnitude of financial impact of climate-related risks and opportunities for Vulcan Group. Further scenario modelling as part of the TCFD framework is included in Vulcan Group's 2022 TCFD Report.

9.8.5 Further ESG Alliances and Initiatives

Vulcan Group is a member of the Global Battery Alliance ("**GBA**"), an umbrella partnership consisting of 70 members working towards a sustainable battery value chain globally. The GBA follows ten guiding principles covering issues from the circular recovery of battery materials, ensuring transparency of greenhouse gas emissions and their progressive reduction, to eliminating child and forced labour. The GBA is also developing the battery passport, a global solution for securely sharing information and data to prove responsibility and sustainability to consumers with a "quality seal", while enabling resource efficiency across the battery life cycle.

Vulcan Group's lithium team has joined the German National Committee of ISO/TC333 that coordinates the standardisation process in the field of lithium chemicals at national level and is

responsible for organising German participation in standards work at European and international level. Together with experts from the other 15 countries that currently embody the global ISO/TC 333 Committee, the team seeks to improve the quality and value proposition of sustainable lithium products made in Europe.

Since February 2022, Vulcan Group has been a participant on the United Nations Global Compact ("**UNGC**"). The UNGC is based on ten principles around four key themes of Human Rights, Labour, Environment and Anti-Corruption. By becoming a participant, Vulcan Group committed to annually report based on these ten principles.

In addition, Vulcan Group aligned its approach to sustainability with the sustainable development goals adopted by the United Nations in 2015 ("**SDGs**"), with a particular focus on the following ten SDGs: Gender equality, affordable and clean energy, decent work and economic growth, industry, innovation and infrastructure, sustainable cities and communities, responsible consumption and production, life on land, good health and well-being, clean water and sanitation, and climate action.

9.9 Research, Development and Innovation

As of 31 December 2022, Vulcan Group had a team of approximately 20 full-time equivalent employees driving research, development and innovation to advance project development and technology readiness. Vulcan Group has developed and is testing and optimising extraction techniques of lithium from geothermal brine. Vulcan Group's core team comprises a select and well-balanced group of experts with advanced degrees and extensive experience in geo-/chemistry and chemical engineering and other relevant scientific fields for the research and development of lithium products on the one hand, and optimizing the operational effectivity of geothermal plants on the other hand. Vulcan Group is working to adapt the technologies to the ambient parameters such as solubility of minerals and gases in the brine of the Upper Rhine Valley. The goal is to reduce the impact on the brine by the extraction technologies as well as the protection of the subsurface reservoir upon reinjection of the brine. Vulcan Group's research development, and innovation efforts have generated intellectual property and industry know-how (see section "9.12 *Intellectual Property*").

Vulcan Group is committed to building and fostering research development and innovation collaborations with universities and research institutions. Vulcan Group intends on initiating joint research efforts with the KIT. Intensive cooperation with international researchers and experts from the areas of hydro- and petrogeology, reservoir geology, geochemists, geophysicists, geothermics as well as process technology and industrial chemistry is being forged with the aim to contribute with technological and process solutions along the whole value chain and potentially new geographic locations. In addition, Vulcan is currently conducting a research project aiming to explore and provide information on lithium and other element contents in the geothermal brines and mine waters of Eastern Europe. For this, Vulcan Group has partnered with universities and research centres throughout Europe. Also, each of VESS, VEE, Vercana and Natürlich Insheim are involved in numerous research projects across the entire Vulcan Group value chain with further research applications in planning stages.

Selected key research and development projects of Vulcan Group include the following:

VULSORB™	Development of proprietary sorption material
GeoSmart	Enhancing Insheim Plant to dual operation: electricity and heat production. Developing a control system to optimally operate power plant according to weather conditions.
Effeo	Increasing efficiency of geothermal power plants.
GreGeo	Development of a new well completion strategy that aims to establish a corrosion-resistant alternative to steel
CROWDTHERMAL	Empowering the European public to directly participate in the development of geothermal projects with the help of alternative financing schemes (crowdfunding) and social engagement tools.
MEET	Multidisciplinary and multi-context demonstration of EGS exploration and exploitation techniques and potentials
DGE-Rollout	Roll-out of Deep Geothermal Energy in Northwest Europe.

EIKE	Optimisation of Inhibitor dosage to minimize scaling and corrosion within the plant system, as well as environmental impact upon reinjection of Lithium-depleted brine.
GeoThermScaling	Development and evaluation of advanced iron boride-based anti-corrosion coating with high resistance to corrosion and scaling for deep geothermal applications.
GEORISK	Aims to develop financial schemes and mitigate the impact of the resource risk

9.10 Marketing

In order to accomplish its mission to become the world's first lithium chemicals and renewable energy producer with net zero carbon footprint, Vulcan Group has, since 2021, engaged with local stakeholders to ensure public acceptance and backing for Vulcan Group's planned LHM and renewable energy projects, as well as timely grant of requisite permits. Vulcan Group has engaged the services of German renewables-focused public relations company DWR eco GmbH to assist with this. Vulcan Group has built a team of local communication experts to tailor messaging to best inform local stakeholders about planned activities and attract interest in its Zero Carbon Lithium™ Project at a federal and international level.

In addition, Vulcan Group has set up local project websites for each area within the Upper Rhine Valley and initiated editorial contributions. Vulcan Group has also cooperated with the State Ministry of Baden-Württemberg and the University of Stuttgart to implement a participation concept, following the guidelines of the State of Baden-Württemberg, to involve stakeholders.

9.11 Employees

As of the date of this Prospectus, Vulcan Group employed 290 employees (full-time equivalent) of which 9 were employed in Australia, 1 in France and 280 were employed in Germany. Of these employees, 121 were employed as engineers, 18 in research & development, 56 in production and 95 were employed as administration employees and managers.

The following table provides an overview of the number of Vulcan Group's employees (headcount) by Vulcan Group company as of 31 December 2022 and as of 30 June 2022, 2021 and 2020, respectively.

Vulcan Group company	As of 31 December 2022	2022	As of 30 June 2021	2020
Vulcan Energy Resources Limited (the Company)	8	6	4	2
Vulcan Energy Resources Europe Pty Ltd	0	0	0	0
Vulcan Energy Italy Pty Ltd (founded in July 2021)	0	0	n/a	n/a
Vulcan Energie Ressourcen GmbH	85	51	8	1
Global Geothermal Holding UG (acquired in July 2021 and merged with and into Vulcan Energie in January 2022)	0	0	n/a	n/a
Vulcan Energy Subsurface Solutions GmbH (formerly GeoThermal Engineering GmbH, acquired in July 2021)	22	18	n/a	n/a
Vulcan Energy Engineering GmbH (formerly Gec-co Global Engineering & Consulting-Company GmbH, acquired in July 2021)	39	42	n/a	n/a
VER GEO LIO GmbH (founded in July 2021)	0	0	n/a	n/a
Vulcan Geothermal GmbH (founded in July 2021)	0	0	n/a	n/a
VERCANA GmbH (founded in December 2021)	25	8	n/a	n/a
Natürlich Inheim GmbH (acquired in December 2021)	12	13	n/a	n/a
Natürlich Südpfalz Geschäftsführungs GmbH	0	n/a	n/a	n/a
Natürlich Südpfalz GmbH & Co. KG	n/a	n/a	n/a	n/a
Vulcan Energie France SAS (founded in September 2022)	0	n/a	n/a	n/a
Comeback Personaldienstleistungen GmbH (acquired in January 2023)	n/a	n/a	n/a	n/a
Vulcan Projektgesellschaft 1 GmbH (founded in December 2022)	0	n/a	n/a	n/a
Landau-Süd Joint Venture Verwaltungs GmbH	n/a	n/a	n/a	n/a

Landau-Süd Joint Venture GmbH & Co. KG	n/a	n/a	n/a	n/a
Total	191	138	12	3

9.12 Intellectual Property

As of the date of this Prospectus, Vulcan Group has obtained a German utility model registration and has filed a European patent and a Patent Cooperation Treaty (PCT) (international) patent application as well as applied for related national/regional patents, all of which are material to its business.

The registered German utility model has a priority date of 8 April 2020 and is for "a system for direct lithium extraction and production of low carbon intensity lithium chemicals from geothermal brines". The European application was filed on 27 May 2022 for a "system, method and compositions for extracting lithium from low-energy brines" and is currently awaiting examination. The international PCT application, which also has a priority date of 8 April 2020, is titled "system and process for direct lithium extraction and production of low carbon intensity lithium chemicals from geothermal brines" and received a positive outcome at the international preliminary examination. Vulcan Group has recently entered the national/regional phases for this application in Europe, Australia, Canada, Chile, China, Japan, Korea and the US.

The Company currently owns registered figurative trademarks in Europe, United Kingdom, New Zealand, Australia, the US, Canada and Japan. These trademarks relate, in particular, to the Company's logo and Vulcan Group's Zero Carbon Lithium™ Project logo. Vulcan Group has also filed various additional trademark applications, including word marks, for its brands in Europe, Australia, the US and Canada.

9.13 Information Technology

Vulcan Group uses a number of standard software for its business operations, in particular monitoring and accounting software provided by DATEV and ODOO (Enterprise Resource Planning) and data management system ALFRESCO. In addition, Vulcan Group uses seismic, geographic and geochemical interpretation and simulation software such as OpendTect, QGIS and PHREEQC. Vulcan Group announced in March 2021 that it intends to use Circulor's CO₂ Solution for its Zero Carbon Lithium™ Project across the European lithium-ion battery and BEV supply chain. Circulor offers a software solution that enables customers to track raw materials throughout supply chains to demonstrate responsible sourcing and sustainability.

9.14 Insurance

The Company has taken out insurance policies that are customary in its industry, such as fire, natural disasters, operational interruptions, enterprise accident and third-party liability insurance. The Company believes that its insurance policies contain market-standard exclusions and deductibles. The Company regularly reviews the adequacy of its insurance coverage and considers the scope of its insurance coverage to be customary in its industry. The Company has also taken out a directors and officers insurance policy that covers members of the Company's management.

9.15 Litigation

Vulcan Group may be party to legal proceedings from time to time which may arise in the ordinary course of business. During the twelve months prior to the date of this Prospectus, there were no governmental, legal or arbitration proceedings (including any such proceedings which are pending or threatened of which the Company is aware) which may have, or which have in the recent past had, a significant effect on the Company's or Vulcan Group's financial position or profitability.

The Company was in the past the target of a negative report by a short seller, which led to a substantial decrease in the market price of the Company's Shares and caused the Company to institute legal proceedings which were ultimately settled. The settlement includes, among other things, permanent restraints preventing the short seller from publishing any matter of and concerning the Company and an apology to the Company.

9.16 Material Agreements

9.16.1 Share Purchase Agreements

9.16.1.1 Natürlich Insheim Purchase Agreement

In December 2021, the Company's wholly owned indirect subsidiary, VER GEO, acquired Pfalzwerke geofuture GmbH for a purchase price of EUR 31.3 million (following certain price adjustments). The share purchase agreement contains customary seller and buyer representations and warranties. Prior to completion of the Insheim Acquisition, the company name was changed from Pfalzwerke geofuture GmbH to Natürlich Insheim GmbH. Natürlich Insheim owns and operates a deep geothermal power plant in Insheim, Germany, which operates with a thermal water temperature of 165°C, with the technical ability to produce a maximum of 4.8MW power or 28.5MW thermal energy (currently producing approximately 2.9MW of electricity on average). The Insheim Plant has the capacity to supply approximately 8,000 households with electricity and approximately 600-800 households with heat. Vulcan Group intends to operate the Insheim Plant with the existing employees. In addition, Natürlich Insheim holds the Insheim Licence. The Insheim Licence grants Natürlich Insheim the exclusive right to geothermal energy from brine extracted from the site of the Insheim Plant. Following a memorandum of understanding signed in November 2019, Vulcan Group completed lithium-brine mineral resource estimation at the Insheim Licence area in January 2020.

9.16.1.2 GGH Purchase Agreement

In July 2021, the Company's wholly owned subsidiary Vulcan Energie entered into a share purchase agreement with Dr Horst Kreuter and Thorsten Weimann to acquire GGH from Dr Horst Kreuter and Thorsten Weimann, with the consideration for the purchase comprising shares in the Company (see section "12.2 Development of the share capital over the past three years"). GGH holds the Taro Licence. GGH has meanwhile been merged with and into Vulcan Energie.

9.16.1.3 GeoT (now: VESS) Purchase Agreement

In July 2021, the Company's wholly owned subsidiary Vulcan Energie entered into a share purchase agreement with Dr Horst Kreuter to acquire all the shares in a geothermal engineering company, GeoThermal Engineering GmbH (renamed Vulcan Energy Subsurface Solutions GmbH). VESS is an engineering company focused on the sub-surface development of deep geothermal renewable energy projects, such as geothermal power plants, heat stations and drill pads, as well as geothermal projects in high- and low-enthalpy brines around the world. This acquisition enabled the Company to bring in an experienced geothermal development team and to double the size of its technical team for the execution of its Zero Carbon Lithium™ Project.

9.16.1.4 Gec-co (now: VEE) Purchase Agreement

In July 2021, the Company's wholly owned subsidiary Vulcan Energie entered into a share purchase agreement with Thorsten Weimann to acquire all of the shares in a geothermal engineering company, gec-co Global Engineering & Consulting-Company GmbH (renamed Vulcan Energy Engineering GmbH) with the consideration for the purchase comprising shares in the Company (see section "12.2 Development of the share capital over the past three years"). VEE is an engineering company focused on the above-surface development of geothermal power and heating plants, in Europe and worldwide. This acquisition enabled the Company to bring in an experienced surface geothermal development team to execute on its Zero Carbon Lithium™ Project.

9.16.1.5 Comeback Purchase Agreement

In January 2023, the Company's wholly owned subsidiary Vulcan Energie entered into a share purchase agreement with an individual seller to acquire all the shares in personnel service company Comeback against an upfront cash consideration of EUR 150 thousand. Additionally, the Company agreed to issue Performance Rights via a capital increase to the previous sole shareholder of Comeback, subject to the satisfaction of certain milestones. The issue of Performance Rights is based on two milestone achievements with a fixed value of EUR 100,000 each. Comeback serves the German and European drilling industry, offering tailored personnel services including, in particular, in the specialist area of drilling. Pursuant to the share purchase agreement, Vulcan Energie acquired the shares from sellers subject to a trust arrangement with an employee of Vulcan Group company, VERCANA. The share purchase agreement contains customary seller and buyer representations and warranties.

9.16.2 Lithium Offtake Agreements

9.16.2.1 Lithium Offtake Agreement with Umicore

In October 2021, the Company entered into a lithium offtake agreement with Umicore to sell to Umicore between 28,000 metric tonnes and 42,000 metric tonnes of battery-grade LHM over an

initial five-year term with commercial delivery initially scheduled to commence in 2025 (but postponed to 2026). Pricing will be based on market prices for LHM on a take-or-pay basis. Conditions precedent to the start of commercial delivery include successful start of commercial operation and full production.

9.16.2.2 Lithium Offtake Agreement with Renault

In November 2021, the Company entered into a lithium offtake agreement with Renault to sell to Renault between 29,000 metric tonnes and 49,000 metric tonnes of battery-grade LHM over an initial six-year term, representing approximately 12% of Vulcan Group's current planned output over the period with commercial delivery scheduled to commence at the end of 2026 (but postponed to 2027). Pursuant to an amendment to the agreement, the lithium will be delivered at a fixed pricing of 16,000 USD/tonnes. Conditions precedent to the start of commercial delivery include commencement of commercial production and the lithium product being qualified for use in accordance with customary industry standards.

9.16.2.3 Lithium Offtake Agreement with Stellantis

In November 2021, the Company entered into a lithium offtake agreement with Stellantis to sell to Stellantis between 81,000 metric tonnes and 99,000 metric tonnes of battery-grade LHM over an initial five-year term with commercial delivery scheduled to commence in 2026 (but postponed to 2027). In June 2022, the agreement was amended to cover deliveries of 222,000 to 272,000 over a ten-year period, extending the initial term to 2035 (2036 following postponement). The battery grade LHM will be used by the three Stellantis battery production facilities in Europe – in Termoli, Italy, and the Automotive Cells Company (ACC) joint-venture plants in Kaiserslautern, Germany, and Douvrin, France. Pricing will be based on market prices for LHM on a take-or-pay basis. In June 2022, the agreement was amended as follows: lithium delivered between 2026 and 2030 (2027 and 2031 following postponement) is to be priced 50% based on a Price Reporting Agency (PRA) spot index and 50% based on a fixed pricing of 21,000 USD/tonne. Product delivered from 2031 to 2035 (2032 to 2036 following postponement) is to be based 100% on a Price Reporting Agency (PRA) spot index. Conditions precedent to the start of commercial delivery include commencement of commercial operation and the lithium product achieving full product qualification.

9.16.2.4 Lithium Offtake Agreement with Volkswagen

In December 2021, the Company entered into a lithium offtake agreement with Volkswagen, to sell to Volkswagen between 34,000 to 42,000 metric tonnes of battery-grade LHM over an initial five-year term, with commercial delivery scheduled to commence in 2026 (but postponed to 2027). Pricing will be based on market prices for LHM on a take-or-pay basis. Volkswagen announced that it intends on establishing six battery gigafactories with a total production capacity of 240 GWh in Europe by the end of the decade. Volkswagen and the Company have also agreed to a first right of refusal to invest in additional capacity in the Zero Carbon Lithium™ Project. Conditions precedent to the start of commercial delivery include commencement of commercial operation and the lithium product achieving full product qualification.

9.16.2.5 Lithium Offtake Agreement with LG Energy

In January 2022, the Company entered into a lithium offtake agreement with LG Energy to sell to LG Energy between 41,000 metric tonnes and 50,000 metric tonnes of battery-grade lithium with commercial delivery initially scheduled to commence in 2025 (but postponed to 2026) with an initial term of five years, which can be extended by five years. Pricing will be based on the final realised price paid by LG Energy. In addition, the agreement includes price floors and ceilings in relation to the secured volume of lithium with LG Energy, with the aim of bringing more stability to revenues. Conditions precedent to start of commercial delivery include securing of project finance, construction and commissioning of the plants, and the lithium product meeting agreed specifications by the agreed timeline.

9.16.3 Energy Offtake Agreement with Pfalzwerke AG

In December 2021, the Company's wholly owned subsidiary, VER GEO, acquired Pfalzwerke geofuture GmbH (see "9.16.1.1 *Natürlich Insheim Purchase Agreement*"). Since 2013, Pfalzwerke geofuture GmbH (now: Natürlich Insheim GmbH) has been a party, together with other customers, to a framework agreement with Pfalzwerke AG. Based on the framework agreement as well as related individual agreements, Pfalzwerke AG markets and distributes electricity supplied by the Insheim Plant (and plants operated by the other customers) against payment of a fee.

The term of the framework agreement is indefinite. The framework agreement can be terminated at the end of a calendar quarter with three months' notice or for cause.

The framework agreement has been amended by means of an amendment to the framework agreement dated January 2020 to adjust the fee payable by Pfalzwerke AG to Pfalzwerke geofuture GmbH (now: Natürlich Insheim GmbH) and the other customers.

9.16.4 Heat Offtake Agreement with MVV Energie

In April 2022, the Company entered into a binding heat offtake agreement with MVV Energie to sell to MVV Energie between 240,000 MWh and 350,000 MWh of renewable heat per year to supply households in Mannheim, Germany. Delivery is targeted to commence in 2025 with an initial term of 20 years. MMV is the largest municipal energy supplier in Germany with 50.10% of the company belonging to the City of Mannheim. The heat is planned to be supplied from Vulcan Group's planned geothermal wells in the area surrounding the City of Mannheim via heating grids and a series of underground pipes which are to be operated by MVV that deliver hot water or steam to buildings in the local community. With this heat offtake agreement the Company further develops its Mannheim Licence as part of a planned larger Phase Two of the Zero Carbon Lithium™ Project.

9.16.5 Brine Offtake Agreement with geox

In November 2021, Vulcan Group entered into a binding brine offtake agreement with geox, the operator of the Landau Plant, regarding the provision to Vulcan Group of brine from the Landau Plant for the purpose of extracting the lithium contained in the brine. Under the terms of the geox Agreement, Vulcan Group has the right to purchase and extract the lithium from the brine produced from the Landau Plant, and return it to the plant for re-injection, with expected brine volume from the production well of at least 100 litres per second, subject to the financing and drilling of a reinjection well which can accommodate the current production well flow, and with an earliest offtake start date of 30 December 2024. Vulcan Group intends to incorporate the geox Agreement into its Phase One development plans. In addition, subject to obtaining the relevant permissions from the authorities, the Landau Plant will provide access to accommodate Vulcan Group's LEOP, with a target start-up date for mid-2023.

9.16.6 Joint-venture Agreement with Geysir Europe

In December 2022, Vulcan Group entered into a joint-venture agreement with Geysir. Pursuant to the joint-venture agreement, Vulcan Energie and Geysir intend to construct and operate a geothermal energy plant in an isolated area of Geysir's Landau-Süd licence area located in Rheinland-Pfalz. Vulcan Energie and Geysir intend to build, to develop, construct and operate a geothermal power plant through the joint-venture entity, Landau-Süd Joint-venture GmbH & Co. KG to be formed by Vulcan Energie and Geysir. The joint-venture agreement between Vulcan Energie and Geysir governs, inter alia, the marketing of the electricity and heating energy generated from the operation of the geothermal power plant and the provision of thermal water to Vulcan Energie or another subsidiary of the Vulcan Group in return for payment for the purpose of lithium extraction. The brine coming from such geothermal power plant (together with further geothermal water supplies) will be provided to Vulcan Group for the purpose of lithium extraction in a separate lithium extraction plant.

9.16.7 Rift Agreement with GET

In December 2022, Vulcan Group entered into an agreement with GET. GET is the holder of an exploration licence for the mineral resources geothermal energy and lithium in the so-called "Rift" licence area, granted by the German State of Rheinland-Pfalz. The purpose of the agreement and the accompanying project is to facilitate the extraction of lithium and geothermal energy from the Rift area, foresee project planning aimed at permanent borehole production of lithium-containing thermal brines. Pursuant to the agreement the rights from the licence held by GET pertaining to an isolated area in the Rift licence area are extended to Vulcan Group subsidiary Vulcan Energie. In the northern part of the licence area, GET relinquishes its rights and obligations and the licence exclusively to Vulcan Energie and receives a permanent regular compensation for each area in the field. In the southern part of the licence area, Vulcan Energie has no rights or obligations and receives a permanent regular compensation for each area in the field, which is placed in the same position as if GET were the sole owner of this part of the field.

9.16.8 Drill Rig Purchase Agreements with Wintershall Dea Deutschland GmbH and Aftermarket Drilling Service IT-AG GmbH

In October 2021, Vulcan Group entered into agreements with Wintershall Dea Deutschland GmbH and Aftermarket Drilling Service IT-AG GmbH, respectively, to acquire two electric drill rigs as part of Vulcan Group's Zero Carbon Lithium™ Project ("**Drill Rig Purchase Agreements**"). The specialised rigs to which the Drill Rig Purchase Agreements relate can drill to the target depth required for deep geothermal energy wells in the Upper Rhine Valley, Germany. The deep geothermal rigs represent a strategic asset for Vulcan Group's implementation of its Zero Carbon Lithium™ Project. The deep geothermal rigs also give Vulcan Group the potential to generate renewable energy for local communities in Germany (heat and/or power, depending on location). Following refurbishment, the rigs are expected to be operation-ready by mid- and late-2023, respectively.

9.16.9 Drilling Equipment Purchase Agreement with Vallourec Deutschland GmbH

In October 2022, VERCANA entered into an agreement with Vallourec Deutschland GmbH to deliver casings for the geothermal wells close to Neustadt as part of Vulcan Group's Zero Carbon Lithium™ Project ("**Casings Purchase Agreement**"). The casings to which the Casings Purchase Agreement relates are essential drilling equipment required to drill to the target depth required for deep geothermal energy wells in the Upper Rhine Valley, Germany.

9.16.10 Site Letter of Intent Agreement with Infraser

In September 2021, the Company signed a letter of intent agreement with chemical park management company Infraser, to secure a site for its planned CLP, at the Höchst Chemical Park (*Industriepark Höchst*), located in Frankfurt am Main. Vulcan Group currently intends to use the CLP to be constructed at the Höchst Chemical Park as a processing hub, processing lithium chloride from multiple combined geothermal and lithium sorption plants into LHM monohydrate. Pursuant to the agreement, and following the exercise by the Company of an extension option, Infraser reserves the site exclusively for the Company through 30 September 2023, whereas the Company is not entitled to use the site during the reservation period. The site in Höchst to which the agreement relates has a close proximity to Vulcan Group's Project Licence areas.

9.16.11 Stellantis Placement Agreement

In June 2022, Vulcan Group entered into a placement agreement with PSA Automobiles S.A. ("**PSA**"), a subsidiary of Stellantis. Pursuant to the placement agreement, PSA subscribed for 11,448,959 fully paid ordinary Shares at a price of EUR 4.34 per Share, resulting in an equity placement to PSA in an amount of EUR 50 million. Completion under the placement agreement occurred on 28 June 2022 (see section "*12.2.2 Selected current issuances of Shares*"). The placement agreement contained standard warranties and confidentiality obligations for both the Company and PSA. The placement agreement also contained provisions on the public announcements to be made by the Company and PSA in relation to the placement.

10. GENERAL INFORMATION ABOUT THE COMPANY

10.1 Company name, incorporation, registered office and financial year

The Company's legal name is Vulcan Energy Resources Limited.

The Company was incorporated on 5 February 2018 under the name Koppar Resources Limited by Pheakes Pty Ltd (a public company limited by shares incorporated in Australia with registered address at 81 Philip Road, Dalkeith WA 6009, Australia) and was admitted to the official list of ASX on 30 May 2018. The Company is incorporated and registered in Western Australia, Australia, under Australian Company Number 624 223 132. The Company's legal entity identifier (LEI) is 8945006OYFHQ9HE4XE54.

The Company's registered office and business address is Level 2, 267 St Georges Terrace, Perth WA 6000, Australia. The Company's telephone number is +61 8 6189 8767, the Company's website is www.v-er.eu. The information on the Company's website is neither part of, nor incorporated by reference into, this Prospectus.

The Company's financial year begins on 1 January and ends on 31 December.

The Company does not have a specified corporate purpose/object (in line with Australian corporate law).

The Company is incorporated for an indefinite period and will remain a company until deregistered or wound up. Subject to the satisfaction of certain requirements, the Company can be deregistered or wound up voluntarily (i.e. following approval at a general meeting of Shareholders) or by court order in case the Company is insolvent.

10.2 History of the Company

The Company was incorporated on 5 February 2018 under the name Koppar Resources Limited by Pheakes Pty Ltd (a public company limited by shares incorporated in Australia with registered address at 81 Philip Road, Dalkeith WA 6009, Australia). The Company was admitted to the official list of ASX on 30 May 2018 as Koppar Resources Limited (ASX Code: KRX) and, since September 2019, as Vulcan Energy Resources Limited (ASX Code: VUL). Still in 2018, the Company completed the acquisition of Koppar Resources Europe Pty Ltd (later renamed Kuniko Limited) and, in 2019, of Vulcan Energy Resources Pty Ltd (later renamed Vulcan Energy Resources Europe Pty Ltd).

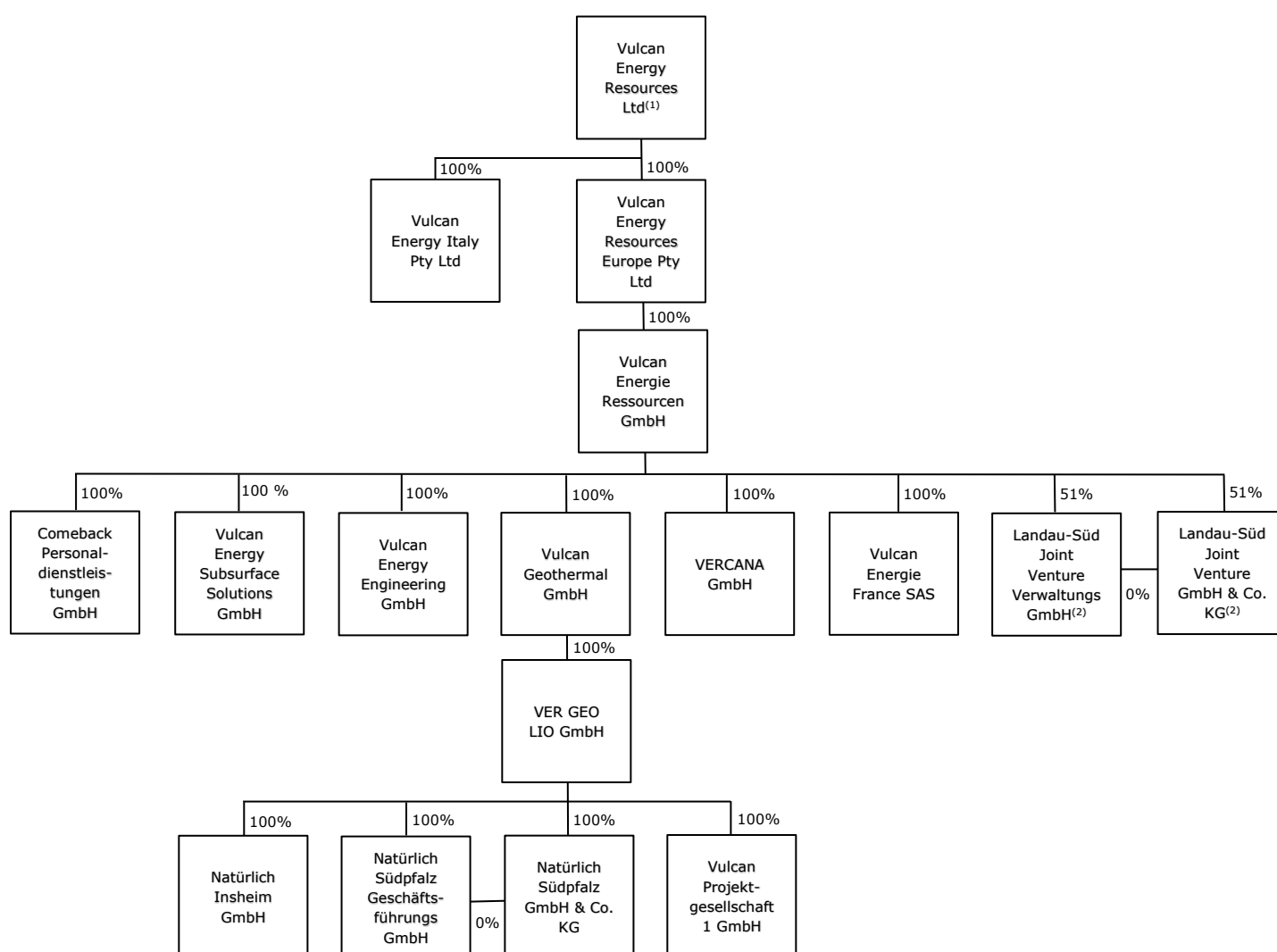
In 2021, the Company's wholly owned subsidiary Vulcan Energie acquired GGH (meanwhile merged with and into Vulcan Energie), Gec-co (now: VEE) and GeoT (now: VESS). In 2021, VER GEO completed the acquisition of Natürlich Insheim (see section "9.1.2 Recent Acquisitions"). In the same year, Kuniko (containing Vulcan Group's non-core Norwegian battery metals assets) was spun off in order for the Company to focus on its Zero Carbon Lithium™ Project.

On 14 February 2022, the Company's Shares were admitted to trading on the regulated market (*Regulierter Markt*) of the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*) with simultaneous admission to the sub-segment of the regulated market with additional post-admission obligations (Prime Standard), making the Company the first Australian company with a listing on the regulated market (*Regulierter Markt*) of the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*).

In 2023, the Company's wholly owned subsidiary Vulcan Energie acquired Comeback.

10.3 Group structure

The Company is the parent company of Vulcan Group. As the parent company of Vulcan Group, the Company performs certain group management functions including strategic planning and public relations. The following chart shows the structure of Vulcan Group as of the date of this Prospectus:



(1) Vulcan Energy Resources Ltd also holds a minority interest in Kuniko Limited.

(2) Commercial register registration outstanding.

10.4 Subsidiaries

The following table provides an overview of the Company's subsidiaries. All of the shares in these subsidiaries are fully paid ordinary shares.

As of the date of this Prospectus			
Name, registered office, country of incorporation	Field of activity	Proportion of share capital held directly or indirectly by the Company	Issued capital
Vulcan Energy Resources Europe Pty Ltd, Perth (Australia)	Holding Company	100% (directly)	100 fully paid ordinary shares
Vulcan Energy Italy Pty Ltd, Perth (Australia)	Holding Company	100% (directly)	10 fully paid ordinary shares
Vulcan Energie Ressourcen GmbH, Karlsruhe (Germany)	Holding Company / Geothermal Energy	100% (indirectly)	EUR 25,000.00

Vulcan Energy Engineering GmbH (formerly Gec-co Global Engineering & Consulting-Company GmbH), Neusäß (Augsburg) (Germany)	Engineering / Consultancy	100% (indirectly)	EUR 25,000.00
Vulcan Energy Subsurface Solutions GmbH (formerly GeoThermal Engineering GmbH), Karlsruhe (Germany)	Engineering / Consultancy	100% (indirectly)	EUR 25,000.00
Vulcan Geothermal GmbH, Karlsruhe (Germany)	Geothermal Energy	100% (indirectly)	EUR 25,000.00
VER GEO LIO GmbH, Karlsruhe (Germany)	Geothermal Energy	100% (indirectly)	EUR 25,000.00
VERCANA GmbH, Karlsruhe (Germany)	Drilling Services	100% (indirectly)	EUR 25,000.00
Natürlich Insheim GmbH, Ludwigshafen (Germany)	Geothermal Energy	100% (indirectly)	EUR 6,920,000.00
Natürlich Südpfalz Geschäftsführungs GmbH, Landau (Germany)	Geothermal Energy	100% (indirectly)	EUR 25,000.00
Natürlich Südpfalz GmbH & Co. KG	Geothermal Energy	100% (indirectly)	EUR 25,000.00
Vulcan Energie France SAS, Haguenau (France)	Geothermal Energy	100% (indirectly)	EUR 100,000.00
Comeback Personaldienstleistungen GmbH, Lingen (Germany)	Personnel services	100% (indirectly)	EUR 25,000.00
Vulcan Projektgesellschaft 1 GmbH, Karlsruhe (Germany)	Geothermal Energy	100% (indirectly)	EUR 25,000.00
Landau-Süd Joint Venture Verwaltungs GmbH ⁽¹⁾	Geothermal Energy	51% (indirectly)	EUR 25,000.00
Landau-Süd Joint Venture GmbH & Co. KG ⁽¹⁾	Geothermal Energy	51% (indirectly)	EUR 100,000.00

⁽¹⁾ Commercial register registration outstanding.

10.5 Statutory auditors

The Company's statutory auditor is RSM Australia Partners, Level 32, 2 The Esplanade, Perth WA 6000, Australia ("**RSM**"). RSM is a practice entity member of Chartered Accountants Australia and New Zealand, 33 Erskine Street, Sydney NSW 2001, Australia. RSM is subject to oversight and review by the Australian Securities and Investments Commission ("**ASIC**"). Under s1280 of the Australian Corporations Act, ASIC has the power to register individuals as Registered Company Auditors. The audit engagement leaders, Tutu Phong and Aik Kong Ting, respectively, are Registered Company Auditors with ASIC (Registration numbers: 322652 and 509265, respectively) and are registered pursuant to section 134 the German Public Accountant Act (*Wirtschaftsprüferordnung – WPO*).

RSM audited the Consolidated Financial Statements in accordance with IASB IFRS and issued unqualified independent auditor's reports which are contained in this Prospectus. The respective auditor's reports of RSM refer to the Consolidated Financial Statements and the respective group management reports of Vulcan Group as a whole. The group management reports of Vulcan Group are neither included nor incorporated by reference in this Prospectus.

The EU Commission established the equivalence of auditing standards for Australia in Decision 2011/30/EU of 19 January 2011.

10.6 Announcements

As the Company is admitted to the Official List of ASX, the Company is considered a "disclosing entity" for the purposes of the Australian Corporations Act. As a disclosing entity, the Company is subject to regular reporting and disclosure requirements. Specifically, like all companies admitted to the official list of ASX, the Company is required to continually disclose to the market any information it has that a reasonable person would expect would have a material effect on the price or value of the Company's securities.

The Company's announcements are published on the website of ASX at www.asx.com.au. The Company may also provide certain information to Shareholders by post or by electronic communication (for example, by email or publication on the Company's website at www.v-er.eu/investor-centre/).

Notices required under applicable laws governing stock exchange transactions will be published in the Federal Gazette (*Bundesanzeiger*) and, if required by mandatory legal provisions, by media distributed across the entire EEA.

Notices relating to the approval of this Prospectus or any supplements thereto will be published in the manner stipulated for the Prospectus in compliance with the provisions of the Prospectus Regulation, i.e. by way of publication on the Company's website: www.v-er.eu/investor-centre/.

11. REGULATORY FRAMEWORK

Vulcan Group's business operations are subject to various laws, rules and regulations. The failure to comply with any of these laws may subject Vulcan Group to civil liability, administrative orders, fines or, potentially, criminal sanctions.

The following provides a brief overview of certain selected regulatory provisions with a focus on the EU and Germany (being the jurisdictions in which Vulcan Group's primary operations are located) applicable to Vulcan Group's business operations. While the relevant laws and regulations are typically of a national scope, within the EU, a considerable degree of regulatory harmonisation exists in a number of areas relevant to Vulcan Group's business. The EU has created a common regulatory framework that applies not only in Vulcan Group's most important market Germany, but in all member states of the EU and comprises directives and regulations. Regulations do not require implementation into national law and apply directly and uniformly in all member states of the European Union. Directives, however, only become effective once they are transposed into national law in the respective member state of the European Union and the implementation of directives may vary between member states. In addition, Vulcan Group has to comply with certain non-EU regulations due to, for example, its incorporation in Australia.

11.1 EU

11.1.1 New Battery Regulation Proposal

Vulcan Group's lithium business involves the production of LHM from lithium chloride to create the performance compound battery-grade LHM. The lithium will be generated from geothermal waters in an existing renewable energy plant. Vulcan Group is therefore part of the battery value chain, but is not itself a battery producer.

Batteries that are more sustainable throughout their life cycle are key for the goals of the European Green Deal and contribute to the zero-pollution ambition set in it. The new so-called Circular Economy Action Plan, which is one of the building blocks of the European Green Deal and Europe's new agenda for sustainable growth, also contains measures strengthening the entire life cycle of products which includes, inter alia, the aim of a new regulatory framework for batteries for enhancing the sustainability and boosting the circular potential of batteries. For that purpose, on 10 December 2020, the EU Commission published a proposal for a new regulation concerning batteries and waste batteries (2020/0353(COD)), repealing Directive 2006/66/EC of the European Parliament and of the Council of 6 September 2006 on batteries and accumulators and waste batteries and accumulators, as amended and amending Regulation (EU) 2019/1020 of the European Parliament and of the Council of 20 June 2019 on market surveillance and compliance of products ("**New Battery Regulation Proposal**").

The New Battery Regulation Proposal contains progressive requirements to minimise the carbon footprint over the life cycle of batteries. In this context, efforts to decrease the carbon footprint in the manufacturing process will indirectly lead to the promotion of renewable energy generation. In the recital 19 of the New Battery Regulation Proposal, the EU Commission states explicitly that certain substances contained in batteries, such as, inter alia, lithium, are acquired from scarce resources that are not easily available in the EU and that this is an area where Europe needs to enhance its strategic autonomy and increase its resilience in preparation for potential disruptions in supply. Vulcan Group's lithium business producing lithium chemical from a renewable energy plant is thus part of the value chain addressed in the New Battery Regulation Proposal.

Based on the New Battery Regulation Proposal, batteries placed on the EU market should be sustainable, high-performing and safe all along their entire life cycle. This means batteries that are produced with the lowest possible environmental impact, using materials obtained in full respect of human rights as well as social and ecological standards. Batteries have to be long-lasting and safe, and at the end of their life, they should be repurposed, remanufactured or recycled, feeding valuable materials back into the economy. Moreover, the EU Commission intends to introduce certain mandatory requirements for placing batteries on the market, such as use of responsibly sourced raw materials with restricted use of hazardous substances, minimum content of recycled materials, carbon footprint, performance and durability and labelling, as well as meeting collection and recycling targets. Vulcan Group intends to use a software solution developed by Circulor that enables customers to track raw materials throughout supply chains to demonstrate responsible sourcing. In addition, the EU Commission proposes to introduce targets for the minimum share of, inter alia, recovered lithium in active materials in batteries.

11.1.2 Carbon Border Adjustment Mechanism

As an essential part of its so-called "Fit for 55 Package", the EU has revised its EU climate goals and intends to reduce net greenhouse gas emissions by at least 55% by 2030. Next to a revision of the existing EU's emissions trading system (EU ETS), which covers the greenhouse gas emissions caused in the EU, the EU also intends to introduce a carbon border adjustment mechanism ("**CBAM**") which shall address the greenhouse gas emissions outside of the EU. The objective of CBAM is to prevent that the emissions reduction efforts of the EU are offset by increasing emissions outside its borders through relocation of production to non-EU countries (where policies applied to fight climate change are less ambitious than those of the EU) or increased imports of carbon-intensive products. CBAM is designed to function in parallel with the EU ETS, to mirror and complement its functioning on imported goods.

The background of the CBAM is that producers in the EU may have higher production costs due to fact that they have to cover greenhouse gas emissions with allowances from the EU ETS. For the producers outside of the EU, the EU ETS does not apply so that the respective costs for allowances does not occur resulting in lower production costs. In order to avoid that carbon-intensive production could move to countries with less strict climate policies and that imported products could have price advantages at the expense of the environment, the CBAM shall require EU companies importing certain goods into the EU to buy CBAM certificates equivalent to the carbon price that would have been paid if the goods had been produced under the EU's carbon pricing rules (i.e. under the EU ETS). Imports covered by the CBAM regime would include power and industrial sector goods such as those involved in the manufacturing of cement, steel, chemicals and fertilisers, as well as electricity and hydrogen, and it is thought that chemicals such as LHM could be covered by the regime.

The CBAM was adopted by the EU legislative bodies in April 2023 and is expected to enter into force within a matter of weeks. The CBAM regime will be introduced through a transitional period commencing in 2023 with full implementation by 2026. By the end of the transition period, the EU Commission will also evaluate how the CBAM is working and whether to extend its scope to more products and services.

The Company believes that the CBAM regime may provide a significant incentive for European companies to source sustainably produced lithium chemicals from within Europe and may have a positive effect on the price Vulcan Group is able to achieve for its lithium product in future sales contracts.

11.1.3 REACH Regulation

The use, manufacture and importing of chemicals is regulated in the European Union through Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals, as amended ("**REACH**"). Its main objectives include improving the protection of human health and the environment from the risks that can be posed by chemicals and ensuring the free circulation of substances in the internal market of the EU. REACH establishes three procedures consisting of the registration, evaluation and authorisation of chemical substances and mixtures. Vulcan Group will use, if and when it commences commercial production, chemical substances and chemical mixtures as part of its production processes. Vulcan Group does not import chemical substances and mixtures into the European Union/European Economic Area but rather uses chemical substances and mixtures sourced within the European Union/European Economic Area in their industrial or professional activities. As a consequence, Vulcan Group is subject to REACH as a downstream user. In addition, also the substance lithium is to be registered under REACH and thus subject to registrations requirements. Thus Vulcan Group is also subject to REACH as a manufacturer to the extent Vulcan Group extracts lithium as a chemical substance within the European Economic Area.

As a rule, REACH applies to all chemical substances. In principle, all manufacturers and importers of chemicals in the EU are responsible for collecting information on the properties and uses of the substances they manufacture or import and must identify and manage risks linked to the substance they manufacture and market. For substances produced or imported in quantities of one ton or more per year per company, manufacturers and importers need to demonstrate that they have appropriately done so by means of a registration dossier, which shall be submitted to ECHA. The registration dossier contains the hazard information and, where relevant, an assessment of the risks that the use of the substance may pose and how these risks should be controlled. The ECHA reviews the dossier for compliance with REACH and evaluates testing proposals to ensure that the

assessment of the chemical substances will not result in unnecessary testing, especially on animals. Where appropriate, authorities may also select substances for a broader substance evaluation to further investigate substances of concern. The registration is based on the "one substance, one registration" principle. This means that manufacturers and importers of the same substance have to submit their registration jointly. The analytical and spectral information provided should be consistent and sufficient to confirm the substance identity.

Manufacturers and importers must provide their downstream users with the risk information they need to be able to use the substances safely. This is done via a classification and labelling system and safety data sheets as needed. Depending on the circumstances (i.e. the individual substances used, inclusion of substance in end product), a downstream user can have the following obligations: make uses known to the registrants (i.e. suppliers); identify and apply the appropriate measures described in the safety data sheets; contact suppliers with new information on the hazard of the substance or mixture or if the risk management measures are not appropriate.

REACH also provides for an authorisation system aiming to ensure that substances of very high concern are adequately controlled and progressively substituted by safer substances or technologies or only used where there is an overall benefit to society from using the substance. These substances are prioritised and gradually included in Annex XIV to REACH. Once they are included, companies have to submit applications to the ECHA on authorisation for continued use of these substances which are otherwise prohibited. In addition, EU authorities can impose restrictions on manufacturing, use or sale of substances which cause an unacceptable risk to human health or the environment. Given that Vulcan Group intends on producing lithium in an ecologically-friendly manner from naturally occurring brines, production will likely not require 'substances of very high concern'.

The REACH Regulation was supplemented by the Regulation (EC) No. 1272/2008 on classification, labeling and packaging of substances and mixtures ("**CLP Regulation**"), as recently amended Delegated Regulation (EU) 2022/692 of 16 February 2022, including comprehensive implementing legislation. The CLP Regulation applies for the substances and mixtures listed in Annex 1 to the CLP Regulation. The CLP Regulation seeks to, inter alia, ensure that EU workers and consumers are clearly in-formed of the hazards associated with chemicals by means of a system of classification, labeling and packaging. The aim is to ensure that the same hazards are described and labeled in the same way in all EU countries. The CLP Regulation provides for manufacturers, importers and downstream users uniform requirements for the classification, labeling and packaging of chemical substances and mixtures according to the United Nations' Globally Harmonized System of classification and labeling of chemicals. It requires companies falling under the scope of the CLP Regulation to classify label and package appropriately their hazardous chemicals before placing them on the market. Downstream users who place substances and mixtures on the market must classify the chemical according to CLP Regulation. They may use the classification provided to them by their supplier or may classify it themselves. If downstream users use a classification that is different to that of all of their suppliers, then they need to report this to ECHA.

On 14 October 2020, the European Commission adopted its Chemicals Strategy for Sustainability which is part of the EU's zero pollution ambition, a key goal of the European Green Deal, and which aims to better protect citizens and the environment from harmful chemicals, and boost innovation by promoting the use of safer and more sustainable chemicals. To achieve these objectives, the strategy includes a revision of REACH and CLP Regulation. The adoption of the REACH revision by the EU Commission is planned for the first quarter of 2023. For the CLP Regulation, the EU Commission has published a proposal for the revision on 19 December 2022 which is subject to public feedback period in the period between 20 December 2022 and 30 March 2023.

11.1.4 Water Framework Directive

Vulcan Group is subject to EU regulations on water use and protection (implemented by the applicable national laws) as during the course of the production processes water is used and disposed of. Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy, as amended ("**Water Framework Directive**") includes a comprehensive approach to water protection. The Water Framework Directive has been implemented in Germany in the German Federal Water Act (cf. for further details below).

Groundwater is protected by both the Water Framework Directive and Directive 2006/118/EC of the European Parliament and of the Council of 12 December 2006 on the protection of groundwater against pollution and deterioration, as amended ("**Groundwater Subsidiary Directive**"),

implemented in Germany in the German Groundwater Ordinance entered into force on 16 November 2010, which lays down detailed quality criteria for the assessment of the groundwater's chemical status, including standards set at the EU level and requirements for threshold values to be set at the member state level. The Groundwater Subsidiary Directive requires member states to establish measures to prevent the input of hazardous substances into the groundwater and limit the introduction of other pollutants.

Discharge of waste water and its treatment is regulated by Council Directive 91/271/EEC of 21 May 1991 concerning urban waste water treatment, as amended. This directive addresses the collection, treatment and discharge of urban waste water and the treatment and the discharge of waste water from certain industrial sectors. Its aim is to protect the environment from any adverse effects caused by the discharge of such waters.

11.1.5 Renewable Energy Directive II

On 11 December 2018, the European Parliament and the Council of the European Union adopted Directive (EU) 2018/2001 on the promotion of the use of energy from renewable sources ("**RED II Directive**"), which was announced in the Official Journal of the European Union on 21 December 2018. The main objective of the Directive is to increase the share of renewable energy in the European electricity mix to at least 32% by 2030. It is intended to contribute to achieving the climate protection goals of the Paris Agreement.

The RED II Directive contains, among others, also new regulations on administrative procedures for the permitting of renewable energy plants. Lengthy administrative procedures are considered as a major administrative barrier and costly. Due to the RED II Directive administrative permit granting processes shall be simplified and clear time-limits for decisions to be taken by the authorities competent for issuing the authorisation for the electricity generation installation on the basis of a completed application shall be introduced. These regulations should stimulate a more efficient handling of procedures, thereby reducing administrative costs. The provisions of the RED II Directive must have been transposed into national law by the member states by 30 June 2021. In relation of permitting procedures in connection with geothermal uses, the requirements of the RED II Directive have been implemented in the German mining law (see below).

On 14 July 2021, the European Commission proposed a revised RED (so-called RED III Directive), which, in particular, provides for a binding EU minimum share of renewable energy sources in final energy consumption of 40 % by 2030.

11.1.6 Corporate Sustainability Reporting Directive

On 5 January 2023, the Directive (EU) 2022/2464 of the European Parliament and the Council of 14 December 2022 amending Regulation (EU) No 537/2014, Directive 2004/109/EC, Directive 2006/43/EC and Directive 2013/34/EU, as regards corporate sustainability reporting ("**CSRD**"), which was adopted by the European Parliament and the Council of the European Union in November 2022 and published in the Official Journal of the European Union on 16 December 2022, entered into force.

Large and listed EU companies, as well as large third country companies which do substantial business in the EU or have securities listed on EU regulated markets will now be required to report on sustainability. The first companies will have to apply the new rules for the first time in financial year 2024, for reports published in 2025.

The CSRD modernises and strengthens the rules about the social and environmental information that companies have to report. Companies subject to the CSRD will have to report on sustainability matters in line with the European Sustainability Reporting Standards (ESRS) developed by the European Financial Reporting Advisory Group. The Commission has to adopt the first set of European Sustainability Reporting Standards by 30 June 2023, based on the draft standards submitted by the European Financial Reporting Advisory Group in November 2022.

The CSRD also makes it mandatory for companies to have an audit of the sustainability information that they report. In addition, it provides for the digitalisation of sustainability information.

11.1.7 Proposed Critical Raw Materials Act

In 2022, the EU Commission has launched a legislative initiative towards a legal act or a set of legal acts referred to as Critical Raw Materials Act ("**Critical Raw Materials Act**") which seeks to

significantly increase and diversify the EU's critical raw materials supply, strengthen circularity and support research and innovation. The initiative towards the Critical Raw Materials Act is intended to (i) identify strategically important raw materials (which are expected to include lithium), (ii) create an EU-wide network of raw materials agencies enabling collective diversification, stockpiling and investment decisions, (iii) support projects and attract more private funding by granting streamlined procedures and better access to finance and thus strengthening the supply chains and (iv) ensure a strong and sustainable playing field by harmonising e.g. certification on environmental and social performance or regulation on waste streams, recycling and strategic storage.

In connection with the Critical Raw Materials Act, the EU Commission published on 16 March 2023 a proposal for a regulation establishing a framework for ensuring a secure and sustainable supply of critical raw materials and a proposal for a regulation on establishing a framework of measures for strengthening Europe's net-zero technology products manufacturing ecosystem. As next steps, the proposed regulations are intended to be discussed and agreed among the relevant EU institutions before its adoption and entry into force.

11.1.8 ECHA Proposals

With its opinion dated 16 September 2021, ECHA's risk assessment committee has proposed to re-classify lithium as a hazardous substance of category 1A. If adopted as proposed, this proposal would result in tighter regulation on processing, packaging and storage of lithium across the EU.

In addition, authorities in Denmark, Germany, the Netherlands, Norway and Sweden ECHA have recently submitted a proposal to ECHA for the restriction of per- and polyfluoroalkyl substances aimed at reducing such substances' emissions into the environment which is subject to public consultation until September 2023. If adopted as proposed, the proposal could result in the phasing out of the use of polytetrafluoroethylene polymer, or PTFE, membranes.

11.2 Germany

11.2.1 Federal Mining Act (*Bundesberggesetz*)

11.2.1.1 Permits under mining law

Vulcan Group is subject to the German mining law as the exploration and exploitation of geothermal and lithium fall within the scope of the German Federal Mining Act (*Bundesberggesetz* – "**BBergG**"). As a result, the exploration and development activities for Vulcan Group's lithium and renewable energy businesses require the necessary permits pursuant to the BBergG. The underground land and mineral resources are subject to a specific system of property and use rights which are further defined under the BBergG. These provisions differentiate between so-called "freely mineable resources" (*bergfreie Bodenschätze*) and "freehold resources" (*grundeigene Bodenschätze*). Whereas freehold resources are part of the property of each landowner, the freely mineable resources are not part of the property of the landowner so that ownership in land shall not extend to these freely mineable resources. The provisions of the BBergG provide an exhaustive list of freely mineable resources which also includes lithium as well as geothermal heat.

In contrast to the use of freehold resources, the use of freely mineable resources requires several mining authorisations. In this regard, the BBergG contains a detailed and stepwise permitting system. Under this system,

- in a first step, so-called mining authorisations have to be obtained which give an exclusive right to explore and exploit the relevant resource;
- in a second step, the specific mining activities to actually exploit the resource (as an exercise of the previously granted mining authorisation), are subject to a specific approval system, in particular the mining operations plan procedure (*Betriebsplanverfahren*).

11.2.1.1.1 Mining authorisations (first step)

Under the BBergG the use of freely mineable resources is only permissible with a mining authorisation. An exploration licence (*Aufsuchungserlaubnis*) is needed for exploring freely mineable resources, and an exploitation licence (*Gewinnungserlaubnis*) gives the right to extract freely mineable resources. The authorisation requirements are aimed at an economic ordering function: through granting new mining authorisations and the administering of existing mining authorisations

the state can regulate and control which entities in which area are allowed to explore and extract freely mineable resources.

In particular, an exploitation licence gives the licence holder the exclusive right to explore the resources specified in the exploitation licence, to extract them and to acquire ownership in the resources. These rights are limited to a specific extraction field (*Bewilligungsfeld*) and exclude third parties from extracting the same resource (for example, geothermal energy) in the same extraction field. Furthermore, an exploitation licence is granted for a limited period of time which is adjusted to the specific mining activity. This period is usually rather long and as a general rule should not exceed a period of 50 years (unless the size of the investment in the mining activity in the single case requires a longer extraction period).

An exploitation licence is granted upon application. Importantly, the decision is a conditional decision (*gebundene Entscheidung*) with no discretion of the authority so that the applicant has a right to receive the licence if all legal conditions are met. The requirements for a mining authorisation vary according to whether an exploration licence or an exploitation licence is requested. The requirements for an exploitation licence include, inter alia, the precise identification of the relevant natural resources, a work program showing that the work is adequate in terms of nature, scope and purpose, that the required reliability of the operator is given and that major public interests do not oppose the project. Furthermore, it must be demonstrated that the natural resources are actually profitable and that economic extraction can be expected in the whole extraction field in the future. Beyond the provisions of the BBergG to the mining authorisation and mining operational plan, an entrepreneur may have to fulfil certain specific additional requirements, for example, those of the Mining Ordinance for Drilling (*Tiefbohrverordnung*) or Ordinance on Hazardous Substances (*Gefahrstoffverordnung*).

11.2.1.1.2 Operational plan procedure (second step)

The granting of a mining authorisation does not yet permit the actual exploitation activity. For this, approval of so-called operational plans (*Betriebspläne*) is required. Whereas the mining authorisation decides who is allowed to explore and exploit minerals, the operational plans permit the actual activities and determine the conditions and requirements for the exploration and exploitation activities in line with environmental and mining law requirements, as well as any other public concerns.

The operational plan procedure is a specific permitting procedure set forth in secs. 51 to 57 BBergG for a comprehensive preventative operational control. Specific features of the mining operational plan procedure are the different levels of the approval system, as well as the recurring character of the approval which distinguishes it from other systems which usually have a one-off approval before commissioning of a specific plant.

With regard to the different operational plans, the main planning instrument is the main operational plan (*Hauptbetriebsplan*) which permits the specific mining activities. The main operational plan describes in a precise way the mining project with its type and extent as well, inter alia, the technology used, the delineation to other facilities and water law permits.

In addition, the mining authority can also approve by way of special operational plans (*Sonderbetriebspläne*) single parts of mining operations or specific projects outside of the contents of the main operational plan. The purpose of this approval instrument is primarily to simplify the procedure. In the context of geothermal facilities, for example, special works such as pipe works or the construction and operation of hot water pipelines may be permitted by way of special operational plans.

In addition to the main operational plan, a mandatory general operational plan (*obligatorischer Rahmenbetriebsplan*) is required and a formal planning approval procedure (*Planfeststellungsverfahren*) must be executed for the approval of such plan if a project requires an environmental impact assessment (*Umweltverträglichkeitsprüfung*, in the following "**EIA**"). In case an EIA obligation does not apply and a mandatory general operational plan is therefore not required, the facultative general operational plan (*fakultativer Rahmenbetriebsplan*) can be applied for.

A terminating operational plan (*Abschlussbetriebsplan*) is required for the termination of the extraction activities and the shut-down of the operations.

With regard to the time period during which a main operational plan is valid, main operational plans must be limited in time and as a general rule shall be limited to a period of two years. The background

of the comparatively short term of the main operational plans is the dynamic operational mode of mining activities, which are often further developed locally due to the location of the mineral resources and are therefore subjected to a corresponding continuous control by the authorities. A time limit of more than two years may be allowed as an exception, especially if the course of the operation (*Betriebsverlauf*) is foreseeable.

11.2.1.2 Further permits

The approval for the mining activities granted under the main operational plan or special operational plans does not automatically include all other permits, so that the mining company regularly needs further administrative approvals and permits such as a building permit (*Baugenehmigung*).

11.2.1.3 Current developments in the legal framework of the German mining law

11.2.1.3.1 Lithium extraction

The German legislator has recently adopted changes of the German mining law which, inter alia, aim at further enabling the extraction of lithium that is dissolved in thermal water (cf. BT Drs. 19/28402). These changes entered into force on 18 June 2021. Accordingly, lithium in all forms (i.e. including in dissolved form in thermal water) has been defined to be a freely mineable resource. The background of these changes is that it was previously slightly unclear under the German mining law whether such lithium is actually to be considered as a "freely mineable resource" or as a "freehold resource" under the BBergG. The federal government considered that in the latter case discussions could potentially arise as to which property owner has the right to extract the lithium, whereas in the case of the lithium being clearly defined as a freely mineable resource the respective company can protect its investments by way of obtaining exclusive mining authorisations. With lithium defined as a freely mineable resource, Vulcan Group is not required to obtain title to the properties for its lithium exploration and extraction activities relating to its lithium business.

11.2.1.3.2 Changes in the permitting procedure

The recent changes of the German mining law contain, in addition to the before mentioned amendment on lithium extraction, further provisions on changes to the permitting procedure, which also affect the permitting procedure for plants for the generation of electricity from geothermal energy. The background to these amendments were European requirements (Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of renewable energy sources – RED II), which provide for certain requirements for the administrative procedure for the permitting of installations for the production of energy from renewable sources. The aim is to avoid long administrative procedures for electricity generation plants using renewable energy and to simplify the procedures for the use of renewable energy overall. For this purpose, the following changes in German mining law were adopted, in particular:

- Duration of main operational plans: Previously, the provisions of the BBergG stipulated as a general rule that main operational plans should basically not exceed a period of 2 years. Under the revised BBergG, it has been expressly clarified that the competent authority may determine that main operating plans may also be established for a longer period than for two years if it is possible to control the operation even if the main operating plan has a longer duration, in particular if the course of operations is already foreseeable.
- Simplification of procedures: As part of the recent amendment of the BBergG, new provisions were introduced with the aim to simplify the permitting procedures under the German mining law, i.e. also for the extraction of geothermal energy. The new regulation is intended to ensure that the approval of main and special operational plans and all other approval procedures required under federal or state law are handled by a "single body", i.e. by one centralised authority. This procedure is carried out "at the request of the developer", i.e. the involvement of the single body is voluntary for the applicant. In addition, a procedure manual is to be created. The procedure manual should serve to make it easier for project developers who want to invest in renewable energy to understand the permitting procedures under German mining law. The procedure manual should essentially describe the necessary permitting procedures, provide assistance to applicants on the necessary documents and on how to conduct the procedure and be a source of information on specific procedural questions.

In addition, following the German federal elections, the coalition parties signed their coalition agreement on 7 December 2021, in which the intention was outlined to significantly expedite the permitting process with the goal of accelerating the expansion of renewables.

11.2.2 Federal Water Act (Wasserhaushaltsgesetz)

Next to mining laws, German water law, in particular the German Federal Water Act – Wasserhaushaltsgesetz – "**WHG**" is applicable for the extraction of geothermal waters. Under the WHG, the use of a water body, including the ground water, requires a permit. The "use" of the ground water in a geothermal project includes the drilling into a ground water body (*wasserrechtliche Erlaubnis*). Vulcan Group's plans for drill pad construction require a water law permit for surface water wells. The extraction of ground water, as well as the re-injection of the ground water into the ground water body does not require a water law permit at Vulcan Group's Project Licence areas in the Upper Rhine Valley.

A water law permit can be withdrawn by the competent authority and is granted based on the discretion of the authority. A withdrawal of the permit is however subject to certain restrictions and cannot be withdrawn arbitrarily. Rather, a withdrawal is only possible for a factual reason (in particular one relating to detrimental impacts on the water body resulting from the respective use) and must in any case be in line with the principle of proportionality (i.e. in particular no less restrictive remedies are available to remediate the factual issue).

Whereas water law permits in general remain separate permits, uses of water bodies which are related to mining activities are permitted by the mining authority, which has to coordinate such permits with the competent water authority. Thus, water law permits are often included in the operational plans issued by the competent mining authorities.

Further requirements for groundwater are laid down in the German Groundwater Ordinance (*Grundwasserverordnung*), which in particular contains provisions on uniform threshold values in relation to the chemical status of groundwater.

11.2.3 Renewable Energies Act (Gesetz für den Ausbau erneuerbarer Energien)

Vulcan Group is also subject to the German Renewable Energies Act ("**EEG**") insofar as the lithium will be generated from geothermal waters in renewable energy plants which also uses geothermal waters for the production of electricity subsidised under the EEG. The EEG applies to all plants for the generation of electricity from renewable energies and therefore also to the geothermal plants which Vulcan Group operates and intends to operate as a part of its renewable energy business. Renewable energies within the meaning of the EEG also include geothermal energy, i.e. also geothermal power plants are subject to regulations under the EEG. Depending on the commissioning date of a geothermal power plant, different versions of the EEG (EEG 2004, EEG 2009, EEG 2012, EEG 2014, EEG 2017, EEG 2021 or EEG 2023) can be applicable.

The EEG provides for, inter alia, provisions for the remuneration of electricity produced in renewable energy plants. Under the previous versions of the EEG (EEG 2004, EEG 2009 and EEG 2012) a remuneration by way of statutory fixed feed-in tariffs was the general rule. The EEG 2012 introduced then a new system of direct marketing in form of the market premium model (*Marktprämienmodell*) in which the electricity is marketed directly by the plant operator (or a direct marketing company) at the EPEX energy exchange and – on top – a market premium is paid by the grid operator. This form of direct marketing was under the EEG 2012 still optional and became mandatory under the EEG 2014 (and all later versions).

As Vulcan Group intends to operate geothermal power plants as a part of its renewable energy business and for the extraction of lithium from the geothermal waters, Vulcan Group receives the statutory tariffs or market premium paid under the EEG for the electricity produced in such geothermal power plants and fed into the public grid. The market premium is calculated based on statutory tariffs, known as "reference price" (*anzulegender Wert*), which depends on the relevant energy source. The current applicable statutory tariff for geothermal power plants amounts to EUR cent 25.20 / kWh. From this reference price, the reference market value is subtracted. This value basically means that the average monthly value or yearly value (since EEG 2023) for the respective energy source is subtracted to take account of the receipts already achieved by the direct marketing. As a general rule, the remuneration mechanism of the market-premium model still applies under the EEG 2017, EEG 2021 and EEG 2023, with the exception that the reference prices for new plant are no longer determined by way of statutory provisions, but by way of the tender procedures. However, geothermal power plants are still exempted from the requirement to participate in tender

procedure, so that the statutory tariff of EUR cent 25.20 / kWh remains applicable. For geothermal plants commissioned after 31 December 2023, a decreased statutory tariff applies. As a rule, the statutory tariff decreases by 0.5% on annual basis compared to the preceding year, noting that the statutory tariff in place at the date of commissioning of an individual plant applies to this plant throughout its remuneration period and does not further decrease.

The remuneration under the EEG is typically paid for a period of 20 years beginning from the commissioning date plus the remaining period of the calendar year in which the respective plant was commissioned.

Electricity generated by Vulcan Group in the geothermal power plant as part of its renewable energy business and fed into the public grid is also subject to legal privileges under the EEG. In addition to the provisions on the remuneration of electricity, the EEG also contains obligations of the grid operators to immediately and as a priority connect plants generating electricity from renewable energy sources to the grid connection point. Grid operators are also obliged to physically take off, transmit and distribute immediately as a priority the electricity from renewable energy sources. The obligation to take off the electricity (*Abnahmeverpflichtung*) comprises the complete amount of electricity produced in the respective renewable energy facility.

12. INFORMATION ON THE COMPANY'S CAPITAL

12.1 Issued capital and Shares

As of the date of this Prospectus, the issued capital of the Company comprises:

- 143,435,301 Shares;
- 8,382,801 unquoted performance rights ("**Performance Rights**") (of various classes);
- 91,174 unquoted performance shares ("**Performance Shares**").

References to 'share capital' in this section 12 and elsewhere in this Prospectus are to the Shares (i.e. the fully paid ordinary shares in the capital of the Company) and do not include the Performance Rights or the Performance Shares, which do not provide any voting rights or dividend rights prior to any conversion into Shares following the satisfaction of applicable performance criteria. For additional detail on the Performance Rights and the Performance Shares, see section "12.3 Details of unquoted securities".

Except for the restrictions described in section "3.5 Transferability of the Shares", there are no restrictions on the transferability of the Shares. Each Share on issue is fully paid. For more information about the rights applying to the Shares, see section "3 INFORMATION ABOUT THE SHARES".

The Shares are not represented by a physical share certificate. For additional information on the legal title to, and transfers of, the Shares, see section "3.2 Form and representation of the Shares".

The Shares have no nominal or par value. The Shares are denominated in Australian dollars (A\$). All of the Shares are fully paid up. The Shares are governed by the Company's Constitution, the Australian Corporations Act, the ASX Listing Rules and Australian general law.

12.2 Development of the share capital over the past three years

As at 1 July 2019, the Company's share capital comprised 31,750,001 Shares. As of the date of this Prospectus, prior to completion of the Private Placement, the Company has a total of 143,435,301 ordinary Shares on issue, all of which are quoted (and tradeable) on the FSE and the ASX.

12.2.1 Overview

Between 30 June 2019 and the date of this Prospectus, the following changes in the Company's share capital occurred:

Date	Details	Number of Shares
30 June 2019	Balance as at 30 June 2019	31,750,001
10 July 2019	Placement to sophisticated investors	+ 2,820,000
19 July 2019	Placement to sophisticated investors	+ 3,513,334
5 August 2019	Shares issued to S3 Consortium Pty Ltd for services rendered	+ 1,000,000
4 September 2019	Shares issued to vendors and introducers of the Zero Carbon Lithium™ Project as part of consideration for the acquisition of 100% of the shares in Vulcan Energy Resources Pty Ltd	+ 7,666,667
4 September 2019	Shares issued to Vivien Enterprises Pte Ltd, a company whose sole shareholder is the spouse of Gavin Rezos, to incentive performance and retain services	+ 750,000

Date	Details	Number of Shares
4 September 2019	Shares issue to Vivien Enterprises Pte Ltd, a company whose sole shareholder is the spouse of Gavin Rezos, for participation in placement	+ 1,000,000
28 February 2020	Conversion of Class A Performance Shares and Class D Performance Rights	+ 5,170,000
30 June 2020	Conversion of Class A Performance Rights	+ 800,000
30 June 2020	Conversion of Class A Performance Shares	+ 480,000
30 June 2020	Conversion of listed options	+ 267,753
30 June 2020	Placement to sophisticated investors	+ 12,000,000
30 June 2020	Balance as at 30 June 2020	67,217,755
6 October 2020	Shares issued to S3 Consortium Pty Ltd in lieu of cash fees for marketing and public relations services rendered	+ 400,000
2 July 2020 – 17 December 2020	Conversion of listed options	+ 8,930,765
15 October 2020 – 26 November 2020	Conversion of unlisted options	+ 1,125,250
16 September 2020	Conversion of Class B Performance Rights	+ 500,000
16 September 2020	Issue of introducer shares	+ 660,000
27 November 2020	Shares issued to Ranya Alkadamani	+ 100,000
15 January 2021	Conversion of Class B Performance Shares	+ 4,400,000
15 January 2021	Conversion of Class E & K Performance Rights	+ 2,250,000
20 December 2020 – 20 January 2021	Conversion of listed options	+ 3,457,409
6 February 2021	Placement to sophisticated investors	+ 18,423,077
11 May 2021	Conversion of Class H Performance Shares	+ 260,000
30 June 2021	Placement to Vivien Enterprises Pte Ltd, a company whose sole shareholder is the spouse of Gavin Rezos	+ 38,461
30 June 2021	Issue to the introducers of the Zero Carbon Lithium™ Project	+ 660,000
30 June 2021	Balance as at 30 June 2021	108,422,717
6 July 2021	Shares issued to vendors as partial consideration for the acquisition of GGH (meanwhile merged with and into Vulcan Energie)	+ 11,396
6 July 2021	Shares issued to vendors as consideration for the acquisition of Gec-co (now: VEE), GeoT (now: VESS) and GGH (meanwhile merged with and into Vulcan Energie)	+ 325,000

Date	Details	Number of Shares
19 August 2021	Shares issued to nominee of Nico Rosberg and RXR pursuant to the Partnership Agreement	+ 32,251
22 September 2021	Placement to sophisticated investors	+ 14,814,815
18 October 2021	Shares issued to existing Shareholders in Australia and New Zealand in connection with share purchase plan	+ 228,434
1 December 2021	Shares issued upon conversion of warrants	+ 521,304
17 December 2021	Placement to (1) Vivien Enterprises Pte Ltd, a company whose sole shareholder is the spouse of Gavin Rezos, (2) Annie Liu, (3) Josephine Bush and (4) Heidi Grön	+ 65,317
17 December 2021	Conversion of Class C Performance Shares and Class F, Class L, Class H, Class N and Class Q Performance Rights	+ 7,186,364
8 February 2022	Shares issued to nominee of Nico Rosberg pursuant to the Partnership Agreement	+ 37,492
28 June 2022	Shares issued to Stellantis N.V.	+ 11,448,959
30 June 2022	Balance as at 30 June 2022	143,094,049
7 July 2022	Shares issued to nominee of Nico Rosberg (20,424 of which are locked up, subject to certain customary exceptions, until 7 April 2023) pursuant to the Partnership Agreement	+58,355
7 July 2022	Conversion of Class H, I and S Performance Rights	+182,897
20 December 2022	Conversion of Class R Performance Rights	+100,000
31 December 2022	Balance as at 31 December 2022	143,435,301
n/a	n/a	n/a
4 May 2023	Balance as at 4 May 2023	143,435,301

12.2.2 Selected current issuances of Shares

In connection with the placement to Stellantis on 28 June 2022 referred to in section "12.2.1 Overview", the Company issued 11,448,959 new Shares to Stellantis at an offer price of EUR 4.34 per new Share, resulting in gross proceeds to the Company in an amount of EUR 50 million. Stellantis became the second largest shareholder in Vulcan. The EUR 50 million equity investment by Stellantis is understood to represent the world's first upstream investment in a listed lithium company by a top tier automaker (see section "9.16.11 Stellantis Placement Agreement").

In connection with and for the purpose of the Private Placement, the Company will issue 21,400,000 New Shares pursuant to the Placement Capital Increase. Upon consummation of the Placement Capital Increase, the Company's outstanding ordinary share capital will increase to 164,835,301 ordinary shares.

12.3 Details of unquoted securities

12.3.1 Performance Rights

Performance Rights are contractual rights granted by the Company to the eligible participants under the terms of the incentive plans. Performance Rights only vest if the applicable performance hurdles determined by the Board of Directors for the Performance Rights are achieved. Each Performance Right entitles its holder to be issued one Share in the Company for nil consideration if the vesting conditions applying to that Performance Right are met before their expiry date. Performance Rights do not confer on the holder of the Performance Right any voting rights, dividend rights or the right to receive notice of general meetings of Shareholders.

As of the date of this Prospectus, the Company has 8,382,801 Performance Rights on issue, as set out in the table below. The Performance Rights were issued under the Company's 2018 Incentive Plan and 2021 Incentive Plan to eligible participants under those plans (being employees and directors of, and contractors to, the Company or associated bodies) as long term incentives. For further details about the incentive plan under which the Performance Rights were granted see section "13.2.5.2.3 Variable Remuneration – Long-Term Incentives (LTI)".

Class	Expiry Date	Vesting criteria	Number of Performance Rights on issue
Class G	1 December 2023	The holder completing six months continuous employment with the Company.	250,000
Class H	1 December 2023	The Company announcing, on or before 18 May 2022, a positive pre-feasibility study in relation to the Company's Zero Carbon Lithium™ Project, confirming it is commercially viable.	472,727
Class I	1 December 2023	The Company announcing, on or before 18 May 2023, that it has secured either an off-take agreement representing a minimum of 30% of production volume over a three-year term, or a downstream lithium chemicals joint-venture partner with a minimum of A\$10,000,000 investment in relation to the Zero Carbon Lithium™ Project.	910,909
Class J	16 September 2023	Both of the following occurring: <ul style="list-style-type: none"> The Company announcing, within 36 months from the date of issue, a positive (JORC-Compliant) definitive feasibility study in relation to the Zero Carbon Lithium™ Project, confirming it is commercially viable. The VWAP for Shares as traded on ASX over 20 consecutive trading days is equal to or greater than 225% of the VWAP for Shares for the last 5 trading days up to but not including the date of the shareholders' meeting ("Reference Price"). 	2,500,000

Class	Expiry Date	Vesting criteria	Number of Performance Rights on issue
Class M	1 December 2023	The Company announcing, on or before 21 May 2021, a positive pre-feasibility study in relation to the Company's Zero Carbon Lithium™ Project, confirming it is commercially viable.	1,500,000
Class N	1 December 2023	The Company announcing, on or before 21 May 2022, that it has secured either an off-take agreement representing a minimum of 30% of production volume over a three-year term, or a downstream lithium chemicals joint-venture partner with a minimum of A\$10,000,000 investment in relation to the Zero Carbon Lithium™ Project.	1,500,000
Class S	30 June 2025	One third vesting 12 months from the date of the 24 June 2021 General Meeting (" EGM "), one third vesting 24 months from EGM, one third vesting 36 months from EGM.	25,791
Class T	1 December 2024	The Company being issued a building permit for the first geothermal power plant or, in the case of a pure heating project with no electricity production, the transfer station, on or before the expiry date of 1 December 2024.	260,000
Class U	1 December 2024	The Company being issued a building permit for the first Direct Lithium Extraction system, on or before the expiry date of 1 December 2024.	250,000
Class V	1 December 2024	The Company being granted a permit according to German Immission Control Act (<i>BImSchG</i>) for the first lithium refinery, on or before the expiry date of 1 December 2024.	110,000
Class W	1 December 2024	The Company announcing commissioning of the first commercial lithium extraction plant, on or before the expiry date of 1 December 2024.	100,000
Class Y	1 December 2024	The Company successfully listing on the regulated market of the Frankfurt Stock Exchange on or before the expiry date of 1 December 2024.	60,000
Class Z	1 December 2024	The Company obtaining project financing for the first commercial plant on or before the expiry date of 1 December 2024.	50,000
Class AA	30 June 2026	The combination of the following three criteria:	90,700

Class	Expiry Date	Vesting criteria	Number of Performance Rights on issue
		<ol style="list-style-type: none"> 1. Various personal milestones as agreed between the Company and the recipient (30%); 2. Obtaining sufficient funding in order to allow for completion of the first plant that will be able to produce lithium on a commercial scale, and/or the first new commercial geothermal heating plant, in accordance with Vulcan Group's business plan (First Plant) by 30 June 2023 (30%); and 3. the following shared objectives (40%): <ul style="list-style-type: none"> <u>People:</u> <ol style="list-style-type: none"> a) >80% retention rate for agreed critical roles at all levels of the organisation for FY 23 onwards; and b) increased employee satisfaction rate based on previous annual internal employee satisfaction survey. <u>Environment:</u> <ol style="list-style-type: none"> c) obtain an ESG rating from a recognised third party ESG provider that is above 50%; d) obtain a carbon neutral emission certification from a recognised third-party issuer where Vulcan Group's carbon emissions footprint is measured and offset by supporting credible carbon offset projects and verified across all business units by 30 June 2023; and e) reporting of climate related impacts, risks and opportunities management by Vulcan Group according to the Taskforce for Climate-Related Financial Disclosures (TCFD) guidelines and/or report according to the Taskforce for Nature-Related Financial Disclosures (TNFD). <u>Social:</u> <ol style="list-style-type: none"> f) all exploration/production licences to be in good standing as at 30 June 2023; and g) release of an announcement on the ASX that the Company has 	

Class	Expiry Date	Vesting criteria	Number of Performance Rights on issue
Class AB	30 June 2027	<p>commenced drilling in the Upper Rhine Valley.</p> <p>The combination of the following two criteria:</p> <ol style="list-style-type: none"> <u>Business returns</u> (55% weighting) <ol style="list-style-type: none"> Successful ramp up to nameplate capacity for Phase 1 energy and lithium chemicals production, and achievement of corresponding revenue (30%); Obtain positive definitive feasibility study for Phase Two energy and lithium chemicals production, and achievement of corresponding revenue (15%); Obtain project financing for completion of Phase Two capital expenditure (10%). <u>Sustainability returns</u> (15% weighting) <ol style="list-style-type: none"> Carbon neutral emission certification across all operations through each year in the four-year period commencing 30 June 2022 (7.5%); and Lowest quartile absolute GHG emissions (Scope 1, 2, 3) (7.5%). <u>Total Shareholder Returns ("TSR")</u> (30% weighting) <p>The TSR calculation is based on a combination of absolute TSR (Vulcan share price only) (10%) and relative (Peer Group) TSR (20%) over the four years from 1 July 2022 to 30 June 2026.</p> 	274,200
Class AC	29 November 2025	<p>One third vesting 12 months from the date of the 29 November 2022 Annual General Meeting ("AGM"), one third vesting 24 months from AGM, one third vesting 36 months from AGM.</p>	28,474
Balance as at 4 May 2023			8,382,801

The vast majority of the Performance Rights on issue have already vested and the Company intends to convert all such vested Performance Rights into Shares of the Company in the second half of

2023. Assuming that all 8,382,801 Performance Rights outstanding had been converted to Shares as of the date of this Prospectus (i.e. prior to the completion of and not considering the Private Placement) and further assuming that none of the existing shareholders would be entitled under any Performance Right, based on 143,435,301 Shares outstanding, each shareholder's percentage ownership in the Company's share capital and voting rights would decrease by 5.52% per existing Share.

The Company agreed to issue Performance Rights via a capital increase to the previous sole shareholder of Comeback, subject to the satisfaction of certain milestones. The issue of Performance Rights is based on two milestone achievements with a fixed value of EUR 100 thousand each (see section "7.1 Introduction"). Also, additional Performance Rights in an amount of A\$ 105 thousand are intended to be issued to non-executive director Ranya Alkadamani, subject to shareholder approval at the annual general meeting of the Company.

12.3.2 Performance Shares

Performance Shares are issued shares in the capital of the Company. Each Performance Share entitles the holder to elect to receive one Share for nil consideration by notifying the Company of that election if the applicable vesting conditions for those Performance Shares are met before their expiry date. Performance Shares do not confer any voting rights or dividend rights, but holders of Performance Shares are entitled to receive notices of general meetings and financial reports and accounts of the Company that are circulated to holders of Shares. Holders of Performance Shares are also entitled to attend general meetings of Shareholders.

As of the date of this Prospectus, the Company has 91,174 Performance Shares on issue. These Performance Shares were issued by the Company to Mr Thorsten Weimann and Dr Horst Kreuter as part of the consideration for the Company's acquisition of GGH (which has meanwhile been merged with and into Vulcan Energie).

Class	Expiry Date	Vesting exercise	Number of Performance Shares on issue
Class D	24 June 2024	<p>The Performance Shares will vest on any one of the following milestones on any of the GGH licence areas within 30 months of completion of the acquisition of GGH (which completed on 2 July 2021):</p> <ul style="list-style-type: none"> the Company (or any of its subsidiaries) obtaining a positive approval for geothermal brine production from the relevant governmental authority following a provisional environmental impact assessment; the Company (or any of its subsidiaries) obtaining approval for the construction and operation of a main operating plant under Germany's Federal Mining Act; the Company (or any of its subsidiaries) obtaining the first approval for a special operating plan in accordance with BBergG; the Company (or any of its subsidiaries) the first approval or preapproval from the 	91,174

Class	Expiry Date	Vesting exercise	Number of Performance Shares on issue
		<p>relevant governmental authority for the construction of a geothermal organic rankine cycle plant; or</p> <ul style="list-style-type: none"> the Company (or any of its subsidiaries) obtaining the first approval or pre-approval from the relevant governmental authority for the construction of a direct lithium extraction (lithium conveying) plant. 	
		Balance as at 4 May 2023	91,174

Assuming that all 91,174 Performance Shares outstanding had been converted to Shares as of the date of this Prospectus (i.e. prior to the completion of and not considering the Private Placement) and further assuming that none of the existing shareholders would be entitled under any Performance Share, based on 143,435,301 Shares outstanding, each shareholder's percentage ownership in the Company's share capital and voting rights would decrease by 0.06% per existing Share.

12.4 General provisions on changes in the share capital

Under the Australian Corporations Act, the Company does not have an authorised share capital and there is generally no limit under the Australian Corporations Act or the Constitution on the power of the Directors to issue Shares or other securities. The Company does not have subscription rights or other rights of pre-emption/anti-dilution attaching to the Shares as a result of which shareholders of the Company would be entitled to participate in future capital issues. Other than in limited circumstances, there is also no Australian legal requirement to issue new shares at a certain minimum offer price. The primary protection for shareholders against dilution is the restrictions in the ASX Listing Rules on additional share issues. Subject to specified exceptions, the ASX Listing Rules restrict a company admitted to the official list of ASX such as the Company from issuing, or agreeing to issue, more than 15% of the company's total number of securities (calculated according to a prescribed equation) in any rolling 12-month period without obtaining shareholder approval. In addition, directors of Australian companies have statutory duties to (among other things) act in the best interests of the company, which the Board of Directors must have regard to when determining to undertake a capital raising and the issue price for such capital raising.

Subject to specified exceptions, the ASX Listing Rules restrict a company admitted to the official list of ASX such as the Company from issuing, or agreeing to issue, more than 15% of the company's total number of securities (calculated according to a prescribed equation) in any rolling 12-month period without obtaining shareholder approval.

Specified exceptions to the requirement to seek shareholder approval under the ASX Listing Rules include (among other things):

- pro rata issues made to existing shareholders;
- issues made to an underwriter of the shortfall under a pro rata issue, subject to certain requirements; and
- issues made under an employee incentive plan approved by shareholders in the preceding three years.

12.5 General provisions on changes in share rights

Under section 246B of the Australian Corporations Act, the Company may vary or cancel the rights attached to shares in a class of shares only if:

- where the Company's Constitution sets out a procedure for varying or cancelling such rights, that procedure is followed; or
- where the Company's Constitution does not set out a procedure for varying or cancelling such rights, the Company follows the procedure prescribed by the Australian Corporations Act.

Under the Company's Constitution, if at any time the share capital of the Company is divided into different classes of shares, the rights attached to any class (unless otherwise provided by the terms of issues of the shares of that class), whether or not the Company is being wound up, may be varied or abrogated with the consent in writing of the holders of three quarters of the issued capital of that class, or if authorised by a special resolution passed at a separate meeting of the holders of the shares of that class.

12.6 General provisions on dividend payments and distributions out of capital

Under the Australian Corporations Act, a company must not pay a dividend unless:

- its assets exceed its liabilities immediately before the dividend is declared and the excess is sufficient for the payment of the dividend;
- the dividend is to be fair and reasonable to the company's shareholders as a whole; and
- the payment of the dividend does not materially prejudice the company's ability to pay its creditors.

Additionally, where a distribution is paid out of capital, the provisions of the Australian Corporations Act relating to reductions of capital must also be complied with.

12.7 General provisions on the liquidation of the Company

If the Company is wound up, the liquidator may, with the authority of a special resolution, divide among the shareholders in kind the whole or any part of the property of the Company, and may for that purpose set such value as the liquidator considers fair upon any property to be so divided, and may determine how the division is to be carried out as between the Shareholders or different classes of Shareholders.

12.8 Regulation of Australian takeovers

Subject to certain exceptions, the Australian Corporations Act prohibits the acquisition of a relevant interest in the voting shares of a company registered under the Australian Corporations Act that either is listed on a prescribed stock exchange (including ASX) or has more than 50 shareholders if, as a result of the acquisition, the voting power of the acquirer (or any other person) in the company would increase:

- from 20% or below to more than 20%; or
- from a starting point that is more than 20% but less than 90%,

(known as the "**20% Rule**").

A person's voting power for these purposes is equal to the aggregate relevant interest of the person and their associates in the voting shares of the company. The Shares are currently the only class of voting shares in the Company on issue.

Broadly, a person has a "relevant interest" in a security if they:

- are the holder of that security;
- have the power to dispose of, or control the exercise of a power to dispose of, that security;
- have the power to exercise, or control the exercise of, the right to vote in respect of that security;

- control or have voting power above 20% of a body corporate or management investment scheme that has a relevant interest in that security;
- grant an option, or have granted an option to, or by, a person with a relevant interest in the security, the exercise of which would give the first person a relevant interest in the security; or
- are given, or have been given, or give, or have given, an enforceable right in relation to the security, the enforcement of which would give the first person a relevant interest in the security (whether the right is enforceable presently or in the future and whether or not on the fulfilment of a condition).

These concepts are broad and, for example, the concepts of "power" and "control" include:

- power or control that is indirect;
- power or control that is, or can be, exercised as a result of, by means of or by the revocation or breach of a trust, agreement, practice or combination (whether or not enforceable); and
- power or control that is, or can be made, subject to restraint or restriction,

regardless of whether the power or control is express or implied, formal or informal, or exercisable alone or jointly with another person.

There are several exceptions which allow acquisitions that would otherwise be prohibited from taking place under the 20% Rule. These exceptions include (among other things):

- (a) takeover bid: an acquisition under a formal takeover bid that complies with the requirements of the Australian Corporations Act;
- (b) scheme of arrangement: an acquisition that results from a compromise or arrangement approved by a court under Part 5.1 of the Australian Corporations Act;
- (c) shareholder approval: an acquisition that has been previously approved by shareholders at a general meeting of Shareholders (provided, among other things, that shareholders are provided with certain information prescribed under the Australian Corporations Act and the potential acquirer and its associates did not vote on the approval);
- (d) 3% creep: an acquisition by a person where the person (or any other person) had voting power in the company of at least 19% throughout the six-months prior to the acquisition, and the acquisition does not result in any of those persons' voting power to increase by more than 3% over the voting power they had six months prior to the acquisition; and
- (e) pro rata offers: an acquisition under a pro rata offer of new securities in which all securityholders in that class are offered the opportunity to participate on the same terms, where the securityholders have been provided with a reasonable opportunity to accept such offers (including an acquisition by an underwriter or sub-underwriter to that offer).

In addition, the Foreign Acquisitions and Takeovers Act 1975 (Cth) of Australia regulates the acquisition directly or indirectly by a "foreign person" of (among other things) securities in Australian companies. The definition of "foreign person", broadly, encapsulates any person or entity that is not an Australian resident, including any Australian company in which a "foreign person" has an interest of at least 20% or in which two or more "foreign persons" have an aggregate interest of at least 40%.

Generally, an acquisition by a foreign person that results in foreign ownership in an Australian company exceeding the applicable threshold will require notification to (and, usually, a confirmation of no objection from) the Australian treasurer.

In most cases, the applicable threshold will be met where a foreign person, together with its associates, directly or indirectly acquires an interest in (or increases its interest above) 20% of more of the voting power in an Australian business valued at more than A\$1,339 million (in the case of investors from certain countries that have an applicable free trade agreement with Australia) or A\$310 million (for investors from other countries). However, lower thresholds (both monetary threshold and interest threshold) may apply depending on the nature of the acquirer (for example,

where the acquirer is a "foreign government investor") and the nature of the target (for example, where the target holds significant land interests or is a "national security business").

12.9 Takeover bids

One of the main methods for acquiring control of an Australian company that is listed on a prescribed stock exchange (including ASX) or has more than 50 shareholders is by way of a takeover bid under Chapter 6 of the Australian Corporations Act. A takeover bid involves a potential acquirer making an offer to all securityholders of a target company (or unitholders of a trust) to acquire their securities (or units) on the same terms.

There are two types of takeover bid:

- an off-market bid (which may offer cash or other consideration, may be subject to conditions, and may be for 100% of the target securities or a specified proportion of each target securityholder's securities); and
- a market bid (which must be an unconditional cash offer).

In an off-market bid, the bidder must make its offers to target securityholders in writing in a document called a bidder's statement, which must be prepared in accordance with the requirements of the Australian Corporations Act. The target company must respond to that bidder's statement by preparing and dispatching to its securityholders (in the class of securities subject to the takeover bid) a document called a target's statement, which contains all the information that holders of bid class securities and their professional advisers would reasonably require to make an informed assessment whether to accept the offer under the bid (subject to limited exceptions), as well as the target directors' recommendation as to whether securityholders should accept or not accept the takeover bid. In contrast, a market bid (often called an on-market bid) involves the bidder appointing a broker to stand in the ASX market and make offers to acquire target securities at the specified bid price, with acceptances being effected by the execution of on-market trades rather than off-market acceptances. Despite the offers being made on-market, a bidder's statement and target's statement still need to be prepared in a market bid.

12.10 Scheme of Arrangement

In addition to takeover bids, the other main method of acquiring control of an Australian company that is listed on a prescribed stock exchange (including ASX) or has more than 50 shareholders is by way of a scheme of arrangement between the company and its members under Part 5.1 of the Australian Corporations Act. A scheme of arrangement is a statutory procedure that allows a company to reorganise its capital structure to give effect to a proposal, such as transferring all of the voting shares in a company to a proposed acquirer, or cancelling all of the voting shares in a company not already held by the proposed acquirer.

Unlike a takeover bid, a scheme of arrangement is a legal process involving the target company and its shareholders consenting to a proposal that will bind all shareholders. For a scheme of arrangement to bind all shareholders, the following majority approvals must be obtained from shareholders:

- (a) headcount test – a simple majority in number (greater than 50%) of the shareholders who vote; and
- (b) voted shares test – at least 75% of the total number of votes cast.

The scheme of arrangement must also be approved by an Australian court. In determining whether to approve a scheme of arrangement, the Australian court will need to be satisfied that:

- (a) the requirements of the Australian Corporations Act have been met (including that the majority approvals for shareholders have been achieved);
- (b) the majority of shareholders voting in favour of the schemes were acting in good faith and not for an illegal or illegitimate purpose; and
- (c) the proposal was sufficiently fair and reasonable such that an intelligent and honest shareholder might approve it.

The advantage of a scheme of arrangement compared to a takeover bid is that a change of control of the target company can be effected by achieving the above shareholder majority approvals, and does not require the unanimous agreement of all shareholders (or approval of such number of shareholders so as to enable the bidder to proceed with follow-on compulsory acquisition – see section "12.11 Squeeze-out of minority shareholders" below).

Compared to a takeover bid, a bidder has a more limited role in a scheme of arrangement, as the process is controlled by the target company whose co-operation is required to put forward the bidder's proposal before a meeting of the target company's shareholders. For these reasons, the bidder's role in a scheme of arrangement is generally confined to:

- (a) making the proposal to acquire all the shares in the target company by scheme of arrangement;
- (b) negotiating and entering into a scheme implementation agreement (being the document that sets out the obligations of the target and bidder to co-operate to give effect to implementation of the scheme of arrangement); and
- (c) providing input into the target company's explanatory statement to shareholders (described below).

Once the terms of the scheme implementation agreement are agreed, the target company will then draft a notice of meeting and explanatory statement to shareholders, commonly referred to as a "**Scheme Booklet**", explaining the effect of the proposed scheme of arrangement and containing all information known to the target company's directors that is material to the making of a decision by a shareholder as to whether or not to agree to the scheme of arrangement. The Scheme Booklet is then lodged with ASIC, being the Australian national regulator of corporations, for review. Where the consideration offered to the target company's shareholders comprises (in whole or in part) securities in the bidder or another entity, the Scheme Booklet must also contain all the information that investors and their professional advisers would reasonably require to make an informed assessment of the rights and liabilities attaching to those securities, and the assets and liabilities, financial position and performance, profits and losses and prospects of the body that is to issue the securities (but only to the extent to which (i) the target company's directors know or ought reasonably know that information, and (ii) it is reasonable for investors and their professional advisers to expect to find the information in the Scheme Booklet).

Following ASIC's review of the scheme booklet, the target company will apply to an Australian court for an order to convene a meeting of its shareholders to consider and vote on the proposed scheme of arrangement. If approval of the relevant Australian court is received, the Scheme Booklet is despatched to the target company's shareholders and a shareholders' meeting is convened to consider the proposed scheme of arrangement.

If the target company's shareholders approve the scheme of arrangement at the meeting of shareholders, the target company will then notify ASIC and apply for orders at a second hearing (again, before an Australian court) seeking approval of the scheme of arrangement. The Australian Court then has the discretion to either approve or decline the scheme of arrangement, but will generally not substitute its assessment of the merits of the scheme of arrangement for that of the majority shareholders who voted in favour of it. Shareholders of the target company may appear at the second hearing and petition the Australian court not to approve the proposed scheme of arrangement if they believe the scheme prejudices their interests or has not met the legal requirements. ASIC may also appear at either the first or second court hearing if it objects to a proposed scheme.

Following approval by the Australian court at the second court hearing, the target company will lodge the Court orders with ASIC, at which time the scheme of arrangement will become legally binding on all shareholders of the target company, including those who voted against the scheme or omitted to vote. The scheme of arrangement will be implemented shortly thereafter.

12.11 Squeeze-out of minority shareholders

The Australian Corporations Act provides that a person who has made a takeover bid which results in, at the end of the offer period, that person (and its associates) having a relevant interest in at least 90% of the issued shares and having acquired 75% (by number) of the shares that the person offered to acquire under the bid, may compulsorily acquire any remaining shares it does not hold at the same price offered under the bid, within one month after the end of the offer period.

The Australian Corporations Act also permits a minority shareholder to require an offeror to acquire the minority shareholders' shares if the offeror has a relevant interest in at least 90% (by number) of the issued shares at the end of the takeover bid.

In addition, whether or not a takeover bid has been made, a person who lawfully acquires a relevant interest in at least 90% of the issued shares of a company is able to acquire the remaining shares in that company for fair value (as determined by an independent expert), provided that the acquirer lodges a compulsory acquisition notice within six months after obtaining a relevant interest in at least 90% of the issue shares.

12.12 Notification and reporting requirements for shareholdings

12.12.1 Australia

As the Company is admitted to the official list of ASX, under the Australian Corporations Act, a shareholder who begins or ceases to have a substantial holding in the Company, or who has a substantial holding in the Company and there is a movement by at least 1% in their holding, must give a notice to the Company and ASX within the prescribed period (generally, within two business days).

A person has a substantial holding in the Company if:

- that person and that person's associates have a relevant interest in 5% or more of the voting shares in the Company; or
- that person has made a takeover bid for voting shares in the Company.

A failure to give such a notice is an offence (which can attract financial penalties and, in the case of individuals, imprisonment), but does not preclude the shareholder from exercising the rights attaching to the relevant shares.

12.12.2 Germany

Germany qualifies as the home member state of the Company pursuant to Section 2, para. 13, no. 3 of the German Securities Trading Act (*Wertpapierhandelsgesetz*). Holders of the Shares and derivatives or other financial instruments linked to the Shares may be subject to notification obligations pursuant to the German Securities Trading Act (*Wertpapierhandelsgesetz*) and the German Securities Trading Reporting Ordinance (*Wertpapierhandelsanzeigeverordnung*). The following description summarises these obligations. The Company's shareholders are advised to consult with their own legal advisers to determine whether the notification obligations apply to them.

Section 33 of the German Securities Trading Act (*Wertpapierhandelsgesetz*) provides that, at the time the shares of a company whose country of origin is Germany are listed for the first time, any shareholder who holds 3% or more of the voting rights must notify the respective issuer and BaFin without undue delay (*unverzüglich*), but no later than within four trading days after the date of the listing and must also disclose the amount of its current share of the voting rights. Moreover, any shareholder who, through acquisition, sale or otherwise, reaches, exceeds or falls below 3%, 5%, 10%, 15%, 20%, 25%, 30%, 50% or 75% of the voting rights in a listed company whose country of origin is Germany must notify the respective issuer and BaFin without undue delay (*unverzüglich*), but no later than within four trading days after the event, of having reached, exceeded or fallen below the respective threshold and must also disclose the amount of its current share of the voting rights. The prescribed time limit commences at the time when the shareholder required to give the notification has actual knowledge or should have had knowledge under the circumstances that its share of voting rights reached, exceeded or fell below the stated thresholds. It is assumed that the shareholder required to give the notification has gained knowledge about the shareholding two trading days after reaching, exceeding or falling below the aforementioned thresholds. If the shareholder's percentage of voting rights has reached, exceeded or fallen below the thresholds due to a change of the total number of voting rights in the company, the notification period begins at the point when the shareholder required to give the notification learns that the threshold is triggered, but no later than the publication of the change of the total number of voting rights by the issuer. The German Securities Trading Act (*Wertpapierhandelsgesetz*) defines "holding" as the existence of an unconditional claim related to a transfer of shares without an undue delay or a respective obligation. Section 34 of the German Securities Trading Act (*Wertpapierhandelsgesetz*) contains various rules which are supposed to ensure that the shareholding is attributed to the person who

actually controls the voting rights relating to the shares. For example, shares held by a third person will be attributed to another person if that other person exercises control over the person holding the shares. This also applies to shares which are held by a third person on behalf of another person or a person controlled by such other person as well as voting rights which the person can exercise free of instructions as a proxy.

Corresponding disclosure obligations towards the issuer and BaFin apply to reaching, exceeding, or falling below the thresholds mentioned above, except for the threshold of 3%, when the relevant shareholder directly or indirectly holds instruments (i) which either, on maturity, give their holder an unconditional right to acquire already issued shares carrying voting rights in the issuer or the discretion as to the right to acquire such shares in the issuer or (ii) which are referenced to already issued shares of the issuer carrying voting rights and have similar economic effect to the instruments mentioned under (i), irrespective of whether or not they confer a right to a physical settlement (section 38 of the German Securities Trading Act (*Wertpapierhandelsgesetz*)). In particular such instruments comprise transferable securities, options, futures, swaps, forward rate agreements and contracts for differences. The number of voting rights relevant for the notification requirement is generally calculated by reference to the full nominal amount of shares underlying the instrument, except where the instrument provides exclusively for a cash settlement.

Moreover, pursuant to section 39 of the German Securities Trading Act (*Wertpapierhandelsgesetz*), the notification obligation applies if the sum of the voting rights in one issuer, which are to be taken into account pursuant to section 33, para. 1, sentence 1 or para. 2 of the German Securities Trading Act (*Wertpapierhandelsgesetz*) with respect to holdings of shares and section 38, para. 1, sentence 1 of the German Securities Trading Act (*Wertpapierhandelsgesetz*) with respect to holdings of instruments, reaches, exceeds or falls below the thresholds mentioned above, except for the threshold of 3%.

The notification may be made either in German or English and shall be submitted through BaFin's Reporting and Publishing Platform (*MVP-Portal*). As a domestic issuer within the meaning of the German Securities Trading Act (*Wertpapierhandelsgesetz*), the Company must publish this notification without undue delay, but no later than three trading days after receipt of the notification in various media distributed across the entire EEA in accordance with section 16 in conjunction with section 3a of the German Securities Trading Reporting Ordinance (*Wertpapierhandelsanzeigerordnung*) and submit the publication to BaFin. The issuer must also transmit the notification to the company register (*Unternehmensregister*) maintained electronically by the German Federal Ministry of Justice within the meaning of section 8b of the German Commercial Code (*Handelsgesetzbuch*) for storage without undue delay, but not prior to the publication.

In case of non-compliance with the disclosure obligation for example failing to file a notice or providing false information, the shareholder is precluded from exercising the rights relating to those shares (including voting rights and the right to receive dividends) for the duration of the failure in accordance with the provisions of section 44 of the German Securities Trading Act (*Wertpapierhandelsgesetz*). If the disclosure requirements are violated in a wilful or grossly negligent manner, any rights relating to the shares will be suspended for a six-month period. Furthermore, a fine can be imposed in the case of non-compliance with the disclosure requirements, and BaFin will publish its measures and sanctions taken on its website.

Moreover, pursuant to section 43 of the German Securities Trading Act (*Wertpapierhandelsgesetz*), a shareholder reaching or exceeding 10% or more of the voting rights relating to shares of an issuer must inform the issuer of the objective being pursued through the acquisition of voting rights and the sources of the funds used for the purchase, in each case within 20 trading days from such shareholder acquiring the relevant percentage of the shares. In particular, the shareholder must disclose whether it intends to (i) pursue any strategic objectives with respect to the company (as opposed to profits from trading in the shares), (ii) acquire further voting rights within the following twelve months, (iii) exert any influence or control over the company's management or supervisory board and (iv) make any significant changes to the company's capital structure, especially with respect to debt-to-equity ratio and dividend policy. The Company's articles of association have not made use of the option to release shareholders from this disclosure obligation. If the above objectives change, such change needs to be disclosed to the issuer within 20 trading days of such change.

12.13 Managers' / Directors' transactions

12.13.1 Australia

As an ASX-listed company, the Company must announce to ASX:

- the notifiable interests of a director newly appointed to the Company, within five business days of the appointment of that director;
- any change in the notifiable interests of a director of the Company, within five business days of the date of that change; and
- the notifiable interests of a director who ceases to be a director of the Company, within five business days of that person ceasing to be a director of the Company.

Notifiable interests of a director include the director's relevant interest in the Company's Shares and any interests in contracts to which the director is a party or under which the director is entitled to a benefit, and that confer a right to (among other things) call for or deliver Shares in the Company or a related body corporate.

The Company has a securities trading policy ("**Securities Trading Policy**") which sets out the Company's policy on the sale and purchase of the Company's securities by staff and key management personnel. The Company's key management personnel comprise its directors, executives and those employees directly reporting to the Managing Director.

Under the Securities Trading Policy:

- permanent insiders must obtain the prior written approval of the Managing Director before dealing in the Company's securities (other than any dealing by the Chairman, which requires the prior written approval of the Board of Directors and dealing by the Managing Director which requires the written approval of the Chairman); and
- other than in exceptional circumstances, key management personnel must not deal in securities of the Company during the following periods:
 - o 30 days prior to, and 48 hours after, the release of the Company's annual financial report;
 - o 30 days prior to, and 48 hours after, the release of the Company's consolidated interim report; and
 - o 30 days prior to, and 48 hours after, the release of the Company's quarterly reports (if applicable).

In addition, under the Australian Corporations Act, any person who possesses price sensitive information relating to a company or its securities is prohibited (subject to limited exceptions) from acquiring, disposing of or applying for those securities or procuring others do so, and from communicating the information to third parties where the person knows or ought reasonably know that the person to whom the information is communicated would or would be likely to acquire, dispose of or apply for those securities, or procure others do so.

12.13.2 Germany

The Company is subject to the provisions of the Market Abuse Regulation on disclosure of transactions by persons discharging managerial responsibilities within the Company (the "**Managers**") and persons closely associated with them. According to the rules set out in the Market Abuse Regulation, the Managers are obliged to notify the Company and BaFin within three working days regarding any of their transactions in Shares or financial instruments linked to them, particularly derivatives. This obligation also applies to persons closely associated with a Manager. The Company is obliged to promptly, and in no event later than two business days after the transaction, publish the information received in accordance with the foregoing and to simultaneously notify BaFin of the publication. Notification is not required if the sum of all transactions involving a Manager or persons closely associated with him or her is less than EUR 20,000 in a given calendar year.

A Manager is any member of the Company's administrative, management or supervisory body or another senior executive who has regular access to inside information relating directly or indirectly

to the Company and power to take managerial decisions affecting the future developments and business prospects of the Company. Persons closely associated with the Manager are (i) spouses and partners considered to be equivalent to a spouse in accordance with national law, (ii) dependent children, in accordance with national law, (iii) other relatives who have shared the same household as the Manager for at least one year on the date of the transaction concerned and (iv) legal persons, trusts or partnerships, the managerial responsibilities of which are discharged by the Manager or any of the aforementioned parties, which are directly or indirectly controlled by a Manager or such a party, which are set up for the benefit of a Manager or such a party or whose economic interests are substantially equivalent to those of a Manager or such a party. Non-compliance with the notification requirements may result in a fine.

Furthermore, the Market Abuse Regulation imposes a closed period of 30 calendar days prior to the announcement of interim financial statements or annual financial statements which the Company is obliged to publish, during which a Manager shall not conduct any transactions in Shares or financial instruments linked to them, particularly derivatives, or act on behalf of a third party in relation to such transactions.

12.14 Short selling regulation (ban on naked short selling)

12.14.1 Australia

Under section 1020B of the Australian Corporations Act, the short selling of securities is only permitted under certain conditions. In particular, "naked" short selling of securities (where a person sells a security - including shares, among other financial products - in circumstances where, at the time of sale, the seller does not have a presently exercisable and unconditional right to vest the share in the buyer) is prohibited in Australia.

Further information in relation to short selling in Australia is set out in ASIC RG 196 *Short selling*, which is available on ASIC's website at <https://asic.gov.au>.

12.14.2 Germany

Pursuant to Regulation (EU) no. 236/2012 of the European Parliament and of the Council of 14 March 2012 on short selling and certain aspects of credit default swaps (the "**Short Selling Regulation**"), the European Commission's delegated regulation for the purposes of detailing the Short Selling Regulation, and the German EU Short Selling Implementation Act (*EU-Leerverkaufs-Ausführungsgesetz*) of 15 November 2012, the short-selling of the shares is only permitted under certain conditions. In addition, under the provisions of the Short Selling Regulation, significant net-short selling positions in the shares must be reported to BaFin and published if they exceed a specific percentage. The reporting and publication process is detailed in the German Regulation on Net-Short Positions (*Netto-Leerverkaufspositionsverordnung*) of 17 December 2012. The net short-selling positions are calculated by offsetting the short positions of a natural person or legal entity in the shares with its long positions in such shares. The details are regulated in the Short Selling Regulation and the other regulations the European Commission has enacted on short-selling. In certain situations described in the Short Selling Regulation, BaFin may restrict short-selling and comparable transactions.

13. INFORMATION ON THE GOVERNING BODIES OF THE COMPANY

13.1 Overview

As an Australian public company limited by shares, the Company's governing bodies are the Board of Directors and the general meeting of Shareholders. The responsibilities and powers of these government bodies are determined predominantly by the Australian Corporations Act and the Company's Constitution.

13.2 Board of Directors

13.2.1 General information

The role of the Company's Board of Directors is to provide overall strategic guidance and effective oversight of management.

Subject to any specific requirements under the Australian Corporations Act, the ASX Listing Rules or the Company's Constitution, the day to day business of the Company is also managed by the Board of Directors, who may exercise all of the powers of the Company except for those which require approval of the general meeting of shareholders (see section "13.3.1.5 *Passing resolutions at a general meeting of Shareholders*"). Specific responsibilities ascribed to the Company's Board of Directors are set out in the board charter (see section "13.2.2 *Board Charter*"). The Company's Board of Directors is permitted under the Company's Constitution to delegate any of their powers to one or more persons or committees.

Under Australian law, the Directors of the Company are subject to certain duties, including to act in good faith in the interests of the company, to act for a proper purpose, not to fetter their discretion, to exercise care, skill and diligence, to avoid conflicts of interest, not to use their position to their advantage, and not to misappropriate company property. Pursuant to section 14.1 of the Company's Constitution, the Company's Board of Directors is to comprise of not less than three and not more than nine Directors (excluding any alternate Directors). The quorum for a meeting of the Board of Directors is two Directors.

Subject to the Company's Constitution, the Company may elect a person as a Director by resolution passed at a general meeting of Shareholders. A Director elected at a general meeting of Shareholders is taken to have been elected with effect immediately after the end of that meeting, unless the resolution by which the Director was appointed or elected specifies a different time.

At the Company's annual general meeting of Shareholders each year, one third of the Directors (other than the Managing Director) or, if their number is not a multiple of three, then the number nearest one-third, must retire from office (and each such Director who retires is eligible to seek re-election at that annual general meeting).

In addition, no Director (except the Managing Director) may hold office without re-election past the longer of (i) the third annual general meeting of Shareholders following their appointment or election, and (ii) three years.

The Directors to retire at each annual general meeting of Shareholders are those who have been in office the longest since their last election. Where persons have become Directors on the same day, unless otherwise agreed amongst themselves, the Directors to retire by rotation will be determined by drawing lots.

The Directors may also at any time appoint a person to be a Director, either to fill a casual vacancy or as an addition to the existing Directors. Any Director so appointed holds office only until the next following annual general meeting of Shareholders and is then eligible for re-election (but will not be taken into account in determining the Directors who are to retire by rotation (if any) at that meeting).

13.2.2 Board Charter

The Company has established a board charter ("**Board Charter**") which sets out:

- (a) the respective roles and responsibilities of the Board of Directors and management; and
- (b) those matters that are expressly reserved to the Board of Directors and those delegated to management.

Under the Board Charter:

- (a) responsibility for the day-to-day operations and administration of the Company is delegated to the Company's Managing Director;
- (b) specific limits on the authority delegated to the Chief Executive Officer/Managing Director and the team of executives as appointed by the Company must be set out in the delegated authorities approved by the Board of Directors; and
- (c) the role of management is to support the Managing Director and implement the running of the general operations and financial business of the Company, including instilling and reinforcing the Company's values, in accordance with the delegated authority of the Board of Directors.

Specific responsibilities reserved for the Board of Directors under the Board Charter include:

- (a) driving the strategic direction of the Company and defining the Company's purpose, ensuring appropriate resources are available to meet objectives and monitoring management's performance;
- (b) approving the Company's statement of values and Code of Conduct to ensure the desired culture within the Company is maintained and monitoring the implementation of such values and culture at all times;
- (c) ensuring that an appropriate framework exists for relevant information to be reported by management to the Board of Directors;
- (d) when required, challenging management and holding it to account;
- (e) appointment and replacement of the Managing Director, other senior executives and the Company Secretary, and the determination of the terms and conditions of their employment (including remuneration and termination);
- (f) approving the Company's remuneration framework and ensuring it is aligned with the Company's purpose, values, strategic objectives and risk appetite;
- (g) monitoring the timeliness and effectiveness of reporting to Shareholders;
- (h) reviewing and ratifying systems of audit, risk management (for both financial and non-financial risk) and internal compliance and control, codes of conduct and legal compliance to minimise the possibility of the Company operating beyond acceptable risk parameters;
- (i) approving and monitoring the progress of major capital expenditure, capital management and significant acquisitions and divestitures;
- (j) approving and monitoring the budget and the adequacy and integrity of financial and other reporting such that the financial performance of the Company has sufficient clarity to be actively monitored;
- (k) approving the annual, half yearly and quarterly accounts;
- (l) approving significant changes to the organisational structure;
- (m) approving decisions affecting the Company's capital, including determining the Company's dividend policy and declaring dividends;
- (n) recommending to Shareholders the appointment of the external auditor as and when their appointment or re-appointment is required to be approved by them (in accordance with the ASX Listing Rules if applicable);
- (o) ensuring a high standard of corporate governance practice and regulatory compliance and promoting ethical and responsible decision making; and

- (p) procuring appropriate professional development opportunities for Directors to develop and maintain the skills and knowledge needed to perform their role as Directors effectively and to deal with new and emerging business and governance issues.

13.2.3 Members of the Board of Directors

As of the date of this Prospectus, the Company's Board of Directors consists of the following members:

Name	Born	Director since/from	Last elected / appointed	End of current term ⁽²⁾	Role
Gavin Rezos	13 April 1961	4 September 2019	25 November 2020	At the 2023 annual general meeting of the Company	Non-Executive Chairman
Dr Francis Wedin	12 March 1986	4 September 2019	4 September 2019 ⁽¹⁾	Not required to retire	Managing Director/CEO
Annie Liu	21 August 1979	18 March 2021	29 November 2022	At the 2025 annual general meeting of the Company	Non-Executive Director
Dr Heidi Grön	16 May 1973	25 March 2021	29 November 2021	At the 2023 or 2024 annual general meeting of the Company ⁽³⁾	Non-Executive Director
Josephine Bush	28 August 1969	16 April 2021	29 November 2021	At the 2023 or 2024 annual general meeting of the Company ⁽³⁾	Non-Executive Director
Ranya Alkadamani	22 February 1982	29 April 2020	29 November 2021	At the 2023 or 2024 annual general meeting of the Company ⁽³⁾	Non-Executive Director
Dr Günter Hilken	11 September 1954	23 March 2022	29 November 2022	At the 2025 annual general meeting of the Company	Non-Executive Director
Mark Skelton	15 March 1959	19 April 2022	29 November 2022	At the 2025 annual general meeting of the Company	Non-Executive Director

⁽¹⁾ As Managing Director/CEO, Dr Francis Wedin is not required to seek re-election.

⁽²⁾ One third of Directors (other than the Managing Director) are required to retire from office at the Company's annual general meeting, but are eligible for re-election, each year. This equates to two Directors each year based on the number of Directors currently holding office.

⁽³⁾ As Dr Heidi Grön, Josephine Bush and Ranya Alkadamani were last elected as Directors on the same day, unless otherwise agreed amongst themselves, one of them will retire alongside Gavin Rezos at the 2023 annual general meeting by rotation to be determined by drawing lots. The remaining two will retire at the 2024 annual general meeting of the Company. Refer to section 13.2.1 for further details.

Gavin Rezos (Non-Executive Chairman):

Mr Rezos has many years of Australian and international corporate, project finance and investment banking experience and is both a former Head of Legal and Compliance across multiple countries for the HSBC Group and an investment banking Director of HSBC Group with regional roles during his career based in London, Sydney and Dubai. Mr Rezos has held chairman, board and CEO positions of companies in the materials, technology and resources sector in Australia, the United Kingdom, the United States and Singapore and was formerly a non-executive director of Iluka Resources and of Rowing Australia, the peak Olympics sports body for rowing in Australia. He is a principal of Viaticus Capital.

During the past five years, Mr Rezos has been a member of the administrative, management or supervisory bodies or partner of the following companies and partnerships:

Existing mandates:

- Non-Executive Chairman of Resource & Energy Group Limited, Sydney, Australia
- Non-Executive Chairman of Kuniko Limited, Perth, Australia
- Director and company secretary of Floreant Ambo Pty Ltd, Kensington, Australia
- Director of Viaticus Capital Pty Ltd, Kensington, Australia
- Director of Aymon Pacific Pty Ltd, Kensington, Australia
- Director of Mirimar Property Partners Pty Ltd, Midland, Australia

Discontinued mandates:

- Executive and non-executive Chairman of Alexium International Group Limited, Melbourne, Australia (2010-2018)
- Director and company secretary of Ridgeline Asset Pty Ltd., Joondalup, Australia

Mr Rezos may be contacted at the Company's business address.

Dr Francis Wedin (Managing Director/CEO):

Dr Wedin is a battery raw materials industry executive, with a diverse career spanning four continents and multiple commodities. Dr Wedin co-founded Vulcan Group's Zero Carbon Lithium™ Project in Germany. Dr Wedin was previously Executive Director of successful ASX-listed Exore Resources Ltd (ASX:ERX). During this time, he discovered and defined two new JORC lithium resources, on two continents, in under a year. This included Lynas Find, which was bought by Pilbara Minerals to become part of its large Pilgangoora Lithium Project, now in production (ASX:PLS). Dr Wedin has a PhD and BSc (Hons) in geology and mineral exploration, and an MBA in renewable energy. He is a Fellow of the Geological Society, London, and a member of the Australasian Institute of Mining and Metallurgy.

During the past five years, Dr Wedin has been a member of the administrative, management or supervisory bodies or partner of the following companies and partnerships:

Existing mandates:

- Director of Magni Associates Pty Ltd, Perth, Australia
- Director of Wedin Pty Ltd, Perth, Australia
- Director of VTI Resources Pty Ltd, Perth, Australia

Discontinued mandates:

- Executive Technical Director of Exore Resources Limited, Subiaco, Australia (2015-2019)

Dr Wedin may be contacted at the Company's business address.

Annie Liu (Non-Executive Director):

Ms Liu was the Executive Director at Ford (Model E) from 2022 to 2023. In this role, Ms Liu applied her knowledge of global technology sourcing, especially in relation to batteries and raw materials, as the business ramps to produce 2 million BEVs globally by late 2026. Prior to her role at Ford, Ms Liu was Head of Supply Chain, Battery and Energy at Tesla, from 2017 to 2020. At Tesla, Ms Liu oversaw multi-billion-dollar partnerships with battery cell and raw material suppliers to help meet Tesla's growth plan. Ms Liu led a global team of supply chain managers and engineers to support the battery and energy business.

Ms Liu joined Tesla after a 15-year career with Microsoft, holding various positions with Xbox, new product introductions and strategic sourcing for various products within the organisation. Ms Liu started her career with Sun Microsystems as a manufacturing engineer. She holds a Bachelor of Science in Engineering from the University of California, Berkeley.

During the past five years, Ms Liu has been a member of the administrative, management or supervisory bodies or partner of the following companies and partnerships:

Existing mandates:

- Principal of Alto Group, Inc., Kirkland Washington
- Principal of Alto Group Hong Kong Limited, Hong Kong

Discontinued mandates:

- Executive Director of Ford (Model E), Palo Alto California

Ms Liu may be contacted at the Company's business address.

Dr Heidi Grön (Non-Executive Director):

Dr Grön is a chemical engineer with more than 20 years' experience in the chemicals industry. Since 2007, Dr Grön has been a senior executive with Evonik, a specialty chemicals company. At Evonik, Dr Grön is currently responsible for Production and Technology and for Global product safety including impact assessment and development of solutions for the EU Chemicals Strategy for Sustainability as well as the management of Evonik's major investment volumes and production network.

During the past five years, Ms Grön has not been a member of the administrative, management or supervisory bodies or partner of any companies or partnerships.

Dr Grön may be contacted at the Company's business address.

Josephine Bush (Non-Executive Director):

Ms Bush is a qualified solicitor, and chartered tax adviser, as well as earning the CFA ESG investing qualification and a sustainable finance certification. She has an MA in Law from Cambridge University. Ms Bush was a senior partner at EY for 14 years specialising in the renewable energy sector. She built and led the UK and Ireland Renewables Tax Practice, led on market leading transactions such as structuring for the initial public offerings of several environmental yieldcos, and developed latterly the EY global renewables business plan. She was a member of the Ernst & Young Power and Utilities Board and UK&I Governance Board.

During the past five years, Ms Bush has been a member of the administrative, management or supervisory bodies or partner of the following companies and partnerships:

Existing mandates:

- Non-executive director of Net Zero Now Ltd, London, United Kingdom
- Non-executive director of Foresight Sustainable Forestry Company Plc, London, United Kingdom
- Non-executive director of Blackfinch Renewable Energy Investment Trust PLC, Brockworth, United Kingdom
- Director of JRB Consulting Ltd, Bristol, United Kingdom
- Director of Sustineri Strategy Ltd, Maidenhead, United Kingdom

- Member of Investment Committee of Gresham House British Sustainable Infrastructure Fund, London, United Kingdom
- Strategic Advisor of Sustainable Finance Guernsey, St. Peter Port, Guernsey

Discontinued mandates:

- Partner of Ernst & Young Global Limited, London, United Kingdom, (2005-2020)
- Non-executive director of Foresight Forestry Company PLC, London, United Kingdom
- Non-executive director of Next Energy Solar Fund PLC, St. Peter Port, Guernsey

Ms Bush may be contacted at the Company's business address.

Ranya Alkadamani (Non-Executive Director):

Ms Alkadamani holds a Master in International Relations and International Communications and a Bachelor in Media from Macquarie University. Ms Alkadamani is currently Founder and CEO of Impact Group International, a strategic communications consultancy focused on advice to impact investors, philanthropists and innovative social impact programs. Ms Alkadamani works extensively in the impact investment space in Australia and internationally and has a strong network of clients and investors in the clean energy and renewables sector. She is also a Non-Executive Director of Australian Associated Press, Australia's only independent newswire, Director of the Impact Investment Summit, Asia Pacific and an advisory board member at Murdoch University. Ms Alkadamani was formerly Strategic Communications and External Affairs Director of Andrew Forrest's Minderoo Foundation and Minderoo Group, Press Secretary to former Australian Prime Minister, Kevin Rudd during his time as Australian Foreign Minister and a spokesperson for the Australian Department of Foreign Affairs and Trade.

During the past five years, Ms Alkadamani has been a member of the administrative, management or supervisory bodies or partner of the following companies and partnerships:

Existing mandates:

- Chief Executive Officer of Impact Group International Pty Ltd, Castle Hill, Australia
- Director of Impact Group International Investments Pty Ltd, Castle Hill, Australia
- Non-Executive Director, Australian Associated Press, Paddington, Australia

Discontinued mandates:

None

Ms Alkadamani may be contacted at the Company's business address.

Dr Günter Hilken (Non-Executive Director):

Dr Hilken has over 35 years' experience in and a deep understanding of the German chemicals, renewables and infrastructure investment sectors and, through leading industry advocacy associations, the German Government at the State and Federal level. Dr Hilken's experience and connections will help Vulcan ensure that geothermal energy becomes a foundation of Germany's supply of sustainable and secure renewable energy as Germany diversifies away from local carbon-based energy sources and Russian energy. Dr Hilken is also a Senior Advisor to Macquarie Asset Management, a Director of Currenta, a member of the Executive Board of the German Federation of Industrial Energy Consumers (VIK) as well as a Member of the Supervisory Board of Currenta. He was previously CEO of Currenta for 9 years, held senior executive roles with Bayer in Germany, the US, Canada and Asia and was a Director of RWE Power AG.

During the past five years, Dr Hilken has been a member of the administrative, management or supervisory bodies or partner of the following companies and partnerships:

Existing mandates:

- Supervisory Board member of Currenta GmbH & Co OHG, Leverkusen, Germany
- Senior advisor to Macquarie Asset Management, Sydney, Australia

Discontinued mandates:

- CEO of Currenta GmbH & Co OHG, Leverkusen, Germany
- Member of the supervisory board of RWE Power AG, Cologne, Germany

Dr Günter Hilken may be contacted at the Company's business address.

Mark Skelton (Non-Executive Director):

Mr Skelton has more than 35 years' experience including a 29-year tenure at BP and then at Fortescue Metals Group in multiple Project Director and senior management roles. A senior leader and advisor with a proven record in delivering major projects, business transformation and developing organisational capability within the mining, energy and oil and gas industries, Mr Skelton has extensive project experience in Australia and internationally. Mr Skelton holds a Bachelor of Science (Honours), Mechanical Engineering from the University of Greenwich and is a Chartered Engineer registered by the Institute of Mechanical Engineers (UK). Currently a director of a private consulting company, Mr Skelton has been involved in delivering and providing strategic advice on Definitive Feasibility Study (DFS) and development stages of large-scale projects, including mineral resources, renewable energy and LHM plants in Western Australia. With a focus on excellence in project development and delivery, Mr Skelton has assisted with the execution of projects from feasibility phase to full sanction, including assisting with the award of major contracts.

During the past five years, Mr Skelton has been a member of the administrative, management or supervisory bodies or partner of the following companies and partnerships:

Existing mandates:

- Director of Safhaven Pty Ltd, West Perth, Australia
- Director of Crosshaven Consulting Pty Ltd, West Perth, Australia
- Director of Longhaven Pty Ltd, West Perth Australia
- Project director for Verdant Minerals Pty Ltd, Stuart Park, Australia

Discontinued mandates:

- Consultant advisor of Worley Pty Ltd, Payneham, Australia

Mr Skelton may be contacted at the Company's business address.

13.2.4 Committees of the Board of Directors

Under the Company's Constitution, the Board of Directors can create committees in accordance with applicable laws.

As at the date of this Prospectus, the Company has a People and Performance Committee ("**People and Performance Committee**"), an Audit, Risk and ESG Committee ("**Audit, Risk and ESG Committee**") and a Projects Oversight Committee ("**Projects Oversight Committee**"). Due to the current size and stage of development of the Company, the Company does not currently have a nomination committee. The Company has, however, established a charter to define the nomination committee's function, composition, mode of operation, authority and responsibilities, which (subject to replacement or repeal) will apply to any nomination committee established by the Company in the future.

13.2.4.1 People and Performance Committee

The role of the Company's People and Performance Committee is to provide assistance and recommendations to the Board of Directors in fulfilling its responsibilities in overseeing the:

- (a) overall remuneration strategy of the Company and its specific application to the Managing Director and direct reports, and the remuneration of non-executive Directors;
- (b) ensuring that the executive remuneration strategy demonstrates a clear relationship between key executive performance and remuneration;
- (c) recommending to the Board of Directors the remuneration of executive Directors;
- (d) ensuring incentives for non-executive directors do not conflict with their obligation to bring an independent judgement to matters before the Board of Directors;
- (e) reviewing the Company's recruitment, retention and termination policies and procedures for senior management; and
- (f) diversity strategy, policy, and practices of the Company.

The People and Performance Committee will also make decisions on behalf of the Board of Directors where such authority has been expressly delegated.

The People and Performance Committee comprises:

- (a) Gavin Rezos;
- (b) Ranya Alkadamani (Chair); and
- (c) Annie Liu.

The Company has established a charter ("**People and Performance Committee Charter**") to set out:

- (a) the specific responsibilities delegated by the Board of Directors to the People and Performance Committee; and
- (b) the People and Performance Committee's objectives, authority, responsibilities, composition and operation.

Under the People and Performance Committee Charter, the People and Performance Committee is intended to meet at least three times in each financial year.

13.2.4.2 Audit, Risk and ESG Committee

The role of the Company's Audit, Risk and ESG Committee is to assist the Board of Directors in monitoring and reviewing any matters of significance affecting the Company's financial reporting, compliance and its impacts on environment, social and governance matters.

The Audit, Risk and ESG Committee comprises:

- (a) Gavin Rezos;
- (b) Dr Heidi Grön; and
- (c) Josephine Bush (Chair).

The Company has established a charter ("**Audit, Risk and ESG Committee Charter**") to set the risk parameters and define the Audit, Risk and ESG Committee's function, composition, mode of operation, authority and responsibilities.

The Audit, Risk and ESG Committee Charter sets out (among other things) the specific responsibilities of the Audit, Risk and ESG Committee, including with respect to the internal audit function, relationship with external auditors and risk management.

Under the Audit, Risk and ESG Committee Charter, the Audit, Risk and ESG Committee is intended to meet at least twice in each financial year and additionally as circumstances may require for it to undertake its role effectively.

13.2.4.3 Project Oversight Committee

The Company's Project Oversight Committee provides more detailed advisory capacity and oversight of project-specific management, including the company's corporate governance framework and risk management including environmental, health and safety.

The Project Oversight Committee comprises:

- (a) Dr Günter Hilken;
- (b) Mark Skelton (Chair); and
- (c) Dr Heidi Grön.

The Company has established a charter ("**Project Oversight Committee Charter**") which (among other things) sets out the specific responsibilities delegated by the Board to the Project Oversight Committee and its objectives, authority, responsibilities, composition and operation.

Under the Project Oversight Committee Charter, the Project Oversight Committee is intended to meet, at a minimum, approximately two weeks prior to the scheduled Company Board meetings.

13.2.4.4 Nomination Committee

The Company recently established a Nomination Committee, which assists the Board in monitoring and reviewing any matters of significance affecting the composition of the Board and the team of executives as appointed by the Company.

The Nomination Committee comprises:

- (a) Ms Ranya Alkadamani (Chair);
- (b) Gavin Rezos;
- (c) Ms Josephine Bush; and
- (d) Mark Skelton, Dr Heidi Grön or Dr Günter Hilken (one or more of whom will attend each meeting).

The Company has established a charter ("**Nomination Committee Charter**") which (among other things) defines the Nomination Committee's function, composition, mode of operation, authority and responsibilities.

Under the Nomination Committee Charter, the Nomination Committee is intended to meet at least once in each financial year and additionally as circumstances require.

13.2.5 Remuneration of the members of the Board of Directors

The Directors are paid out of the funds of the Company, by way of remuneration for their services as Directors.

13.2.5.1 Resolution on the remuneration of the members of the Board of Directors

The total maximum remuneration of non-executive Directors is initially set by the Constitution and subsequent variation is by ordinary resolution of Shareholders in general meeting in accordance with the Constitution, the Australian Corporations Act and the ASX Listing Rules, as applicable. The total aggregate fixed sum will be divided between the Directors as the Directors determine from time to time or, failing agreement between them, in equal shares. The current total maximum remuneration for non-executive Directors has been set at A\$950,000 per annum, as approved by Shareholders at the Company's general meeting of Shareholders held on 29 November 2022.

The remuneration of an executive Director will be decided by the Board of Directors, without the affected executive Director participating in that decision-making process. Non-executive Directors

may not be paid (as part or whole of their remuneration) a commission on, or a percentage of, profits, or a commission on, or a percentage of, operating revenue, and no executive Director may be paid (as whole or part of their remuneration) a commission on, or percentage of, operating revenue.

In addition, a Director may be paid fees or other amounts (subject to any necessary Shareholder approval) as the Directors determine where a Director (being called upon) performs special duties or otherwise performs services outside the scope of the ordinary duties of a Director.

Directors are also entitled to be paid reasonable travelling, accommodation and other expenses incurred by them respectively in or about the performance of their duties as Directors.

13.2.5.2 Remuneration Policy

Vulcan Group's board remuneration policy is to ensure the remuneration package properly reflects the person's duties and responsibilities and that remuneration is competitive in attracting, retaining and motivating people of the highest quality. The Company has established a People and Performance Committee (see section "13.2.4.1 People and Performance Committee"), the purpose of which is (among other things) to provide assistance and recommendations to the Board of Directors in fulfilling its responsibilities in overseeing the overall remuneration strategy of the Company and its specific application to the Managing Director and direct reports, and the remuneration of non-executive Directors.

The pay and reward framework for key management personnel may consist of the following areas:

- (a) Fixed Remuneration – Base Salary
- (b) Variable Remuneration – Annual Deferred Incentives
- (c) Variable Remuneration – Long-Term Incentives

The combination of these would comprise the key management personnel's total remuneration.

13.2.5.2.1 Fixed Remuneration – Base Salary

The fixed remuneration for each key management personnel ("**KMP**"), including the members of the Board of Directors, is influenced by the nature and responsibilities of each role and knowledge, skills and experience required for each position. Fixed remuneration provides a base level of remuneration which is market competitive and comprises a base salary inclusive of statutory superannuation or equivalent in the place of employment. It is structured as a total employment cost package. Key management personnel are offered a competitive base salary that comprises the fixed component of pay and rewards. External remuneration consultants may provide analysis and advice to ensure base pay is set to reflect the market for a comparable role.

During the financial year ending 30 June 2022, determination of executive remuneration was based upon the service of a dedicated remuneration advisor. Base salary for KMP is reviewed annually to ensure the KMP's pay is competitive with the market. The pay of KMP is also reviewed on promotion. There is no guaranteed pay increase included in any KMP's contract.

13.2.5.2.2 Variable Remuneration – Annual Deferred Incentives (ADI)

Discretionary bonuses may be paid to KMP annually, subject to the requisite Board of Directors and shareholder approvals (where applicable). Bonus payments relating to the financial year ended 30 June 2022 were paid in August 2022. For the twelve months ending 30 June 2023, KMP's have been set milestone-based key performance indicators which, if achieved, will lead to vesting of performance rights. Subsequent to end of the financial year ending 30 June 2022, the Company amended its financial year end to 31 December to align with European standards. Any future grant of performance rights will have milestones aligned to a financial year ending 31 December rather than the financial year ending 30 June.

13.2.5.2.3 Variable Remuneration – Long-Term Incentives (LTI)

Vulcan Group has the ability to grant long term incentives to its officers, employees and contractors through the issue of Shares, Performance Rights and/or options under the Company's incentive plans.

The purpose of Vulcan Group's incentive plan is to:

- reward officers, employees and contractors of Vulcan Group;
- assist in the retention and motivation of employees of Vulcan Group;
- incentivise Vulcan Group employees to grow shareholder value (by providing them with an opportunity to receive an ownership interest in the Company); and
- provide Directors with the opportunity to sacrifice a percentage of their Director's fees for a given financial year in exchange for the provision of Shares.

As at the date of this Prospectus, 8,382,801 Performance Rights and no options are on issue, which have been granted in accordance with the Company's incentive plans as described further below.

2018 Incentive Plan

On 30 November 2018, shareholders of the Company approved a performance rights plan under which the Board of Directors was provided with the discretion (subject to any requisite shareholder approval) to grant Performance Rights to eligible participants (including KMP) ("**2018 Incentive Plan**"). The 2018 Incentive Plan applies to Performance Rights granted prior to 8 October 2021.

Performance Rights granted under the 2018 Incentive Plan only vest if the applicable performance hurdles determined by the Board of Directors from time to time are achieved.

A summary of the key terms of the 2018 Incentive Plan is contained in the Company's notice of 2018 annual general meeting dated 31 October 2018, a copy of such notice of meeting is available on the Company's website at <https://v-er.eu/investor-centre/> or on ASX's website at www.asx.com.au.

2021 Incentive Plan

On 8 October 2021, the Company adopted a new incentive awards plan, under which the Board of Directors may (in their discretion) invite full or part time employees and directors of, and contractors to, the Company or associated bodies corporate to apply for the issue of Shares, Performance Rights or options ("**2021 Incentive Plan**"). The 2021 Incentive Plan was approved by shareholders on 29 November 2021.

As with the 2018 Incentive Plan, each Performance Right and option granted under the 2021 Incentive Plan will entitle the holder to subscribe for and be issued one Share upon the vesting and exercise of the security (unless the 2021 Incentive Plan or the specific invitation provides otherwise). Unless otherwise waived by the Board of Directors, Performance Rights and options will only vest and become exercisable if the applicable vesting conditions (if any) have been satisfied and the Board of Directors has notified the holder of that fact. options awarded under the Incentive Plan may be subject to payment of an "option exercise price".

Subject to applicable laws, the quantum of Performance Rights and options to be granted to eligible participants, as well as the vesting conditions (if any) applying to Performance Rights and options, will be determined by the Board of Directors from time to time (including having regard to the participant's role and responsibilities in Vulcan Group).

Performance Rights and options granted under the 2021 Incentive Plan may lapse (and therefore will not be able to vest and become exercisable) in certain circumstances specified in the 2021 Incentive Plan, including (among other things) where:

- the vesting conditions are not met or become incapable of being met (and are not waived by the Board of Directors);
- the holder ceases to be an eligible participant (for example, by ceasing to be an employee of Vulcan Group) prior to the vesting of the Performance Right/option, unless the Board of Directors exercises its discretion to vest the Performance Right/option or allow the Performance Right/option to remain unvested; or
- the Board of Directors deems that the Performance Rights/options should lapse due to the fraud, dishonesty or other improper behaviour of the holder under the rules of the Incentive Plan.

A summary of the key terms of the 2021 Incentive Plan is contained in the Company's notice of 2021 annual general meeting dated 22 October 2021, a copy of such notice of meeting is available on the Company's website at <https://v-er.eu/investor-centre/> or on ASX's website at www.asx.com.au.

13.2.5.3 Remuneration of the members of the Board of Directors in the short financial year ended 31 December 2022 and in the financial year ended 30 June 2022

The aggregate compensation made to Directors of the Company in the short financial year ended 31 December 2022 (in EUR) is set out below.

	Short-term Employee Benefit			Post-Employment	Share Based Payments Shares & Rights	Total
	Salary & Fees	Non-monetary benefits	Others	Super-annuation		
	EUR	EUR	EUR	EUR	EUR	EUR
Non-Executive Directors						
Mr Gavin Rezos	56,894	-	-	-	96,651	153,545
Ms Ranya Alkadamani	20,954	-	-	2,200	32,264	55,418
Dr Heidi Grön	23,154	-	-	-	9,315	32,469
Ms Annie Liu	21,500	-	-	-	9,315	30,815
Ms Josephine Bush	23,154	-	-	-	9,315	32,469
Dr Günter Hilken	21,500	-	-	-	3,720	25,220
Mr Mark Skelton	20,954	-	-	2,200	3,720	26,874
Managing Director/CEO						
Dr Francis Wedin	190,980	-	-	20,053	57,224	268,258
Total	379,090	-	-	24,453	221,524	625,068

The aggregate compensation made to Directors of the Company in the financial year ended 30 June 2022 (in EUR) is set out below.

	Short-term Employee Benefit			Post-Employment	Share Based Payments Shares & Rights	Total
	Salary & Fees	Non-monetary benefits	Others/ Bonus	Super-annuation		
	EUR	EUR	EUR	EUR	EUR	EUR
Non-Executive Directors						
Mr Gavin Rezos	110,769	-	-	-	491,262	602,031
Ms Ranya Alkadamani	40,982	-	-	4,098	139,074	184,154
Dr Heidi Grön	42,397	-	-	-	39,226	81,623
Ms Annie Liu	41,860	-	-	-	39,226	81,086
Ms Josephine Bush	45,159	-	-	-	39,226	84,385
Dr Günter Hilken	11,028	-	-	-	-	11,028
Mr Mark Skelton	8,046	-	-	804	-	8,850
Managing Director/CEO						
Dr Francis Wedin	259,323	-	115,438	25,932	-	400,693
Total	559,564	-	115,438	30,834	748,014	1,453,850

Under the Australian Corporations Act, shareholders of a listed company have the right to participate in a non-binding vote to approve the adoption of the remuneration report of the company, at each annual general meeting. The remuneration report is included in the directors' report and is required to contain a discussion of the Board of Directors' policy in relation to remuneration of key management personnel of the Company.

13.2.6 D&O Insurance

The Company has indemnified the Directors and certain officers for costs incurred, in their capacity as director or officer, for which they may be held personally liable, except where there is a lack of good faith. During the financial year ended 30 June 2022 and the short financial year ended 31 December 2022, respectively, the Company paid a premium in respect of a contract to insure the Directors and Executives of the Company against a liability to the extent permitted by the Australian Corporations Act.

13.2.7 Benefits upon termination / Pension payments

The services contracts of the Directors do not provide for benefits upon termination of such contracts.

The total amounts set aside or accrued by Vulcan Group to provide pension and other retirement benefits amount to EUR 66,288 and EUR 56,811 (superannuation Australia) in the financial year ended 30 June 2022 and the short financial year ended 31 December 2022, respectively.

13.2.8 Shares, options, Performance Rights and Performance Shares held by members of the Board of Directors

The following table sets out each current Director's relevant interest in Shares and other securities of the Company, to the knowledge of the Company, as at the date of this Prospectus.

Director	Ordinary Shares	Options	Performance Rights	Performance Shares
Dr Francis Wedin	16,458,561 ⁽¹⁾	-	142,000	-
Gavin Rezos	7,598,727 ⁽²⁾	-	1,000,000 ⁽²⁾	-
Annie Liu	77,379 ⁽³⁾	-	8,597	-
Heidi Grön	6,099	-	8,597	-
Josephine Bush	13,698	-	8,597	-
Ranya Alkadamani	276,000 ⁽⁴⁾	-	-	-
Dr Günter Hilken	-	-	14,237	-
Mr Mark Skelton	900	-	14,237	-
Total	24,431,364	-	1,196,265	-

⁽¹⁾ Includes 812,500 Shares held by Magni Associates Pty Ltd. Katy and Francis Wedin are the directors of Magni Associates Pty Ltd and it is 100% owned by Wedin Pty Ltd as trustee for the Wedin Family Trust.

⁽²⁾ 7,598,727 Shares and 1,000,000 Performance Rights are held by Vivien Enterprises Pte Ltd. The sole shareholder of Vivien Enterprises Pte Ltd is Joanne Ellen Rezos, the spouse of Gavin Rezos, and Vivien Enterprises Pte Ltd is an associate of Mr Gavin Rezos.

⁽³⁾ Includes 26,379 Shares held by Alto Group Inc and 51,000 Shares held by Alto Group Hong Kong Limited, both companies being related parties to Ms Liu.

⁽⁴⁾ Held by Impact Group International Investments Pty Ltd ATF the Alkadamani Investment Trust, a related party of Ms Alkadamani.

13.2.9 Potential conflicts of interest of the members of the Board of Directors

Under the Australian Corporations Act, a director of a company who has a material personal interest in a matter that relates to the affairs of the company generally is required to give the other directors notice of that interest. If the company is a public company (as the Company is), that director must not be present at a meeting where the matter is being considered or vote on the matter, unless the other directors or ASIC approve, or the matter is not one which requires disclosure under the Australian Corporations Act.

Under the Australian Corporations Act, failure of a director to disclose a material personal interest, or voting despite a material personal interest, does not affect the validity of a contract in which the director has an interest. A company's directors, when entering into transactions with the company, are subject to the common law and statutory duties to avoid conflicts of interest.

Other than set out in section 15 of this Prospectus, there are no conflicts of interest or potential conflicts of interest of the members of the Board of Directors as regards the Company on the one side and their private interests, membership in governing bodies of companies, or other obligations on the other side.

13.2.10 Certain information on the members of the Board of Directors

None of the members of the Board of Directors has been convicted in relation to fraudulent offences over the last five years.

Except as disclosed above, no member of the Board of Directors has been associated in his or her capacity as a member of an administrative, management or supervisory board, as a partner with unlimited liability, founder or senior manager with any bankruptcies, receiverships or liquidations or companies put into administration over the last five years. No public incriminations and/or sanctions have been brought against any of the members of the Board of Directors by statutory or regulatory authorities (including designated professional bodies) in the last five years nor have these individuals ever been disqualified by a court from acting as a member of the administrative, management or supervisory bodies of a company or from acting in the management or conduct of the affairs of any company.

There are no family relationships between the members of the Board of Directors.

13.3 General meetings of shareholders

13.3.1 General rules on meetings of shareholders

13.3.1.1 Calling a general meeting

A general meeting of Shareholders may be called from time to time by the Board of Directors or by individual directors.

In addition, Shareholders with at least 5% of the votes that may be cast at a general meeting of Shareholders may request a general meeting. If, following such a request by Shareholders, the Directors do not call a general meeting within 21 days, Shareholders holding 50% of the votes of all of the Shareholders who requested the general meeting may convene and hold a general meeting.

13.3.1.2 The annual general meeting

The Company must hold its annual general meeting of Shareholders at least once in each calendar year and within five months after the end of its financial year.

13.3.1.3 Notice of general meetings

As a company admitted to the official list of ASX, notice of a general meeting of Shareholders must be given to Shareholders at least 28 days before the date of the meeting. Under the Company's Constitution, a notice of meeting is taken as given on the day after the day on which it was posted. When calculating the notice period, the day on which the notice is sent and the day of the meeting are disregarded.

The notice of meeting must include the date and time of the meeting and the general nature of the business of the meeting. Notice of the meeting must be provided to all Shareholders, Directors, alternative Directors and any auditors of the Company.

13.3.1.4 Quorum at a general meeting

A quorum for a general meeting of Shareholders is two Shareholders attending in person, or by proxy, attorney or corporate representative.

13.3.1.5 Passing resolutions at a general meeting of Shareholders

Subject to any rights or restrictions for the time being attached to any class or classes of Shares, at a general meeting of Shareholders:

- on a show of hands, each Shareholder who is present in person or by proxy, attorney or corporate representative has one vote; and
- on a poll, each Shareholder who is present in person or by proxy, attorney or corporate representative has one vote in respect of each Share held by that person, or in respect of which that person is appointed a proxy, attorney or corporate representative (but, in respect of partly paid shares, will have such number of votes as bears the same proportion to the

total of such shares registered in the shareholders' name as the amount paid (not credited) bears to the total amounts paid and payable (excluding amounts credited)).

Resolutions at a general meeting of Shareholders are passed with a simple majority of the votes cast unless a higher majority (such as in respect of a "special resolution") or further requirements are provided for by the Australian Corporations Act, the ASX Listing Rules or the Company's Constitution.

A special resolution must be passed by at least 75% of the votes cast by Shareholders entitled to vote on the resolution.

Matters that require shareholder approval (by a resolution passed by a simple majority) under the Australian Corporations Act include:

- electing Directors to, and removing Directors from, the Company's Board of Directors,
- appointing the Company's auditor,
- entering into transactions that give related parties (including Directors) a financial benefit, and
- certain types of equal reductions in capital or equal share buy-backs.

The ASX Listing Rules also require shareholder approval for (among other things):

- the Company to issue, or agree to issue, any Shares to a related party (including a Director),
- subject to specified exceptions, the Company to issue, or agree to issue, more than 15% of the Company's total number of securities (calculated according to a prescribed equation) in any rolling 12-month period (see section 12.5),
- increase the total aggregate amount of directors' fees payable to all of the Company's Non-Executive Directors.

In addition, the Australian Corporations Act requires certain matters to be resolved by a company by special resolution, including:

- the change of name of the Company,
- modification or repeal of the Company's Constitution,
- the conversion of the Company from one type or form to another,
- a selective reduction of capital or selective share buy-back, and
- a decision to wind up the Company voluntarily.

13.3.1.6 Persons entitled to attend general meetings

A general meeting of Shareholders can be attended by:

- Shareholders, in person or by proxy, attorney or corporate representative;
- Directors and public officers of the Company;
- the Company's auditor; and
- any other person or persons approved by the chairman of the meeting.

13.3.1.7 Chairman

At each general meeting of Shareholders, the chairman of the Board of Directors will, if willing, preside as chairman of the meeting. The chairman of the meeting is responsible for the general conduct and procedures to be adopted at the meeting.

If the Directors have not elected a chairman of the Board of Directors or the chairman (or, in his absence, the vice chairman) is not present within 15 minutes after the time appointed for holding the general meeting of Shareholders or is unwilling to act:

- (a) the Directors present at the meeting may elect a chairman of the meeting; or
- (b) if no chairman is so elected by the Directors present, the Shareholders present may elect one of the Shareholders to be the acting chairman of the meeting.

13.3.1.8 Adjournment

The chairman may adjourn a meeting of Shareholders from time to time and from place to place, but no business may be transacted on the resumption of any adjourned Shareholders' meeting other than the business left unfinished at the meeting from which the adjournment took place.

A poll cannot be demanded on any resolution concerning the adjournment of a general meeting except by the chairman of the meeting.

13.3.1.9 Method of voting and demand for poll

Unless a poll is demanded, a resolution put to vote at a meeting of Shareholders must be decided on a show of hands.

A poll may be demanded on any resolution at a meeting of Shareholders (except a resolution concerning the election of the chairman of a meeting), before or immediately after the results of the vote on the resolution on a show of hands, by:

- (a) the chairman of the meeting;
- (b) at least five Shareholders present in person or by proxy, attorney or corporate representative having the right to vote on the resolution; or
- (c) any one or more Shareholders holding not less than 5% of the total voting rights of all Shareholders having the right to vote on the resolution;

In addition, under the Company's Constitution, the chairman of the meeting must demand a poll if, having regard to the number of votes cast by proxy and direct voting, the outcome of the poll would or may be different from the outcome of a show of hands.

Unless a poll is demanded, the Chairman's declaration of a decision on a show of hands is conclusive evidence of the fact, without proof of the number or proportion of the votes recorded in favour of or against the resolution.

13.3.1.10 Cancellation and postponement of general meetings

The Directors may at any time postpone a meeting of Shareholders by giving written notice to ASX. If a meeting of Shareholders is postponed for one month or more, the Company must give new notice of the postponed meeting. The only business that may be transacted at a general meeting the holding of which is postponed is the business specified at the original meeting.

In addition, the Directors may, by a resolution passed by a majority of Directors, cancel a meeting of Shareholders that has been called by the Directors by providing Shareholders with not less than two days' notice of such cancellation.

A meeting of Shareholders called following Shareholder requisition in accordance with the Australian Corporations Act may only be cancelled by the Directors if the application was requisition has been withdrawn by Shareholders.

13.3.1.11 Proxies

A Shareholder who is entitled to cast two or more votes at a meeting may appoint up to two proxies to attend and vote at the meeting on the Shareholder's behalf. The Company's Constitution contains provisions specifying the manner of lodgement of proxy appointment instruments.

A proxy need not be a Shareholder, and may be an individual or a corporation.

Where a Shareholder appoints two proxies or attorneys to vote at the same general meeting:

- (a) on a show of hands, if more than one proxy or attorney attends, neither may vote; and
- (b) on a poll, each proxy or attorney may only exercise votes in respect of those Shares or voting rights the proxy or attorney represents (and if the Shareholder has appointed two proxies and the appointment does not specify the proportion of votes that each proxy may exercise, each proxy may exercise half the votes).

13.3.1.12 Appointment of proxy

The appointment of a proxy is effective only if the instrument effecting the appointment is received by the Company at its registered office or such other place specified in the notice not less than:

- (a) 48 hours before the time at which the meeting is scheduled to commence; or
- (b) for an adjourned meeting, 48 hours before the resumption of the meeting.

13.3.1.13 Notice of revocation of proxy

Unless the Company has received a notice of revocation of a proxy before commencement of a meeting, a vote cast at the meeting by the appointed proxy is valid, even if, before the proxy votes, the Shareholder has:

- (a) sold their shares;
- (b) revoked the appointment of that proxy; or
- (c) died or become of unsound mind.

The appointment of a proxy is not revoked by the appointing Shareholder attending and taking part in the meeting, unless the appointing Shareholder actually votes at the meeting on the resolution for which the proxy is proposed to be used, in which case the proxy's appointment is deemed to be revoked with respect to voting on that resolution.

Generally, neither Australian law nor the Company's Constitution restrict the right of non-resident or foreign shareholders to hold Shares or to exercise any voting rights attached to these Shares.

13.3.1.14 Direct Voting

Under the Company's Constitution, the Board of Directors may determine that Shareholders may cast votes to which they are entitled on any or all of the resolutions (including any special resolution) proposed to be considered at, and specified in the notice convening, a general meeting of Shareholders by delivering a notice of the Shareholder's voting intention to the Company by post, fax, electronic or other means approved by the Board of Directors and otherwise in accordance with the Company's Constitution and regulations, rules and procedures made by the Board of Directors.

If the Board of Directors determines that votes may be cast by direct vote, the Board of Directors may make such regulations as it considers appropriate for the casting of direct votes, including regulations for:

- (a) the form, method and manner of voting by direct vote; and
- (b) the time by which the votes of Shareholders to be cast by direct vote must be received by the Company in order to be effective.

If the Board of Directors determines to allow voting by direct vote on a resolution at a general meeting of Shareholders, the notice of meeting must inform Shareholders of their right to vote by direct vote in respect of that resolution.

Direct votes are not counted if a resolution is decided on a show of hands.

The Company's Constitution sets out further information about voting by direct vote.

13.3.2 Virtual Shareholders' Meetings

Under the Company's Constitution, a general meeting of Shareholders can be held at two or more venues simultaneously using any technology that gives Shareholders as a whole a reasonable opportunity to participate.

Under the Australian Corporations Act, the Company is permitted to hold a "hybrid" general meeting of Shareholders (where the meeting is held both at a physical location and also through an online facility), provided that Shareholders as a whole are given a reasonably opportunity to participate. The Australian Corporations Act also allows Australian companies to hold entirely virtual general meetings of shareholders if their constitutions expressly require or permit the company to do so. As the Company's Constitution does not include such provisions, it is unable to hold purely virtual general meetings.

13.4 Corporate Governance

13.4.1 Australia

13.4.1.1 Recommendations published by the ASX Corporate Governance Council

As a company admitted to the official list of ASX, the Company is subject to the Corporate Governance Principles and Recommendations ("**Recommendations**") published by the ASX Corporate Governance Council ("**Council**"). The Recommendations set out recommended corporate governance practices for entities listed on the ASX that, in the Council's view, are likely to achieve good corporate governance outcomes and meet the reasonable expectations of most investors in most situations. The Council recognises, however, that different entities may legitimately adopt different governance practices, based on a range of factors, including their size, complexity, history and corporate culture. For that reason, the Recommendations are not mandatory and do not seek to prescribe the corporate governance practices that a listed entity must adopt.

Under the Recommendations, if the Board of Directors considers that a Recommendation is not appropriate to its particular circumstances, it is entitled not to adopt it. If it does so, however, it must explain why it has not adopted the recommendation – referred to as the "if not, why not" approach.

Each year the Company is required to give to ASX a corporate governance statement, which sets out the extent to which the Company has followed the Recommendations. If the Company has not followed a Recommendation for any part of the reporting period, its corporate governance statement must separately identify that Recommendation and the period during which it was not followed and state its reasons for not following the Recommendation and what (if any) alternative governance practices it adopted in lieu of the Recommendation during that period.

A copy of the Company's corporate governance policies and charters, and its most recent Corporate Governance Statement, are available on the Company's website at <https://v-er.eu/corporate-directory-and-governance/>. The Board believes that the Company's policies and practices comply with the recommendations set out in the Recommendations.

The Board of Directors consider that the Company has established corporate governance policies and procedures that are appropriate in light of the Company's size, nature and activities. The Company's Directors are committed to conducting the Company's business in an ethical manner and in accordance with the highest standards of corporate governance.

13.4.1.2 Code of Conduct

The Company has established a code of conduct ("**Code of Conduct**") to provide a framework for decisions and actions in relation to ethical conduct in employment. The Code of Conduct underpins the Company's commitment to integrity and fair dealing in its business affairs and to a duty of care to all employees, clients and stakeholders.

Pursuant to the Code of Conduct, the Company's primary objective is to build a successful exploration and production company that delivers material benefits to Shareholders and contributes to the development of the regions in which it works, whilst acting lawfully, ethically and responsibly.

13.4.1.3 Securities Trading Policy

A summary of Vulcan Group's Securities Trading Policy is set out in section "*12.13.1 Australia*".

13.4.2 Germany

As a public company limited by shares incorporated in Australia under the Australian Corporations Act and governed by the laws of Australia, the Company is not required to adhere to the German corporate governance regime applicable to stock corporations organised in Germany in addition to the Australian corporate governance regime.

14. MAJOR SHAREHOLDERS

The following table sets forth the direct shareholders and the ultimate controlling shareholders within the meaning of Sections 33 et seq. WpHG as of the date of this Prospectus, based on the Company's best knowledge.

Ultimate Shareholder	Direct Shareholder	Ownership of the Company (in %)*
Dr Francis Wedin	Dr Francis Wedin	10.91
Dr Francis Wedin and Katy Wedin ⁽¹⁾	Magni Associates Pty. Ltd	0.57
Stellantis	PSA Automobiles S.A.	7.98
Joanne Ellen Rezos ⁽²⁾	Vivien Enterprises Pte Ltd	5.30
Hancock Prospecting Pty Ltd ("HPPL") and subsidiaries of HPPL ⁽³⁾	HPPL and subsidiaries of HPPL	5.18
John Langley Hancock	n/a	3.53
Public float		66.53
Total		100.0

* Prior to the completion of the Private Placement (with issuance and settlement of the New Shares expected to occur on 12 May 2023)

⁽¹⁾ Katy and Francis Wedin are the directors of Magni Associates Pty Ltd and it is 100% owned by Wedin Pty Ltd as trustee for the Wedin Family Trust.

⁽²⁾ The Shares in which Ms. Joanne Ellen Rezos holds an (indirect) interest are held through Vivien Enterprises Pte Ltd. Ms. Joanne Ellen Rezos is the spouse of Mr Gavin Rezos (non-executive chairman of the Company) and Vivien Enterprises Pte Ltd is an associate of Mr Gavin Rezos.

⁽³⁾ Each of Georgina Hope Rinehart and Bianca Hope Rinehart (in her capacity as trustee of the Hope Margaret Hancock Trust) has greater than 20% of the voting power in HPPL.

15. TRANSACTIONS AND LEGAL RELATIONSHIPS WITH RELATED PARTIES

The following describes the material transactions and legal relationships that existed between the Company on the one hand and related parties (as defined in IAS 24) on the other hand in the short financial year ended 31 December 2022 and the financial years ended 30 June 2022, 2021, and 2020, and in the current financial year up to the date of the Prospectus.

According to IAS 24, related parties of the Company are entities or persons related to the Company, including:

- companies that are controlled by the Company, in which the Company has an interest that gives it a significant influence, or over which it has joint control;
- companies that are associated with the Company within the meaning of IAS 28, and that are not consolidated by Company, as well as joint-ventures in which the Company participates;
- principal shareholders whose shares give them control, joint control or a significant influence over the Company, as well as all companies and businesses over which these shareholders can exert a controlling influence and/or in which they hold more than 50% of the voting rights; and
- members of the Board of Directors (or their close family members), as well as entities controlled or significantly influenced by members of the Board of Directors (or their close family members), or in which those persons directly or indirectly hold significant voting power.

None of the related party transactions described below form part of the revenue of the Company.

15.1 Transactions and relationships with members of the Board of Directors

During the financial years ended 30 June 2020, 2021 and 2022, the short financial year ended 31 December 2022 and the current financial year up to the date of the Prospectus, Shares, Performance Shares and Performance Rights of the Company were placed with members of the Board of Directors as described in section "12.2 Development of the share capital over the past three years" and "12.3 Details of unquoted securities". During these same time periods, the members of the Board of Directors (including former Directors that have resigned) received an aggregate remuneration of A\$ 846,095, A\$ 4,426,021, EUR 1,453,850, EUR 625,067 and EUR 395,142, respectively. For a description of the current remuneration of the members of the Board of Directors, please refer to section "13.2.5.3 Remuneration of the members of the Board of Directors in the short financial year ended 31 December 2022 and in the financial year ended 30 June 2022".

On 6 July 2021, the Company issued 5,698 Shares and 45,587 Performance Shares to Dr Horst Kreuter in consideration for the acquisition of GGH (meanwhile merged with and into Vulcan Energie) following shareholder approval at an extraordinary general meeting held in June 2021. Dr Kreuter was a shareholder of GGH. The Company also completed the acquisition of GeoT (now: VESS), on 2 July 2021 for EUR 1. Dr Kreuter was the sole shareholder of GeoT. Dr. Kreuter will received 50% of any payments received from certain debtors to VESS, if these payments were made to VESS within 18 months of completion of the acquisition. For further details regarding the purchase by Vulcan Group of GGH (meanwhile merged with and into Vulcan Energie), Gec-co (now: VEE) and GeoT (now: VESS) from Dr Horst Kreuter, member of the Board of Directors of the Company between December 2019 and March 2021, and Thorsten Weimann (not a member of the Board of Directors) during the financial year ended 30 June 2022, see section "9.1.2.1 Global Geothermal Holding UG" and "9.1.2.2 gec-co Global Engineering & Consulting-Company GmbH and GeoThermal Engineering GmbH".

During the financial year ended 30 June 2020, Dr Horst Kreuter was paid A\$43,474 in consulting fees, prior to becoming a member of the Board of Directors of the Company. On 4 September 2019, 13,200,000 Performance Shares were issued to Dr Francis Wedin and Dr Horst Kreuter in their capacity as vendors in connection with the acquisition by Vulcan Group of 100% of the issued capital of Vulcan Energy Resources Europe Pty Ltd, which were converted into Shares on a one for one basis on 28 February 2020, 15 January 2021 and 17 December 2021, respectively, as a result of the relevant milestone being reached upon Vulcan Group entering into the lithium offtake agreements with Stellantis, Volkswagen, Renault and Umicore (see section "9.16.2 Lithium Offtake Agreements").

15.2 Transactions and relationships with related parties of members of the Board of Directors

During the financial years ended 30 June 2020, 2021 and 2022, the short financial year ended 31 December 2022 and the current financial year up to the date of the Prospectus, Shares, Performance Shares and Performance Rights of the Company were placed with related parties of members of the Board of Directors as described in section "12.2 Development of the share capital over the past three years" and "12.3 Details of unquoted securities".

During the short financial year ended 31 December 2022, payments relating to ESG and risk consulting services fees of EUR 28,089 were made to JRB Consulting Ltd, a related party of Ms Josephine Bush. As at 31 December 2022, EUR 4,954 was payable to Sustineri Strategy Ltd, a related party of Josephine Bush for ESG and risk consulting services.

During the financial year ended 30 June 2022, payments for consulting fees of EUR 52,834 were made to Alto Group Inc., a related party of Ms Annie Liu. A capital raising fee relating to the placement of shares to sophisticated investors on 6 February 2021 in an amount of EUR 30,834 was paid to Viaticus Capital Pty Ltd, a company related to Mr Rezos. Moreover, payments for corporate advisory services outside of Australia of EUR 28,170 had been made to Viaticus Capital. The outstanding balance to Viaticus Capital at 30 June 2021 had been EUR 43,504. During the financial year ended 30 June 2022, payments for consultancy fees of EUR 33,968 (2021: Nil) were made to JRB Consulting Ltd, a related party of Ms Josephine Bush in respect of a Board-mandated review of the Company's Target Operating Model and ESG reporting.

During the financial year ended 30 June 2021, payments for corporate advisory services outside of Australia of A\$45,000 (2020: A\$73,185) were made to Viaticus Capital, a related party of Mr Rezos. Viaticus Capital also received fees of A\$49,256 (2020: A\$18,000) for capital raising fees associated with a placement undertaken in the financial year ended 30 June 2021. The corporate advisory services agreement with Viaticus Capital entered into in 2018 was amended by mutual agreement during the reporting period to exclude any capital raising, M&A or related services. Payments for consulting fees of A\$43,044 (2020: A\$0) were made to Alto Group Inc., a related party of Ms Annie Liu. The outstanding balance to Alto Group Inc. at 30 June 2021 was A\$17,493 (2020: A\$0). In addition, payments for engineering services of EUR 736,609 were made to GeoT (now: VESS), a related party of Dr Horst Kreuter, member of the Board of Directors of the Company between December 2019 and March 2021.

During the financial year ended 30 June 2020, payments for corporate advisory services outside of Australia of A\$73,185 were made to Viaticus Capital, a related party of Mr Rezos. Viaticus Capital also received fees of A\$18,000 for capital raising fees associated with a placement undertaken in June 2020. There was A\$33,000 trade payable/accrual balance at 30 June 2020. In addition, payments for engineering services of EUR 77,035 were made to GeoT (now: VESS), a related party of Dr Horst Kreuter.

16. RECENT DEVELOPMENTS AND OUTLOOK

16.1 Recent developments

In the period after 31 December 2022, the Company focused on the preparations for the Private Placement and Admission to Trading, as well as on its further business operations including, in particular, the implementation of Vulcan Group's Zero Carbon Lithium™ Project.

Noteworthy developments in connection with Vulcan Group's business operations since 31 December 2022 include the following:

In January 2023, the acquisition by the Company through Vulcan Energie, the Company's direct subsidiary in Germany, of Comeback to insource drilling personnel capabilities (see section "9.1.2.4 *Comeback Personaldienstleistungen GmbH*"). In the same month, Vulcan Group also obtained its first publicly available ESG risk report from Sustainalytics with an overall ESG risk score of 16.8 (see "9.8.3.2 *Vulcan Group's CO2 Footprint, Sustainability-Related Certifications and ESG Rating*"). In January 2023, the Company signed a phased project agreement with Stellantis, aimed at developing, building, and operating geothermal renewable energy assets to help decarbonise the energy supply for Stellantis' operations in Rüsselsheim, Germany, by providing renewable heat.

In February 2023, Vulcan Group completed the DFS for Phase One, as more fully described in section "9.1.3.2 *Definitive Feasibility Study for Phase One (February 2023)*", and announced to the market an update of its resources and reserves.

In March 2023, Vulcan Group purchased from an individual seller a piece of land in the proximity of the Insheim Plant to serve as Vulcan Group's first drilling location. The purchase agreement was consummated on 17 April 2023. Vulcan Group expects to purchase further pieces of land to be used as production and re-injection well sites going forward. In its meeting on 28 March 2023, the Board of Directors resolved, among other things, to increase the fees for the non-executive directors of the Company by approx. 22% as from April 2023, within the boundaries of the Constitution and the approvals of the Company's shareholders.

In April 2023, the Company signed a term sheet, subject to definitive agreements, regarding a proposed strategic partnership with Nobian, which envisages the establishment of a joint venture in respect of, and equity funding for, the CLP to be constructed as part of the Zero Carbon Lithium™ Project (see section "9.1.3.4 *Funding and SPVs*"). Moreover, regarding debt financing, Vulcan Group has received non-binding in-principle support for financing of Phase One from several ECAs. In particular, Bpifrance, a French public investment bank funded by the French government with an ECA division, has confirmed the eligibility of the project *Garantie des Projets Stratégiques (Guarantee of Strategic Projects)* program, based on the value of Vulcan's lithium offtake agreements with automakers Stellantis and Renault and its strategic importance to the French Automotive industry; SACE, Italy's government-funded ECA, has confirmed the project's eligibility to its export credit program based on the expected presence of an Italian contractor amongst the construction contractors; and Export Development Canada, the Canadian ECA, has confirmed its interest in participating through direct lending in the financing of Phase One, based on the expected presence of Canadian contractors and the project's purchase of Canadian goods and services. Vulcan Group expects feedback from further government-funded ECAs regarding the eligibility of the project for ECA-backed financing in the coming months (see section "6.2.7 *Vulcan Group's financing arrangements*").

Noteworthy developments in connection with Vulcan Group's financial performance since 31 December 2022 include the following:

On 28 April 2023, the Company published unaudited quarterly cash flow information for the three-month period ended 31 March 2023 in accordance with ASX requirements. In the three-month period ended 31 March 2023, the Company's net cash used in operating activities was EUR 4.2 million, its net cash used in investing activities was EUR 16.8 million and its net cash used in financing activities was EUR 0.1 million. The net effect, together with negative 1.0 million foreign exchange movement in cash held resulted in a decrease of EUR 22.1 million in cash and cash equivalents, with cash and cash equivalents as at 31 March 2023 being EUR 112.0 million. Cash outlays in this period were principally attributable to additional operation costs and investments in relation to the development of the Zero Carbon Lithium™ Project, with the Company deploying a portion of its cash position toward certain initial Phase One capital expenditure items, such as site preparation for production,/re-injection well sites as well as construction expenses in relation to the Company's

LEOP and central lithium electrolysis optimisation plant as they approach mechanical completion, maintaining project momentum while it continues to advance its broader Phase One financing plans.

Apart from this, there have been neither significant changes to Vulcan Group's financial performance nor to Vulcan Group's financial position between 31 December 2022 and the date of this Prospectus.

16.2 Outlook

Vulcan Group believes it is well positioned to continue its path to execute on the development of the Zero Carbon Lithium™ Project. Vulcan Group currently aims to implement the Zero Carbon Lithium™ Project for a production start separated into two phases, with start dates at year-end 2025 and 2026/27, respectively. Vulcan Group is current targeting commencement of commercial production from Phase One at year-end 2025 and from Phase Two in 2026/27.

For the current financial year 2023 Vulcan Group plans a significant cash spend to develop its project in line with the target as it intends to move into the execution stage of Phase One of its Zero Carbon Lithium™ Project by: (i) commencing operation of the sorption and electrolysis optimisation plants and producing first tonnes of LHM, (ii) commencing drilling to increase brine production from Phase One areas, (iii) obtaining relevant permits in line with the development timeline, (iv) working with financial advisors to progress financing (equity, debt, public grants) for the construction of Vulcan Group's projects, (v) building and delivering a project execution model and (vi) advancing a definitive feasibility study for Phase Two (see section "9.1.3 Vulcan Group's Mission to implement the Zero Carbon Lithium™ Project"). Further, Vulcan Group intends to continue to advance the envisaged implementation of the Zero Carbon Lithium™ Project by concluding agreements with third parties for the practical implementation of the project and for the sale of battery grade LHM. Vulcan Group plans to use the proceeds from the Private Placement, together with existing cash, to progress Vulcan Group's integrated renewable energy and lithium project execution strategy, which includes the following: (i) ordering of long-lead items for construction of Phase One lithium plant (including an ion exchange system, eluate and desalination reverse osmosis, direct lithium sorption package and an evaporator and crystalliser system); (ii) ordering of long-lead items for Phase One geothermal plant; (iii) other Phase One project execution capital expenditure (including for drilling of initial new production/re-injection wells in Phase One area near current production wells to increase current brine flow, acquisition of land for LEP and brine production sites, VULSORB™ in-house lithium extraction sorbent co-investment for local commercial production onshoring supply chain in Europe, away from China/Russia and engineering costs associated with Phase One execution); (iv) Phase Two project development (including acquisition of 3D seismic data); and (v) general working capital, overhead and corporate costs (including working capital required to support on-the-ground execution and transaction costs associated with the Private Placement).

Vulcan Group is currently aiming at commencing commercial delivery under its lithium offtake agreements with LG Energy and Umicore in 2026 and with Renault, Stellantis and Volkswagen in 2027. Following commencement, Vulcan Group intends on expanding its commercial production in line with the expected growth in the European BEV market. Vulcan Group believes it is well positioned to continue its growth path following commencement of commercial production due to market trends in sectors such as E-Mobility and renewable energy.

For the current financial year 2023 Vulcan Group plans to substantially increase its capital expenditure which will have an effect on the cash position of Vulcan Group. Vulcan Group is targeting to fund approximately 65% of the Phase One capital expenditure requirements through debt financing and to fund the balance through equity funding (including at the project level). Increase in operational expenditure will largely follow the planned increase in headcount to ensure the start of the execution of Phase One of its Zero Carbon Lithium™ Project. Moreover, Vulcan Group is in the process of finalising its funding plan for Phase One based on the DFS for Phase One and is targeting completion of the debt and equity financing process for Phase One in the first quarter of 2024.

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18.1 Financial Statements 2022 (short financial year ended 31 December 2022)

18.1.1 Consolidated Statement of Profit or Loss and Other Comprehensive Income

For the short financial year ended 31 December 2022

	Note	6-months 31 Dec 2022 €'000	12-months 30 June 2022 €'000
Revenue from continuing operations	4	3,622	3,799
Other income	5	213	317
Finance income	6	615	350
Gain on deconsolidation		-	1,975
Loss from equity accounted investments	25	(249)	(495)
Other own work capitalised	5	3,489	3,696
Raw materials and purchased services		(3,119)	(2,512)
Finance cost	6	(177)	(155)
Administrative expenses	7	(2,127)	(3,790)
Compliance and regulatory expenses		(304)	(729)
Consulting and legal fees	7	(1,362)	(4,099)
Depreciation and amortisation expenses	7	(2,299)	(2,629)
Employee benefit expenses	7	(8,097)	(7,793)
Investor relations expenses		(231)	(615)
Impairment expenses		-	(36)
Loss on disposal of financial assets		-	(745)
Occupancy costs		(1,265)	(498)
Share-based payments expense	32	(711)	(3,637)
Other expenses		(1,446)	(1,175)
Foreign currency (loss)/gain		(105)	285
Loss before income tax expense		(13,553)	(18,486)
Income tax benefit/(expense)	8	103	(365)
Loss after income tax for the period		(13,450)	(18,851)
Other comprehensive income			
<i>Items that may be reclassified subsequently to profit or loss</i>			
Exchange differences on translation of foreign operations		(1,648)	6,990
Total comprehensive loss for the period (net of tax)		(15,098)	(11,861)
Total comprehensive loss for the period attributable to the owners of Vulcan Energy Resources Limited		(15,098)	(11,861)
Loss per share for the year attributable to the members Vulcan Energy Resources Limited:		€	€
Basic loss per share	9	(0.09)	(0.15)
Diluted loss per share	9	(0.09)	(0.15)

The Consolidated Statement of Comprehensive Income should be read in conjunction with the notes to the financial statements.

18.1.2 Consolidated Statement of Financial Position

As at 31 December 2022

	Note	6-months 31 Dec 2022 €'000	12-months 30 June 2022 €'000
Assets			
Current assets			
Cash and cash equivalents	10	134,107	175,416
Trade and other receivables	11	6,316	4,030
Contract assets	12	42	79
Inventories	13	155	138
Total current assets		140,620	179,663
Non-current assets			
Investments accounted for using equity method	25	974	1,214
Exploration and evaluation expenditure	14	30,135	20,440
Property, plant and equipment	15	70,280	51,490
Right-of-use	16	3,377	2,990
Intangible assets	17	3,068	3,633
Deferred tax assets	18	1,681	1,710
Total non-current assets		109,515	81,477
Total Assets		250,135	261,140
Liabilities			
Current liabilities			
Trade and other payables	19	9,418	8,354
Lease liabilities	16	646	439
Income tax liabilities	8(d)	91	332
Deferred income	20	132	-
Provisions	21	752	608
Total Current liabilities		11,039	9,733
Non-current liabilities			
Lease liabilities	16	2,670	2,566
Provisions	21	110	55
Deferred income	20	1,453	-
Deferred tax liabilities	22	1,702	1,463
Total non-current liabilities		5,935	4,084
Total Liabilities		16,974	13,817
Net Assets		233,161	247,323
Equity			
Share capital	23	259,158	258,933
Reserves	24	15,875	16,812
Accumulated losses	37	(41,872)	(28,422)
Total Equity		233,161	247,323

The Consolidated Statement of Financial Position should be read in conjunction with the notes to the financial statements.

18.1.3 Consolidated Statement of Changes in Equity

For the short financial year ended 31 December 2022

Consolidated	Issued Capital €'000	Reserves €'000	Foreign Currency Reserve €'000	Accumulated Losses €'000	Total €'000
At 1 July 2022	258,933	8,995	7,817	(28,422)	247,323
Loss for the period	-	-	-	(13,450)	(13,450)
Other comprehensive loss	-	-	(1,648)	-	(1,648)
Total comprehensive loss for the period after tax	-	-	(1,648)	(13,450)	(15,098)
Transactions with owners in their capacity as owners:					
Issue of share capital	225	-	-	-	225
Share issue costs	-	-	-	-	-
Share-based payments	-	711	-	-	711
Balance at 31 December 2022	259,158	9,706	6,169	(41,872)	233,161

Consolidated	Issued Capital €'000	Reserves €'000	Foreign Currency Reserve €'000	Accumulated Losses €'000	Total €'000
At 1 July 2021	85,272	4,995	827	(9,571)	81,523
Loss for the period	-	-	-	(18,851)	(18,851)
Other comprehensive income	-	-	6,990	-	6,990
Total comprehensive loss for the period after tax	-	-	6,990	(18,851)	(11,861)
Transactions with owners in their capacity as owners:					
Issue of share capital	178,040	-	-	-	178,040
Share issue costs	(4,379)	-	-	-	(4,379)
Share-based payments	-	4,000	-	-	4,000
Balance at 30 June 2022	258,933	8,995	7,817	(28,422)	247,323

The Consolidated Statement of Changes in Equity should be read in conjunction with the notes to the financial statements.

18.1.4 Consolidated Statement of Cash Flows

For the short financial year ended 31 December 2022

	6-months 31 Dec 2022 €'000	12-months 30 June 2022 €'000
Cash flows from operating activities		
Receipts from customers	3,496	3,799
Payments to suppliers and employees	(12,941)	(15,400)
Interest received	468	228
Other income	1,798	317
Interest paid	(239)	(291)
Net cash used in operating activities	10 (7,418)	(11,347)
Cash flows from investing activities		
Payments for exploration and evaluation expenditure	(10,429)	(9,384)
Payment for plant and equipment	(20,094)	(22,793)
Payment to acquire subsidiary	-	(32,685)
Cash acquired upon acquisition of subsidiary	-	1,230
Payments to acquire financial assets	(1,245)	(30,008)
Proceeds from disposal of financial assets	-	29,282
Net cash used in investing activities	(31,768)	(64,358)
Cash flows from financing activities		
Proceeds from issue of shares	-	176,208
Share issue costs	-	(4,378)
Lease repayments	(462)	(185)
Repayment of loan to Associate	-	409
Net cash used in/from financing activities	(462)	172,054
Net increase/(decrease) in cash and cash equivalents	(39,648)	96,349
Cash and cash equivalents at beginning of the period/year	175,416	72,494
Effect of exchange rate fluctuations	(1,661)	6,573
Cash and cash equivalents at end of the period/year	134,107	175,416

The Consolidated Statement of Cash Flows should be read in conjunction with the notes to the financial statements.

18.1.5 Notes to the Consolidated Financial Statements

NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The principal accounting policies adopted in the preparation of the financial statements are set out below. These policies have been consistently applied to all the years presented, unless otherwise stated.

(a) Reporting Entity

Vulcan Energy Resources Limited (referred to as "Vulcan" or the "Company") is a company domiciled in Australia. The address of the Company's registered office and principal place of business is Level 11, Brookfield Place, 125 St Georges Terrace, Perth WA 6000. The consolidated financial statements of the Company as at and for the period ended 31 December 2022 comprise the Company and its subsidiaries (together referred to as the "consolidated entity" or the "Group"). The principal activity of the Group is geothermal energy and lithium exploration and production.

(b) Basis of Preparation

Statement of compliance

The consolidated financial statements are general purpose financial statements which have been prepared in accordance with Australian Accounting Standards and Interpretations issued by the Australian Accounting Standards Board ("AASB") and the Corporations Act 2001. The consolidated financial statements comply with International Financial Reporting Standards ("IFRS") adopted by the International Accounting Standards Board ("IASB"). Vulcan Energy Resources Limited is a for-profit entity for the purpose of preparing the financial statements.

The annual report was authorised for issue by the Board of Directors on 22 March 2023.

Comparatives

The consolidated entity's current accounting period is the 6-months ended 31 December 2022, and the comparative is 12-month period due to the consolidated entity changing its accounting year end to a 31 December balance date.

Functional and presentation currency

Items included in the financial statements of each of the consolidated entities are measured using the currency of the primary economic environment in which the entity operates ("functional currency"). The consolidated financial statements are presented in Euro, which is Vulcan Energy Resources Limited's presentation currency.

Basis of measurement

The consolidated financial statements have been prepared on a going concern basis in accordance with the historical cost convention, unless otherwise stated.

Parent entity information

In accordance with the Corporations Act 2001, these financial statements present the results of the consolidated entity only. Supplementary information about the parent entity is disclosed in Note 38.

Rounding of amounts

The company is of a kind referred to in Corporations Instrument 2016/191, issued by the Australian Securities and Investments Commission, relating to 'rounding-off'. Amounts in this report have been rounded off in accordance with that Corporations Instrument to the nearest thousand Euro, unless otherwise stated.

New or amended Accounting Standards and Interpretations adopted

The consolidated entity has adopted all of the new or amended Accounting Standards and Interpretations issued by the Australian Accounting Standards Board ('AASB') that are mandatory for the current reporting period.

Any new or amended Accounting Standards or Interpretations that are not yet mandatory have not been early adopted.

Current and non-current classification

Assets and liabilities are presented in the statement of financial position based on current and non-current classification.

An asset is classified as current when: it is either expected to be realised or intended to be sold or consumed in the consolidated entity's normal operating cycle; it is held primarily for the purpose of trading; it is expected to be realised within 12 months after the reporting period; or the asset is cash or cash equivalent unless restricted from being exchanged or used to settle a liability for at least 12 months after the reporting period. All other assets are classified as non-current.

A liability is classified as current when: it is either expected to be settled in the consolidated entity's normal operating cycle; it is held primarily for the purpose of trading; it is due to be settled within 12 months after the reporting period; or there is no unconditional right to defer the settlement of the liability for at least 12 months after the reporting period. All other liabilities are classified as non-current.

Deferred tax assets and liabilities are always classified as non-current.

New standards and interpretations not yet mandatory or early adopted

Australian Accounting Standards and Interpretations relevant to the Group that have recently been issued or amended but are not yet mandatory, have not been adopted by the Group for the annual reporting period ended 31 December 2022. The Group has not yet assessed the impact of these new or amended Accounting Standards and Interpretations.

The Group has not yet assessed the impact of these new or amended Accounting Standards and Interpretations but does not expect it to have a significant impact on the Group's results.

Significant Judgements and Estimates

The preparation of financial statements requires the use of certain critical accounting estimates. It also requires management to exercise its judgement in the process of applying the consolidated entity's accounting policies. The areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the financial statements are disclosed in Note 2.

(c) Principles of Consolidation

Subsidiaries

The consolidated financial statements incorporate the assets and liabilities of all subsidiaries of Vulcan Energy Resources Limited ('Company' or 'parent entity') as at 31 December 2022 and the results of all subsidiaries for the 6 month period then ended.

Subsidiaries are all entities (including special purpose entities) over which the consolidated entity has the power to govern the financial and operating policies, generally accompanying a shareholding of more than one-half of the voting rights. The existence and effect of potential voting rights that are currently exercisable or convertible are considered when assessing whether the consolidated entity controls another entity.

Subsidiaries are fully consolidated from the date on which control is transferred to the consolidated entity. They are de-consolidated from the date that control ceases.

Intercompany transactions, balances and unrealised gains on transactions between consolidated entity companies are eliminated. Unrealised losses are also eliminated unless the transaction provides evidence of the impairment of the asset transferred. Accounting policies of subsidiaries have been changed where necessary to ensure consistency with the policies adopted by the consolidated entity.

The acquisition method of accounting is used to account for business combinations by the consolidated entity. A change in ownership interest, without the loss of control, is accounted for as an equity transaction, where the difference between the consideration transferred and the book value of the share of the non-controlling interest acquired is recognised directly in equity attributable to the parent.

Non-controlling interests in the results and equity of subsidiaries are shown separately in the consolidated statement of comprehensive income, statement of changes in equity and statement of financial position respectively.

Where the consolidated entity loses control over the subsidiary, it derecognises the assets including goodwill, liabilities and non-controlling interest in the subsidiary together with any cumulative transaction differences recognised in equity. The consolidated entity recognises the fair value of the consideration received and the fair value of any investment retained together with any gain or loss on profit or loss.

(d) **Foreign Currency Transactions**

Transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at period end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in profit or loss.

(e) **Entity Functional Currency Different From Group Presentational Currency**

The assets and liabilities of entities with functional currency different from group presentational currency are translated into Euro using the exchange rates at the reporting date. The revenues and expenses of functional currency different from group presentational currency are translated into Euro using the average exchange rates, which approximate the rates at the dates of the transactions, for the period. All resulting foreign exchange differences are recognised in other comprehensive income through the foreign currency reserve in equity.

NOTE 2 CRITICAL ACCOUNTING ESTIMATES, JUDGEMENTS AND ASSUMPTIONS

The preparation of the financial statements requires management to make judgements, estimates and assumptions that affect the reported amounts in the financial statements. Management continually evaluates its judgements and estimates in relation to assets, liabilities, contingent liabilities, revenue and expenses.

Management bases its judgements, estimates and assumptions on historical experience and on other various factors, including expectations of future events, management believes to be reasonable under the circumstances. The resulting accounting judgements and estimates will seldom equal the related actual results. The judgements, estimates and assumptions in these financial statements that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial period are disclosed below.

Exploration and evaluation expenditure

Exploration and evaluation costs have been capitalised on the basis that the consolidated entity will commence commercial production in the future, from which time the costs will be amortised in proportion to the depletion of the mineral resources. Key judgements are applied in considering costs to be capitalised which includes determining expenditures directly related to these activities and allocating overheads between those that are expensed and capitalised. In addition, costs are only capitalised that are expected to be recovered either through successful development or sale of the relevant mining interest. Factors that could impact the future commercial production at the mine include the level of reserves and resources, future technology changes, which could impact the cost of mining, future legal changes and changes in commodity prices. To the extent that capitalised costs are determined not to be recoverable in the future, they will be written off in the period in which this determination is made.

Share-based payments

The Group measures the cost of equity settled transactions with Directors, employees and consultants, where applicable, by reference to the fair value of equity instruments at the date at which they are granted. The fair value is determined using an appropriate valuation model taking into account the terms and conditions upon which the instruments were granted. The accounting estimates and assumptions relating to equity-settled share-based payments would have no impact on the carrying amounts of assets and liabilities within the next annual reporting period but may impact profit or loss and equity.

Estimation of useful lives of assets

The consolidated entity determines the estimated useful lives and related depreciation and amortisation charges for its plant and equipment. The useful lives could change significantly as a result of technical innovations or some other event. The depreciation and amortisation charge will increase where the useful lives are less than previously estimated lives, or technically obsolete or non-strategic assets that have been abandoned or sold will be written off or written down.

Goodwill and other indefinite life intangible assets

The consolidated entity tests annually, or more frequently if events or changes in circumstances indicate impairment, whether goodwill and other indefinite life intangible assets have suffered any impairment, in accordance with the accounting policy stated in note 1. The recoverable amounts of cash-generating units have been determined based on value-in-use calculations. These calculations require the use of assumptions, including estimated discount rates based on the current cost of capital and growth rates of the estimated future cash flows. Refer to note 16 for further information.

Impairment of non-financial assets other than goodwill and other indefinite life intangible assets

The consolidated entity assesses impairment of non-financial assets other than goodwill and other indefinite life intangible assets at each reporting date by evaluating conditions specific to the consolidated entity and to the particular asset that may lead to impairment. If an impairment trigger exists, the recoverable amount of the asset is determined. This involves fair value less costs of disposal or value-in-use calculations, which incorporate a number of key estimates and assumptions.

Income tax

The consolidated entity is subject to income taxes in the jurisdictions in which it operates. Significant judgement is required in determining the provision for income tax. There are many transactions and calculations undertaken during the ordinary course of business for which the ultimate tax determination is uncertain. The consolidated entity recognises liabilities for anticipated tax audit issues based on the consolidated entity's current understanding of the tax law. Where the final tax outcome of these matters is different from the carrying amounts, such differences will impact the current and deferred tax provisions in the period in which such determination is made.

Recovery of deferred tax assets

Deferred tax assets are recognised for deductible temporary differences only if the consolidated entity considers it is probable that future taxable amounts will be available to utilise those temporary differences and losses.

Lease term

The lease term is a significant component in the measurement of both the right-of-use asset and lease liability. Judgement is exercised in determining whether there is reasonable certainty that an option to extend the lease or purchase the underlying asset will be exercised, or an option to terminate the lease will not be exercised, when ascertaining the periods to be included in the lease term. In determining the lease term, all facts and circumstances that create an economical incentive to exercise an extension option, or not to exercise a termination option, are considered at the lease commencement date. Factors considered may include the importance of the asset to the consolidated entity's operations; comparison of terms and conditions to prevailing market rates; incurrence of significant penalties; existence of significant leasehold improvements; and the costs and disruption to replace the asset. The consolidated entity reassesses whether it is reasonably certain to exercise an extension option, or not exercise a termination option, if there is a significant event or significant change in circumstances.

Incremental borrowing rate

Where the interest rate implicit in a lease cannot be readily determined, an incremental borrowing rate is estimated to discount future lease payments to measure the present value of the lease liability at the lease commencement date. Such a rate is based on what the consolidated entity estimates it would have to pay a third party to borrow the funds necessary to obtain an asset of a similar value to the right-of-use asset, with similar terms, security and economic environment.

NOTE 3 SEGMENT INFORMATION**Accounting Policy****Segment Reporting**

Operating segments are reported in a manner consistent with the internal reporting provided to the chief operating decision maker. The chief operating decision maker, who is responsible for allocating resources and assessing performance of the operating segments, has been identified as the Board. Management has determined that based on the report reviewed by the Board and used to make strategic decisions, that the consolidated entity has three reportable segments.

Identification of reportable operating segments

The consolidated entity is organised into three operating segments based on geographical location: Germany, Other European (comprised of France, Norway and Italy) and Australia. These operating segments are based on the internal reports that are reviewed and used by the Board of Directors (who are identified as the Chief Operating Decision Makers (CODM)) in assessing performance and in determining the allocation of resources. There is no aggregation of operating segments.

The CODM reviews EBITDA (earnings before interest, tax, depreciation and amortisation). The accounting policies adopted for internal reporting to the CODM are consistent with those adopted in the financial statements.

The information reported to the CODM is on a monthly basis.

Types of products and services

Germany – the supply of geothermal energy, exploration relating to the Zero Carbon Lithium Project™ and engineering services

France, Norway and Italy – exploration relating to battery minerals and geothermal lithium.

Australia – administration and Definitive Feasibility Study ("DFS") ongoing costs.

Intersegment transactions

Intersegment transactions were made at market rates. Engineering services have been provided within the German segment. All intersegment receivables and payables, including the profit margin, are eliminated on consolidation

Major customers

During the period ended 31 December 2022, approximately €3.1m (30 June 2022: €3.0m) of the consolidated entity's external revenue was derived from sales to Pfalzwerke.

For the 6 months ended 31 December 2022

Segment performance	Germany	Other European	Administration Australia	Total
31/12/2022	€'000	€'000	€'000	€'000
Revenue				
Sales to external customers	3,622	-	-	3,622
Intersegment sales - Other own work capitalised	3,489	-	-	3,489
Other income	213	-	-	213
Finance income	155	-	460	615
Loss from equity accounted investment	-	-	(249)	(249)
Total segment revenue	7,479	-	211	7,690

-

EBITDA	(6,941)	-	(4,751)	(11,692)
Depreciation and amortisation	(2,285)	-	(14)	(2,299)
Finance expense	(62)	-	(115)	(177)
Finance income	155	-	460	615
Loss before income tax expense	(9,133)	-	(4,420)	(13,553)
Income tax expense	103	-	-	103
Loss after income tax expense	(9,030)	-	(4,420)	(13,450)
Material items include:				
Employee benefit expense	(7,334)	-	(763)	(8,097)
Share based payments expense	-	-	(711)	(711)

For the 6 months ended 31 December 2022 (CONT.)

	Germany	Other European	Administration Australia	Total
Assets				
Segment assets	164,779	195	425,784	590,758
Intersegment eliminations	-	-	-	(340,623)
Total assets	-	-	-	250,135
Total assets include:				
Investments accounted for using equity method	-	-	974	974
Exploration and evaluation expenditure additions	4,463	32	5,675	10,170
Capital additions	20,304	-	-	20,304
Liabilities				
Segment liabilities	21,881	103	176,578	198,562
Intersegment eliminations	-	-	-	(181,588)
Total Liabilities	-	-	-	16,974

For the year ended 30 June 2022

Segment performance	Germany	Other European	Australia	Total
30/06/2022	€'000	€'000	€'000	€'000
<hr/>				
Revenue				
Sales to external customers	3,799	-	-	3,799
Intersegment sales – Other own work capitalised	3,696	-	-	3,696
Other income	317	-	-	317
Finance income	199	-	151	350
Gain on deconsolidation	-	-	1,975	1,975
Loss from equity accounted investment	-	-	(495)	(495)
Total segment revenue	8,011	-	1,631	9,642
EBITDA	(7,192)	-	(8,860)	(16,052)
Depreciation and amortisation	(2,629)	-	-	(2,629)
Finance expense	(33)	-	(122)	(155)
Finance income	199	-	151	350
Loss before income tax expense	(9,655)	-	(8,831)	(18,486)
Income tax expense	(365)	-	-	(365)
Loss after income tax expense	(10,020)	-	(8,831)	(18,851)
Material items include:				
Employee benefit expense	(6,784)	-	(1,009)	(7,793)
Share based payments expense	-	-	(3,637)	(3,637)
	Germany	Other European	Administration Australia	Total
Assets				
Segment assets	115,874	160	263,218	379,252
Intersegment eliminations	-	-	-	(118,112)
Total assets	-	-	-	261,140
Total assets include:				
Investments accounted for using equity method	-	-	1,214	1,214
Exploration and evaluation expenditure additions	3,656	33	7,735	11,424
Capital additions	24,149	-	-	24,149

	Germany	Other European	Administration Australia	Total
Liabilities				
Segment liabilities	16,796	160	3,527	20,483
Intersegment eliminations	-	-	-	(6,666)
Total Liabilities	-	-	-	<u>13,817</u>

NOTE 4 REVENUE

	6-months 31 Dec 2022 €'000	12-months 30 June 2022 €'000
<i>Revenue from contract with customers</i>		
Sale of goods	3,128	2,977
Rendering of services	494	822
	<u>3,622</u>	<u>3,799</u>
Revenue from continuing operations	<u>3,622</u>	<u>3,799</u>

	Electricity sales		Engineering sales		Total	
	6-months	12 months	6-months	12-months	6-months	12-months
	31 Dec 2022	30 June 2022	31 Dec 2022	30 June 2022	31 Dec 2022	30 June 2022
	€'000	€'000	€'000	€'000	€'000	€'000
Timing of revenue recognition						
Goods transferred at a point in time	3,128	2,977	-	-	3,128	2,977
Services transferred over time	-	-	494	822	494	822
	<u>3,128</u>	<u>2,977</u>	<u>494</u>	<u>822</u>	<u>3,622</u>	<u>3,799</u>

All revenues are derived from Germany.

Accounting Policy

The consolidated entity recognises revenue as follows:

Revenue from contracts with customers

Revenue is recognised at an amount that reflects the consideration to which the consolidated entity is expected to be entitled in exchange for transferring goods or services to a customer. For each contract with a customer, the consolidated entity: identifies the contract with a customer; identifies the performance obligations in the contract; determines the transaction price which takes into account estimates of variable consideration and the time value of money; allocates the transaction price to the separate performance obligation on the basis of the relative stand-alone selling price of each distinct good or service to be delivered ; and recognises revenue when or as each performance obligation is satisfied in a manner that depicts the transfer to the customer of the goods and services promised.

Variable consideration within the transaction price, if any, reflects concessions provided to the customer such as discounts, rebates and refunds, any potential bonuses receivable from the customer and any other contingent events. Such estimates are determined using either the 'expected value' or 'most likely amount' method. The measurement of variable consideration is subject to a constraining principle whereby revenue will only be recognised to the extent that it is highly probable that a significant reversal in the amount of cumulative revenue recognised will not occur. The measurement constraint continues until the uncertainty associated with the variable consideration is subsequently resolved. Amounts received that are subject to the constraining principle are recognised as a refund liability.

Sale of goods

Revenue from the sale of goods is recognised at the point in time when the customer obtains control of the goods, which is generally at the time of delivery.

Rendering of services

Revenue from a contract to provide services is recognised over time as the services are rendered based on either a fixed price or an hourly rate.

NOTE 5 OTHER INCOME

	6-months 31 Dec 2022 €'000	12-months 30 June 2022 €'000
Government grants	151	317
Other income	37	-
Reversal of provision for expected credit losses	25	-
	<u>213</u>	<u>317</u>
	6-months 31 Dec 2022 €'000	12-months 30 June 2022 €'000
Other own work capitalised	3,489	3,696
	<u>3,489</u>	<u>3,696</u>

Accounting Policy**Other revenue**

Other revenue is recognised when it is received or when the right to receive payment is established.

Other own work capitalised

Vulcan Energy Engineering GmbH VEE, Vulcan Energy Subsurface Solutions GmbH provide services to Vulcan Energie Ressourcen GmbH, a wholly owned subsidiary of Vulcan Energy Resources Limited which have been capitalised to exploration and evaluation expenditure and property, plant and equipment. These services are disclosed in the statement of profit or loss and other comprehensive income as other own work capitalised. The expenses incurred by Vulcan Energy Engineering GmbH and Vulcan Energy Subsurface Solutions GmbH to provide these services are disclosed in the statement of profit or loss and other comprehensive income as employee benefit expenses. Other own work capitalised also includes the capitalisation of Vercana staff costs relating to the refurbishment of electric drill rigs. Other own work capitalised does not relate to any external revenue or any profit margin charge to intercompany transactions.

NOTE 6 FINANCE INCOME/(COST)

Finance Income

	6-months 31 Dec 2022 €'000	12-months 30 June 2022 €'000
Interest income	615	350
	<u>615</u>	<u>350</u>

Accounting Policy*Interest*

Interest revenue is recognised as interest accrues.

NOTE 6 FINANCE INCOME/(COST) (CONT.)

Finance cost

	6-months 31 Dec 2022 €'000	12-months 30 June 2022 €'000
Interest expense- cash at bank and deposits	(115)	(122)
Interest expense- lease liabilities	(62)	(33)
	<u>(177)</u>	<u>(155)</u>

Accounting Policy

Finance costs

Finance costs attributable to qualifying assets are capitalised as part of the asset. All other finance costs are expensed in the period in which they are incurred.

NOTE 7 EXPENSES

	6-months 31 Dec 2022 €'000	12-months 30 June 2022 €'000
(a) Administrative expenses		
Accounting, audit and company secretarial fees	89	311
Travel expenses	362	372
General expenses	1,676	3,107
	<u>2,127</u>	<u>3,790</u>
(b) Consultancy and legal expenses		
Corporate advisory fees	88	286
Consulting fees	816	1,573
Legal fees	458	2,240
	<u>1,362</u>	<u>4,099</u>
(c) Employee benefit expense		
Wages and salaries	6,514	6,640
Other benefits	1,583	1,153
	<u>8,097</u>	<u>7,793</u>
(d) Depreciation and amortisation expenses		
Software	21	10
Property, plant and Equipment	1,284	1,897
Land and Buildings	44	43
Right of use assets	385	200
Intangible assets	565	479
	<u>2,299</u>	<u>2,629</u>

NOTE 8 INCOME TAX

	6-months 31 Dec 2022 €'000	12-months 30 June 2022 €'000
(a) The components of tax expense/(benefit) comprise:		
Current tax	(369)	462
Deferred tax	266	(97)
Income tax expense reported in the of profit or loss and other comprehensive income	(103)	365
(b) The prima facie tax on loss from ordinary activities before income tax is reconciled to the income tax as follows:		
Loss before income tax expense	(13,553)	(18,486)
Prima facie tax benefit on loss before income tax at 30% (30 June 2022: 30%)	(4,066)	(5,546)
Tax effect of amounts that are not deductible/taxable in calculating taxable income		
Non-deductible expense	323	682
Tax losses and temporary differences not brought to account	2,394	3,688
Foreign corporate rate differential	1,246	1,541
Income tax (benefit)/expense	(103)	365
(c) Deferred tax assets/(liabilities) not brought to accounts are:		
Accruals	104	136
Prepayments	74	(107)
Other	1,837	2,308
Tax losses	5,122	2,461
Total deferred tax balances not brought to account	7,137	4,798

(d) As at 31 December 2022, the consolidated entity has income tax payable of €91,000 (30 June 2022: €332,000).

Except for the deferred tax assets (note 17) and deferred tax liabilities (note 20) recognised in the subsidiary, Natürlich Insheim GmbH, potential deferred tax assets attributable to tax losses and other temporary differences have not been brought to account at 31 December 2022 because the directors do not believe it is appropriate to regard realisation of the deferred tax assets as probable at this point in time. These benefits will only be obtained if:

- the consolidated entity derives future assessable income of a nature and of an amount sufficient to enable the benefit from the deductions for the expenditure to be realised; and
- no changes in tax legislation adversely affect the consolidated entity in realising the benefit from the deductions for the expenditure.

Accounting Policy

The income tax expense (revenue) for the year comprises current income tax expense (income) and deferred tax expense (income).

Current Tax

Current income tax expense charged to the profit or loss is the tax payable on taxable income calculated using applicable income tax rates enacted, or substantially enacted, as at the end of the reporting period. Current tax liabilities (assets) are therefore measured at the amounts expected to be paid to (recovered from) the relevant taxation authority.

Deferred Tax

Deferred tax expense reflects movements in deferred tax asset and deferred tax liability balances during the year as well as unused tax losses.

Current and deferred income tax expense (income) is charged or credited directly to equity instead of the profit or loss when the tax relates to items that are credited or charged directly to equity.

Deferred tax assets and liabilities are ascertained based on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the financial statements. Deferred tax assets also result where amounts have been fully expensed but future tax deductions are available. No deferred income tax will be recognised from the initial recognition of an asset or liability, excluding a business combination, where there is no effect on accounting or taxable profit or loss.

Deferred tax assets and liabilities are calculated at the tax rates that are expected to apply to the period when the asset is realised or the liability is settled, based on tax rates enacted or substantively enacted at the end of the reporting period. Their measurement also reflects the manner in which management expects to recover or settle the carrying amount of the related asset or liability.

Deferred tax assets relating to temporary differences and unused tax losses are recognised only to the extent that it is probable that future taxable profit will be available against which the benefits of the deferred tax asset can be utilised.

Where temporary differences exist in relation to investments in subsidiaries, branches, associates, and joint ventures, deferred tax assets and liabilities are not recognised where the timing of the reversal of the temporary difference can be controlled and it is not probable that the reversal will occur in the foreseeable future.

Current tax assets and liabilities are offset where a legally enforceable right of set-off exists and it is intended that net settlement or simultaneous realisation and settlement of the respective asset and liability will occur. Deferred tax assets and liabilities are offset where a legally enforceable right of set-off exists, the deferred tax assets and liabilities relate to income taxes levied by the same taxation authority on either the same taxable entity or different taxable entities where it is intended that net settlement or simultaneous realisation and settlement of the respective asset and liability will occur in future periods in which significant amounts of deferred tax assets or liabilities are expected to be recovered or settled.

NOTE 9 LOSS PER SHARE

	6-months 31 Dec 2022	12-months 30 June 2022
	€'000	€'000
Net loss for the year €'000	(13,450)	(18,851)
Weighted average number of ordinary shares for basic and diluted loss per share	143,332,764	124,671,203
Basic and diluted loss per share (Euro)	(0.09)	(0.15)

Accounting Policy

Basic Loss Per Share

Basic loss per share is determined by dividing net profit or loss after income tax attributable to members of the Company, excluding any costs of servicing equity other than ordinary shares, by the weighted average number of ordinary shares outstanding during the financial year, adjusted for bonus elements in ordinary shares issued during the year.

Diluted Loss Per Share

Diluted loss per share adjusts the figures used in the determination of basic earnings per share to take into account the after-income tax effect of interest and other financing costs associated with dilutive potential ordinary shares and the weighted average number of shares assumed to have been issued for no consideration in relation to dilutive potential ordinary shares.

NOTE 10 CASH AND CASH EQUIVALENTS

	6-months 31 Dec 2022 €'000	12-months 30 June 2022 €'000
Cash at bank and in hand	12,515	150,378
Short-term deposits	121,592	25,038
	<u>134,107</u>	<u>175,416</u>

Reconciliation of net loss after tax to net cash flows from operations

	6-months 31 Dec 2022 €'000	12-months 30 June 2022 €'000
Loss for the financial period/year	(13,450)	(18,851)
Share based payment expense	711	3,637
Impairment expenses	-	36
Depreciation and amortisation expenses	2,299	2,629
Share issued in exchange for services	225	478
Gain on deconsolidation	-	(1,975)
Loss from equity accounted investments	249	495
Foreign exchange differences	394	105
Changes in assets		
Trade and other receivables	(1,041)	(697)
Trade and other payables	3,339	2,249
Movement in provisions	(144)	547
Net cash used in operating activities	(7,418)	(11,347)

Accounting Policy

Cash and cash equivalents

Cash at bank earns interest at floating rates based on daily deposit rates. Short-term deposits are made in varying periods between one day and three months, depending on the immediate cash requirements of the Group and earn interest at the respective short-term deposit rates.

NOTE 11 TRADE AND OTHER RECEIVABLES

	31 Dec 2022 €'000	30 June 2022 €'000
Trade receivables	1,296	655
Allowance for expected credit losses	(34)	(43)
Prepayments	1,033	331
Other receivables	2,776	2,967
Other - bank guarantees	1,245	120
	<u>6,316</u>	<u>4,030</u>

	Expected credit loss rate		Carrying amount		Allowance for ECL	
	31 Dec 2022	30 June 2022	31 Dec 2022	30 June 2022	31 Dec 2022	30 June 2022
Consolidated	%	%	€'000	€'000	€'000	€'000
not overdue	0%	0%	1,228	569	-	-
overdue	50%	50%	68	86	34	43
			<u>1,296</u>	<u>655</u>	<u>34</u>	<u>43</u>

Allowance for expected credit loss

Trade and other receivables are non-interesting bearing and are generally on terms of 30 days. A provision for €35,000 (30 June 2022: €43,000) has been recorded to cover expected credit loss.

Accounting Policy

Trade and other receivables

Trade and other receivables include amounts due from customers for goods sold and services performed in the ordinary course of business. Trade and other receivables are initially recognised at fair value and subsequently measured at amortised cost using effective interest method less any allowance for expected credit loss. Receivables expected to be collected within 12 months of the end of the reporting period are classified as current assets.

Goods and Services Tax ('GST')

Revenues, expenses and assets are recognised net of the amount of GST, except where the amount of GST incurred is not recoverable from the Australian Taxation Office. In these circumstances, the GST is recognised as part of the cost of acquisition of the asset or part of the expense.

Receivables and payables are stated inclusive of the amount of GST receivable or payable. The net amount of GST recoverable from, or payable to, the taxation authority is included as a current asset or liability in the Consolidated statement of financial position.

Commitments and contingencies are disclosed net of the amount of GST recoverable from, or payable to, the tax authority. Cash flows are presented in the statement of cash flows on a gross basis, except for the GST on investing and financial activities, which are disclosed as operating cash flows.

Value Added Tax ("VAT")

Revenues expenses and assets are recognised net of VAT, except where the amount of VAT incurred is not recoverable from the German tax authority. In these circumstances the VAT is recognised as part of the cost of acquisition or parts of the expense. Receivables and payables are stated inclusive of the amount of VAT receivable or payable. The net amount of VAT recoverable from, or payable to, the taxation authority is included as a current asset or liability in the Consolidated statement of financial position. Cash flows are presented in the statement of cash flows on a gross basis, except for the VAT on investing and financial activities, which are disclosed as operating cash flows.

Investments and other financial assets

Investments and other financial assets are initially measured at fair value. Transaction costs are included as part of the initial measurement, except for financial assets at fair value through profit or loss. Such assets are subsequently measured at either amortised cost or fair value depending on their classification. Classification is determined based on both the business model within which such assets are held and the contractual cash flow characteristics of the financial asset unless an accounting mismatch is being avoided.

Financial assets are derecognised when the rights to receive cash flows have expired or have been transferred and the consolidated entity has transferred substantially all the risks and rewards of ownership. When there is no reasonable expectation of recovering part or all of a financial asset its carrying value is written off.

Financial assets at fair value through profit or loss

Financial assets not measured at amortised cost or at fair value through other comprehensive income are classified as financial assets at fair value through profit or loss. Typically, such financial assets will be either: (i) held for trading, where they are acquired for the purpose of selling in the short-term with an intention of making a profit, or a derivative; or (ii) designated as such upon initial recognition where permitted. Fair value movements are recognised in profit or loss.

Financial assets at fair value through other comprehensive income

Financial assets at fair value through other comprehensive income include equity investments which the consolidated entity intends to hold for the foreseeable future and has irrevocably elected to classify them as such upon initial recognition.

Impairment of financial assets

The consolidated entity recognises a loss allowance for expected credit losses on financial assets which are either measured at amortised cost or fair value through other comprehensive income. The measurement of the loss allowance depends upon the consolidated entity's assessment at the end of each reporting period as to whether the financial instrument's credit risk has increased significantly since initial recognition, based on reasonable and supportable information that is available, without undue cost or effort to obtain.

Where there has not been a significant increase in exposure to credit risk since initial recognition, a 12-month expected credit loss allowance is estimated. This represents a portion of the asset's lifetime expected credit losses that is attributable to a default event that is possible within the next 12 months. Where a financial asset has become credit impaired or where it is determined that credit risk has increased significantly, the loss allowance is based on the asset's lifetime expected credit losses. The amount of expected credit loss recognised is measured on the basis of the probability weighted present value of anticipated cash shortfalls over the life of the instrument discounted at the original effective interest rate.

NOTE 12 CONTRACT ASSETS

	6-months 31 Dec 2022	12-months 30 June 2022
	€'000	€'000
Contract assets	<u>42</u>	<u>79</u>
	<u>42</u>	<u>79</u>

Reconciliation of the written down values at the beginning and end of the current and previous financial year are set out below

	6-months 31 Dec 2022	12-months 30 June 2022
	€'000	€'000
Opening balance	79	-
Transfer from inventory	(37)	79
Closing balance	<u>42</u>	<u>79</u>

Accounting policy

Contract assets

Contract assets are recognised when the consolidated entity has transferred goods and services to the customer but where the consolidated entity is yet to establish an unconditional right to consideration. Contract assets are treated as financial assets for impairment purposes.

NOTE 13 INVENTORIES

	6-months 31 Dec 2022	12-months 30 June 2022
	€'000	€'000
Spare parts	155	138
	155	138

Accounting policy

Inventories

Raw materials, work in progress and finished goods are stated at the lower of cost and net realisable value on a "first in first out" basis. Cost comprises of direct materials and delivery costs, direct labour, import duties and other taxes, an appropriate proportion of variable and fixed overhead expenditure based on normal operating capacity, and, where applicable transfers from cash flow hedging reserves in equity. Costs of purchased inventory are determined after deducting rebates and discounts received or receivable.

NOTE 14 EXPLORATION AND EVALUATION EXPENDITURE

	6-months 31 Dec 2022	12-months 30 June 2022
	€'000	€'000
Carrying amount of exploration and evaluation expenditure	30,135	20,440
At the beginning of the period/year	20,440	8,722
Exploration expenditure incurred	10,400	11,273
Performance shares issued upon acquisition of GGH	-	363
Deconsolidation of Kuniko Ltd	-	(335)
Foreign exchange (Loss)/Gain	(705)	417
At the end of the period/year	30,135	20,440

Accounting Policy

Exploration and evaluation expenditure

Acquisition, exploration, and evaluation costs associated with mining tenements are accumulated in respect of each identifiable area of interest. These costs are only carried forward to the extent that the rights of tenure to that area of interest are current and that the costs are expected to be recouped through the successful commercial development or sale of the area or where activities in the area have not yet reached a stage that permits reasonable assessment of the existence of economically recoverable reserves.

Costs in relation to an abandoned area are written off in full against profit in the period in which the decision to abandon the area is made.

Each area of interest is also reviewed annually, and acquisition costs written off to the extent that they will not be recoverable in the future.

NOTE 15 PLANT AND EQUIPMENT

	31 Dec 2022 €'000	30 June 2022 €'000
Software	383	267
Plant & Equipment	27,411	26,859
Land & Buildings	1,536	1,580
Assets under Construction	40,950	22,784
	70,280	51,490

Movement in carrying amounts of plant and equipment for year ended 31 December 2022

	Software €'000	Plant and equipment €'000	Asset under construction €'000	Land and Building €'000	Total €'000
Cost					
At 1 July 2022	280	28,817	22,784	1,623	53,504
Additions	137	2,001	18,166	-	20,304
Disposals	-	(195)	-	-	(195)
At 31 December 2022	417	30,623	40,950	1,623	73,613
Accumulated Depreciation					
At 1 July 2022	(13)	(1,958)	-	(43)	(2,014)
Depreciation for the period	(21)	(1,284)	-	(44)	(1,349)
Depreciation eliminated on disposal	-	30	-	-	30
	(34)	(3,212)	-	(87)	(3,333)
Carrying amount					
At 1 July 2022	267	26,859	22,784	1,580	51,490
At 31 December 2022	383	27,411	40,950	1,536	70,280

Movement in carrying amounts of plant and equipment for year ended 30 June 2022

	Software	Plant and equipment	Asset under construction	Land and Building	Total
	€'000	€'000	€'000	€'000	€'000
Cost					
At 1 July 2021	112	417	470	-	999
Acquired in business combinations	34	26,508	191	1,623	28,356
Additions	134	1,892	22,123	-	24,149
At 30 June 2022	280	28,817	22,784	1,623	53,504
Accumulated Depreciation					
At 1 July 2021	(3)	(61)	-	-	(64)
Depreciation for the year	(10)	(1,897)	-	(43)	(1,950)
		-	-	-	-
	(13)	(1,958)	-	(43)	(2,014)
Carrying amount					
At 1 July 2021	109	356	470	-	935
At 30 June 2022	267	26,859	22,784	1,580	51,490

Accounting Policy

Property, plant and equipment

Property, plant and equipment is stated at historical cost less accumulated depreciation and impairment. Historical cost includes expenditure that is directly attributable to the acquisition of the items

Once assets are available for use, depreciation is calculated using the straight-line method to allocate asset costs over their estimated useful lives, as follows:

Software	3 -5 years
Plant & Equipment	2-15 years
Land & Buildings	20 years

The assets' residual values and useful lives are reviewed, and adjusted if appropriate, at each balance date. An asset's carrying amount is written down immediately to its recoverable amount if the asset's carrying amount is greater than its estimated recoverable amount.

NOTE 16 LEASE LIABILITIES & RIGHT OF USE

Right-of-use asset	Buildings	Vehicles	Hardware and Software	Technical Equipment	Land	Total
	€'000	€'000	€'000	€'000	€'000	€'000
Cost						
At 1 July 2022	2,908	261	21	-	-	3,190
Additions	492	251	-	14	23	780
At 31 December 2022	3,400	512	21	14	23	3,970
Accumulated Depreciation						
At 1 July 2022	(107)	(83)	(10)	-	-	(200)
Depreciation for the period	(307)	(65)	(5)	(3)	(5)	(385)
Foreign Exchange Gain/(Loss)	(8)	-	-	-	-	(8)
	(422)	(148)	(15)	(3)	(5)	(593)
Carrying amount						
At 1 July 2022	2,801	178	11	-	-	2,990
At 31 December 2022	2,978	364	6	11	18	3,377

Right-of-use asset	Buildings	Vehicles	Hardware and Software	Total
	€'000	€'000	€'000	€'000
Cost				
At 1 July 2021	334	38	-	372
Additions	2,908	261	21	3,190
Leases relinquished	(334)	(38)	-	(372)
At 30 June 2022	2,908	261	21	3,190
Accumulated Depreciation				
At 1 July 2021	10	4	-	14
Depreciation for the year	(107)	(83)	(10)	(200)
Eliminated upon relinquishment	(10)	(4)	-	(14)
	(107)	(83)	(10)	(200)
Carrying amount				
At 1 July 2021	324	34	-	358
At 30 June 2022	2,801	178	11	2,990

	Buildings	Vehicles	Hardware and Software	Technical Equipment	Land	Total
	€'000	€'000	€'000	€'000	€'000	€'000
Lease Liabilities						
At 1 July 2022	2,804	190	11	-	-	3,005
New lease liabilities entered during the period	492	248	-	13	23	776
Add: Interest	56	6	-	-	-	62
Less: Payment	(329)	(181)	(5)	(4)	(5)	(524)

Foreign Exchange Gain/ (Loss)	(3)	-	-	-	-	(3)
Closing Balance	3,020	263	6	9	18	3,316

Represented by:

Current lease liabilities	506	115	6	8	11	646
Non-current lease liabilities	2,512	150	-	1	7	2,670
	3,018	265	6	9	18	3,316

	Buildings €'000	Vehicles €'000	Hardware and Software €'000	Total €'000
Lease Liabilities				
At 1 July 2021	325	28	-	353
New lease liabilities entered during the period	2,908	262	21	3,191
Leases relinquished	(325)	(28)	-	(353)
Add: Interest	27	6	-	33
Less: Payment	(131)	(78)	(10)	(219)
Closing Balance	2,804	190	11	3,005

Represented by:

Current lease liabilities	326	104	9	439
Non-current lease liabilities	2,478	86	2	2,566
	2,804	190	11	3,005

Accounting Policy

Right-of-use assets:

A right-of-use asset is recognised at the commencement date of a lease. The right-of-use asset is measured at cost, which comprises the initial amount of the lease liability, adjusted for, as applicable, any lease payments made at or before the commencement date net of any lease incentives received, any initial direct costs incurred, and, except where included in the cost of inventories, an estimate of costs expected to be incurred for dismantling and removing the underlying asset, and restoring the site or asset.

Right-of-use assets are depreciated on a straight-line basis over the unexpired period of the lease or the estimated useful life of the asset, whichever is the shorter. Where the consolidated entity expects to obtain ownership of the leased asset at the end of the lease term, the depreciation is over its estimated useful life. Right-of use assets are subject to impairment or adjusted for any remeasurement of lease liabilities.

The consolidated entity has elected not to recognise a right-of-use asset and corresponding lease liability for short-term leases with terms of 12 months or less and leases of low-value assets. Lease payments on these assets are expensed to profit or loss as incurred.

Lease liabilities

A lease liability is recognised at the commencement date of a lease. The lease liability is initially recognised at the present value of the lease payments to be made over the term of the lease, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the consolidated entity's incremental borrowing rate. Lease payments comprise of fixed payments less any lease incentives receivable, variable lease payments that depend on an index or a rate, amounts expected to be paid under residual value guarantees, exercise price of a purchase option when the exercise of the option is reasonably certain to occur, and any anticipated termination penalties. The variable lease payments that do not depend on an index or a rate are expensed in the period in which they are incurred.

Lease liabilities are measured at amortised cost using the effective interest method. The carrying amounts are remeasured if there is a change in the following: future lease payments arising from a change in an index or a rate used; residual guarantee; lease term; certainty of a purchase option and termination penalties. When a lease liability is remeasured, an adjustment is made to the corresponding right-of use asset, or to profit or loss if the carrying amount of the right-of-use asset is fully written down.

The Group leases office space, a laboratory, vehicles and land through its German subsidiary Vulcan Energie Ressourcen GmbH as well as the subsidiaries of the German operating Company.

NOTE 17 INTANGIBLE ASSETS

	31 Dec 2022	30 June 2022
	€'000	€'000
Goodwill	1,076	1,076
Less: Impairment	(36)	(36)
	<u>1,040</u>	<u>1,040</u>
Customer contracts – at cost	1,526	1,526
Less: Accumulated amortisation	(904)	(386)
	<u>622</u>	<u>1,140</u>
Order backlog – at cost	46	46
Less: Accumulated amortisation	(46)	(46)
	<u>-</u>	<u>-</u>
Operating permit – at cost	1,500	1,500
Less: Accumulated amortisation	(94)	(47)
	<u>1,406</u>	<u>1,453</u>
Total Intangible Assets	<u>3,068</u>	<u>3,633</u>

Reconciliation of the written down values at the beginning and the end of the current and previous financial year are set out below:

	Customer Contracts €'000	Order backlog €'000	Operating Permit €'000	Goodwill €'000	TOTAL €'000
Balance at 1 July 2021	-	-	-	-	-
Acquired through business combinations	1,526	46	1,500	1,076	4,148
Less: amortisation	(386)	(46)	(47)	-	(479)
Less: Impairment	-	-	-	(36)	(36)
Balance at 30 June 2022	1,140	-	1,453	1,040	3,633
Less: amortisation	(518)	-	(47)	-	(565)
Balance at 31 December 2022	622	-	1,406	1,040	3,068

Impairment testing

Goodwill impairment test is conducted annually. The last goodwill impairment testing was performed on 30 June 2022. There are no indicators of impairment as at 31 December 2022.

Goodwill has been allocated to the following cash-generating units:

	€'000
Global Engineering & Consulting-Company GmbH (Gec-co) - renamed to Vulcan Energy Engineering GmbH	1,040
	<u>1,040</u>

The consolidated entity impaired the goodwill related to Insheim and GeoT as at 30 June 2022 amounted to €36,000.

The recoverable amount of the consolidated entity's goodwill has been determined by a value-in-use calculation using a discounted cash flow model, based on a 5 year projection period approved by management, together with terminal value.

The following key assumptions were used in the discounted cash flow model:

- 13.2% pre-tax discount rate
- 18% average per annum projected EBITDA

The discount rate of 13.2% pre-tax reflects management's estimate of the time value of money and Gec-co's weighted average cost of capital.

Sensitivity

As disclosed in note 2, the directors have made judgements and estimates in respect of impairment testing of goodwill. Should these judgements and estimates not occur the resulting goodwill carrying amount may decrease. The sensitivities are as follows:

- Pre-tax discount rate would be required to increase to 28.2% for goodwill to be impaired, with all other assumptions remaining constant.
- EBITDA would be required to decrease to 9% for goodwill to be impaired, with all other assumptions remaining constant.

Management believes that other reasonable changes in the key assumptions on which the recoverable amount of the engineering is based would not cause the cash-generating unit's carrying amount to exceed its recoverable amount.

If there are any negative changes in the key assumptions on which the recoverable amount of goodwill is based, this would result in further impairment charge for the engineering division's goodwill.

Accounting Policy

Goodwill and other indefinite life intangible assets

The consolidated entity tests annually, or more frequently if events or changes in circumstances indicate impairment, whether goodwill and other indefinite life intangible assets have suffered any impairment, in accordance with the accounting policy stated in note 1. The recoverable amounts of cash-generating units have been determined based on value-in-use calculations. These calculations require the use of assumptions, including estimated discount rates based on the current cost of capital and growth rates of the estimated future cash flows.

Intangible assets acquired as part of a business combination, other than goodwill, are initially measured at their fair value at the date of the acquisition. Intangible assets acquired separately are initially recognised at cost. Indefinite life intangible assets are not amortised and are subsequently measured at cost less any impairment. Finite life intangible assets are subsequently measured at cost less amortisation and any impairment. The gains or losses recognised in profit and loss arising from the derecognition of intangible assets are measured as the difference between the net disposal proceeds and the carrying amount of the intangible asset. The method and useful lives of finite life intangible assets are reviewed annually. Changes in the expected pattern of consumption or useful life are accounted for prospectively by changing the amortisation method or period.

Impairment of non-financial assets other than goodwill and other indefinite life intangible assets

The consolidated entity assesses impairment of non-financial assets other than goodwill and other indefinite life intangible assets at each reporting date by evaluating conditions specific to the consolidated entity and to the particular asset that may lead to impairment. If an impairment trigger exists, the recoverable amount of the asset is determined. This involves fair value less costs of disposal or value-in-use calculations, which incorporate a number of key estimates and assumptions.

Recoverable amount is the higher of an asset's fair value less costs of disposal and value-in-use. The value-in-use is the present value of the estimated future cash flows relating to the asset using a pre-tax discount rate specific to the asset or cash-generating unit to which the asset belongs. Assets that do not have independent cash flows are grouped together to form a cash-generating unit.

NOTE 18 DEFERRED TAX ASSETS

	31 Dec 2022	30 June 2022
	€'000	€'000
Deferred tax asset comprises temporary differences attributable to:		
Other	47	18
Property, plant and equipment	1,634	1,692
Deferred tax asset	1,681	1,710
<i>Movements:</i>		
Opening balance	1,710	-
Additions through business combinations	-	1,768
Charged to income statement	(29)	(58)
Closing balance	1,681	1,710

NOTE 19 TRADE AND OTHER PAYABLES

	31 Dec 2022	30 June 2022
	€'000	€'000
Trade payables ⁽ⁱ⁾	6,479	6,183
Accrued expenses	1,190	802
Other payables	1,466	866
VAT Payable	283	503
	9,418	8,354

(i) Trade payables are non-interest bearing and are normally settled on 30-day terms.

Due to the short-term nature of these payables, their carrying value is assumed to be the same as their fair value.

Accounting Policy**Trade and other payables**

Trade payables and other payables represent liabilities for goods and services provided to the Group prior to the end of the financial year which are unpaid. The amounts are unsecured and are usually paid within 30 days of recognition.

NOTE 20 DEFERRED INCOME

	31 Dec 2022	30 June 2022
	€'000	€'000
Current	132	-
Government grants	132	-
Non-current	1,453	-
Government grants	1,453	-

Accounting Policy

Government grants

Government grants are not recognised until there is a reasonable assurance that the Group will comply with the conditions attached to them and that the grants will be received.

The assistance from the European Union aims to support the Group in testing, development and optimisations in production of geothermal energy. Unfulfilled conditions relate to the spend requirements as part of the grant acquittal processes which will be validated by the European Union at the next reporting period, 31 December 2023 for the income showing as current deferred income, and in November 2024 for the remaining balance.

NOTE 21 PROVISIONS

Current:

	31 Dec 2022 €'000	30 June 2022 €'000
Annual leave provision	752	608
	752	608

Non-Current:

Other provisions	110	55
	110	55

Amounts not expected to be settled within the next 12 months

The current provision for employee benefits includes all unconditional entitlements where employees have completed the required period of service and also those where employees are entitled to pro-rata payments in certain circumstances. The entire amount is presented as current, since the consolidated entity does not have an unconditional right to defer settlement. However, based on past experience, the consolidated entity does not expect all employees to take the full amount of accrued leave or require payment within the next 12 months.

Accounting Policy

Provisions

Provisions are recognised when the consolidated entity has a present (legal or constructive) obligation as a result of a past event, it is probable the consolidated entity will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation. The amount recognised as a provision is the best estimate of the consideration required to settle the present obligation at the reporting date, taking into account the risks and uncertainties surrounding the obligation. If the time value of money is material, provisions are discounted using a current pre-tax rate specific to the liability. The increase in the provision resulting from the passage of time is recognised as a finance cost.

Employee benefits

Defined contribution superannuation expenses

Contributions to defined contribution superannuation plans are expensed in the period in which they are incurred.

Short-term employee benefits

Liabilities for wages and salaries, including non-monetary benefits, annual leave and long service leave expected to be settled wholly within 12 months of the reporting date are measured at the amounts expected to be paid when the liabilities are settled.

Other long-term employee benefits

The liability for annual leave and long service leave not expected to be settled within 12 months of the reporting date are measured at the present value of expected future payments to be made in respect of services provided by employees up to the reporting date using the projected unit credit method. Consideration is given to expected future wage and salary levels, experience of employee departures and periods of service. Expected future payments are discounted using market yields at the reporting date on corporate bonds with terms to maturity and currency that match, as closely as possible, the estimated future cash outflows.

NOTE 22 DEFERRED TAX LIABILITIES

	31 Dec 2022	30 June 2022
	€'000	€'000
Deferred tax liability comprises temporary differences attributable to:		
Other	6	2
Property, plant and equipment	1,696	1,461
Deferred tax liabilities	<u>1,702</u>	<u>1,463</u>
<i>Movements:</i>		
Opening balance	1,463	-
	-	1,618
Additions through business combinations		
Charged to income statement	<u>239</u>	<u>(155)</u>
Closing balance	<u>1,702</u>	<u>1,463</u>

NOTE 23 CONTRIBUTED EQUITY

	31 Dec 22		30 Jun 22	
	No'000	€'000	No.'000	€'000
Fully paid ordinary shares	143,435	259,158	143,094	258,933

Ordinary shares

Ordinary shares entitle the holder to participate in the dividends and the proceeds on winding up in proportion to the number of and amounts paid on the shares held.

At shareholders meetings, each ordinary share is entitled to one vote when a poll is called, otherwise each shareholder has one vote on a show of hands.

Share buy-back

There is no current on-market share buy-back.

	Date	Number	Issue Price €	€'000
<hr/>				
At 1 July 2022		143,094,049		258,933
Exercise of Class S performance rights	7/07/2022	12,897	-	-
Exercise of Class H performance rights	7/07/2022	80,909	-	-
Exercise of Class I performance rights	7/07/2022	89,091	-	-
Shares issued for services rendered	9/07/2022	58,355	3.86	225
Exercise of Class R performance rights	20/12/2022	100,000	-	-
At 31 December 2022		143,435,301	-	259,158
<hr/>				

NOTE 23 CONTRIBUTED EQUITY (CONT.)

	Date	Number	Issue Price €	€'000
At 1 July 2021		108,422,717		85,272
Shares issued as consideration for acquisition of Gec-co.	6/07/2021	325,000	5.04	1,637
Shares issued as consideration for acquisition of GGH	6/07/2021	11,396	5.04	57
Shares issued for services rendered	19/08/2021	32,251	7.84	253
Placement	22/09/2021	14,814,815	8.35	123,680
Share Purchase Plan	18/10/2021	228,434	8.65	1,975
Exercise of warrants	1/12/2021	521,304	-	-
Placement	17/12/2021	65,317	8.47	553
Exercise of performance shares	17/12/2021	4,400,000	-	-
Exercise of performance rights	17/12/2021	2,786,364	-	-
Shares issued for services rendered	8/02/2022	37,492	6.00	225
Shares issued to Stellantis	27/06/2022	11,448,959	4.34	49,660
Less capital raising costs				(4,379)
At 30 June 2022		143,094,049		258,933

Accounting Policy

Ordinary shares are classified as equity. Incremental costs directly attributable to the issue of new shares or options are shown in equity as a deduction, net of tax, from the proceeds. Incremental costs directly attributable to the issue of new shares or options for the acquisition of a business are not included in the cost of the acquisition as part of the purchase consideration.

If the entity reacquires its own equity instruments, for example, as a result of a share buy-back, those instruments are deducted from equity and the associated shares are cancelled. No gain or loss is recognised in the profit or loss and the consideration paid including any directly attributable incremental costs (net of income taxes) is recognised directly in equity.

NOTE 24 RESERVES

	31 Dec 2022 €'000	30 June 2022 €'000
Share-based payment reserve	9,706	8,995
Foreign currency translation reserve	6,169	7,817
Total	15,875	16,812

NOTE 24 RESERVES (CONT.)

	Number of Warrants	Number of Performance Shares	Number of Performance Rights	€'000
<u>Movement reconciliation</u>	-		-	
On issue at 1 July 2022	-	91,174	8,656,324	8,995
Issue of performance rights during the year	-	-	393,374	-
Exercise of Performance Rights during the year	-	-	(282,897)	-
Recognition of share - based payment expense for performance rights issued to Directors, staff & consultants (Note 32)	-	-	-	711
Performance rights cancelled	-	-	(24,000)	-
Performance rights lapsed			(360,000)	
On issue at 31 December 2022	-	91,174	8,382,801	9,706

NOTE 24 RESERVES (CONT.)

	Number of Warrants	Number of Performance Shares	Number of Performance Rights	€'000
<u>Movement reconciliation</u>				
On issue at 1 July 2021	512,447	4,400,000	11,238,688	4,995
Issue of performance rights during the year	-	-	204,000	-
Recognition of share - based payment expense for performance rights issued to Directors, staff & consultants (Note 32)	-	-	-	3,289
Performance shares issued upon purchase of GGH	-	91,174	-	363
Recognition of share - based payment expense for performance rights issued to Vendors on Acquisition (Note 32)	-	-	-	218
Issue of unlisted options during the year	-	-	-	-
Exercise of unlisted options during the year	-	-	-	-
Exercise of Performance rights during the year	-	-	(2,786,364)	-
Issue of warrants during the year	8,857	-	-	-
Warrants exercised during the year	(521,304)	-	-	-
Recognition of shared based payment expense for warrants	-	-	-	130
Exercise of Performance Shares during the year	-	(4,400,000)	-	-
On issue at 30 June 2022	-	91,174	8,656,324	8,995

NOTE 24 RESERVES (CONT.)

The share-based payment reserve is used to record the value of share-based payments provided to outside parties, and share-based remuneration provided to employees and directors.

Foreign Currency Translation Reserve

	31 Dec 2022 €'000	30 June 2022 €'000
Balance at the beginning of the period/year	7,817	827
Movement during the period/year	(1,648)	6,990
Balance at the end of the period/year	6,169	7,817

The foreign currency translation reserve is used to recognise exchange differences arising from the translation of the financial statements of foreign operations to Euro.

NOTE 25 INVESTMENT IN ASSOCIATE

The Company's interest in Kuniko Limited is recognised as an investment in associate accounted for using the equity method. Subsequent to the deconsolidation, the Company's share of Kuniko Limited's loss for the period was offset against the investment resulting in the amount recognised as investment in associate as follows:

	31 Dec 2022 €'000	30 June 2022 €'000
Opening carrying value	1,214	1,709
Share of loss - associate	(249)	(474)
Share of other comprehensive income/(loss) - associate	9	(21)
Investment in associate	974	1,214

NOTE 25 INVESTMENT IN ASSOCIATE (CONT.)

Interests in associates are accounted for using the equity method of accounting. Information relating to associates that are material to the consolidated entity are set out below:

Name	Principal place of business / Country of incorporation	Ownership interest	
		31 December 2022 %	30 June 2022 %
Kuniko Ltd	Australia	21.15%	21.15%

Kuniko Ltd		
	31 Dec 2022 €'000	30 June 2022 €'000
<i>Summarised statement of financial position</i>		
Current assets	4,921	6,985
Non-current assets	3,016	2,665
Total assets	7,937	9,650
Current liabilities	(241)	(678)
Non-current liabilities	-	-
Total liabilities	(241)	(678)
Net assets/(liabilities)	7,696	8,972
	6-months 31 Dec 2022 €'000	12-months 30 June 2022 €'000
<i>Summarised statement of profit or loss and other comprehensive income</i>		
Revenue	-	-
Expenses	(1,177)	(1,391)
Loss before income tax	(1,177)	(1,391)
Income tax expense	-	-
Loss after income tax	(1,177)	(1,391)
Other comprehensive loss	42	(115)
Total comprehensive loss	(1,135)	(1,506)

NOTE 25 INVESTMENT IN ASSOCIATE (CONT.)

Accounting policy

Associates

Associates are entities over which the consolidated entity has significant influence but not control or joint control. Investments in associates are accounted for using the equity method. Under the equity method, the share of the profits or losses of the associate is recognised in profit or loss and the share of the movements in equity is recognised in other comprehensive income. Investments in associates are carried in the statement of financial position at cost plus post-acquisition changes in the consolidated entity's share of net assets of the associate. Goodwill relating to the associate is included in the carrying amount of the investment and is neither amortised nor individually tested for impairment. Dividends received or receivable from associates reduce the carrying amount of the investment.

When the consolidated entity's share of losses in an associate equals or exceeds its interest in the associate, including any unsecured long-term receivables, the consolidated entity does not recognise further losses, unless it has incurred obligations or made payments on behalf of the associate.

The consolidated entity discontinues the use of the equity method upon the loss of significant influence over the associate and recognises any retained investment at its fair value. Any difference between the associate's carrying amount, fair value of the retained investment and proceeds from disposal is recognised in profit or loss.

NOTE 26 ACQUISITION OF SUBSIDIARY

No acquisitions occurred in the period ending 31 December 2022.

In the prior year, the following acquisitions occurred:

Global Geothermal Holding UG

On 2 July 2021 Vulcan Energie Ressourcen GmbH, a subsidiary of Vulcan Energy Resources Limited, acquired 100% of the shares in Global Geothermal Holding UG ('GGH') with an effective date on 2 July 2021 (closing-date). Dr Horst Kreuter, CEO of Vulcan Energie Ressourcen GmbH, and a related party of Vulcan Energy Resources Limited, and Mr Thorsten Weimann, Chief Operating Officer and a related party of Vulcan Energy Resources Limited were the sole shareholders of GGH.

With a share price at closing date of €5.04 (AUD7.90), the agreed purchase price for 11,396 ordinary shares amounted to €57,411.

Additionally, 91,174 performance shares with a fair value €363,307 have been recognised as deferred consideration, based on management's assessment of the probability of achieving the performance milestones. The performance shares were issued in equal number to Dr Horst Kreuter and Mr Thorsten Weimann. Milestones as follows:

The Performance Shares will convert into Shares upon achievement of any of the following in relation to any of the licenses held by GGH:

- (a) the Company (or any of its subsidiaries) obtaining a positive approval for geothermal brine production from the relevant governmental authority following a provisional environmental impact assessment;
- (b) the Company (or any of its subsidiaries) obtaining approval for the construction and operation of a main operating plant under Germany's Federal Mining Act (BBergG);
- (c) the Company (or any of its subsidiaries) obtaining the first approval for a special operating plan in accordance with BBergG;
- (d) the Company (or any of its subsidiaries) the first approval or pre-approval from the relevant governmental authority for the construction of a geothermal plant; or
- (e) the Company (or any of its subsidiaries) obtaining the first approval or pre-approval from the relevant governmental authority for the construction of a direct lithium extraction (lithium conveying) plant.

NOTE 26 ACQUISITION OF SUBSIDIARY (CONT.)

Purchase Consideration:	€
Shares issued	57,411
Performance shares issued (refer to note 13)	363,307
Net consideration	420,718

Net Assets Acquired:	€
Fair value of net liabilities acquired	(1,193)
Exploration and evaluation expenditure	421,911
Net assets acquired	420,718

Management has determined that the acquisitions do not meet the definition of a business within AASB 3 Business Combinations. The transactions have been accounted for as an asset acquisition.

Since GGH is an entity which holds exploration licences including Taro where the majority of the indicated resources is generated from, the acquisition of GGH is considered an asset acquisition rather than a business combination.

Accounting Policy*Asset Acquisition not constituting a Business*

When an asset acquisition does not constitute a business combination, the assets and liabilities are assigned a carrying amount based on their relative fair values in an asset purchase transaction and no deferred tax will arise in relation to the acquired assets and assumed liabilities as the initial recognition exemption for deferred tax under AASB 112 applies. No goodwill will arise on the acquisition and transaction costs of the acquisition will be included in the capitalised cost of the asset.

NOTE 27 INTERESTS IN SUBSIDIARIES

The consolidated financial statements incorporate assets, liabilities and results of the following wholly-owned subsidiaries in accordance with the accounting policy described in note 1

Entity	Location	Primary activity	Date of foundation or acquisition	Ownership Interest 31 December 2022 (%)	Ownership Interest 30 June 2022 (%)
Vulcan Energie Ressourcen GmbH	Karlsruhe	Operating entity	September 26, 2019	100	100
Vulcan Energy Europe Pty Limited	Perth	Operating entity	October 11, 2019	100	100
Global Geothermal Holding UG	Karlsruhe	Group holding	July 2, 2021	100	100
Vulcan Energy Subsurface Solutions GmbH	Karlsruhe	Operating entity	July 2, 2021	100	100
Vulcan Energy Engineering GmbH	Augsburg	Operating entity	July 2, 2021	100	100
Vulcan Geothermal GmbH	Karlsruhe	Group holding	July 09, 2021	100	100
VER GEO LIO GmbH	Karlsruhe	Group holding	July 12, 2021	100	100
Vercana GmbH	Karlsruhe	Operating entity	December 09, 2021	100	100
Natürlich Insheim GmbH	Karlsruhe (previously: Ludwigshafen)	Operating entity	December 31, 2021	100	100
Vulcan Energy Italy Pty Limited	Perth	Operating entity	July 5, 2021	100	100
Vulcan Energie France SAS	France	Operating entity	June 22, 2022	100	100

NOTE 28 BUSINESS COMBINATIONS

No business combinations occurred in the period ending 31 December 2022. In the prior year, the following business combinations occurred:

Natürlich Insheim GmbH (previously: Pfalzwerke Geofuture GmbH)

VER GEO LIO GmbH, an indirect subsidiary of Vulcan Energy Resources Limited, acquired 100% shares in Natürlich Insheim GmbH ('**Natürlich Insheim**'), in accordance with the Share Purchase Agreement, with an effective date on 31 December 2021 (closing-date).

The preliminary purchase price for the acquisition of Natürlich Insheim amounted to €32,684,814 and was paid in cash. The preliminary purchase price has been adjusted by €1,410,417 based on the purchase price adjustments stated in the Share Purchase Agreement. Therefore, the adjusted purchase price amounts to €31,274,397 and is now final.

The acquired business contributed revenues of €2,976,987 and a loss after tax of €105,243 to the consolidated entity for the period 1 January 2022 to 30 June 2022. If the acquisition occurred on 1 July 2021 the full year contributions would have been revenues of €5,953,974, a loss after tax of €210,486 and EBITDA of €1,352,836.

Natürlich Insheim owns and operates a geothermal power plant in Insheim, Germany.

The values identified in relation to the acquisition of Insheim are final as at 30 June 2022.

Details of the acquisition are as follows:

	€'000
Cash	922
Trade and other receivables	754
Inventory	138
Property, plant & equipment	28,313
Deferred tax asset	1,747
Trade and other payables	(894)
Other provisions	(50)
Fair value of net assets acquired	30,930
Goodwill	35
Operating permit	1,500
Intangibles acquired on acquisition	1,535
Deferred tax liabilities arising on acquisition	(1,191)
Acquisition-date fair value of total consideration	31,274

Representing:

	€'000
Cash paid	32,685
Loan repayment to Pfalzwerke Geofuture GmbH	(1,300)
Profit transfer adjustment	(111)
Total consideration	31,274

NOTE 28 BUSINESS COMBINATIONS (CONT.)

Gec-co Global Engineering & Consulting-Company GmbH

Vulcan Energie Ressourcen GmbH, a subsidiary of Vulcan Energy Resources Limited, acquired 100% of geothermal surface consultancy company, Global Engineering and Consulting - Company GmbH ('Gec-co'), in accordance with the Share Purchase Agreement, with an effective date on 2 July 2021 (closing-date). Mr Thorsten Weimann, Chief Operating Officer of Vulcan Energy Resources Limited is the sole shareholder of Gec-co.

325,000 fully paid ordinary shares of Vulcan Energy Resources Limited were issued, totalling to €1,627,720 based on a share price at closing date of €5.01 (AUD7.93).

This is an engineering business and operates in the renewables sector. The goodwill of €1.040m represents the expected synergies from merging this business with the other entities and reducing external consultancy costs. The acquired business contributed revenues (including other own works capitalised) of €2,979,154 for sale of services and loss after tax of €900,073 to the consolidated entity for the period from 2 July 2021 to 30 June 2022. As the acquisition occurred on 2 July 2022, the full year contribution is the same as above.

Additionally, a cash payment of €862,750 linked to project development milestones of the Vulcan Zero Carbon Lithium™ Project has been recognised as deferred consideration, based on management's assessment of the probability of achieving the milestones. Milestones as follows:

- (a) The first building permit for the construction of an ORC (geothermal) plant is granted;
- (b) The first building permit or approval pursuant to the German Federal Immission Control Act (BImSchG) for the construction of a DLE (lithium extraction) plant is granted.

The values identified in relation to the acquisition of Gec-co are final as at 30 June 2022.

Details of the acquisition are as follows:

	€'000
Cash	246
Trade and other receivables	557
Contract assets	192
Other assets	122
Trade and other payables	(372)
Loans and borrowings	(348)
Fair value of net assets acquired	397
Customer relationships	1,393
Order backlog	46
Goodwill	1,040
Intangibles acquired on acquisition	2,479
Deferred tax liabilities arising on acquisition	(386)
Acquisition-date fair value of total consideration	2,490

Representing:

	€'000
Shares issued	1,628
Deferred consideration	862
Total consideration	2,490

NOTE 28 BUSINESS COMBINATIONS (CONT.)

GeoThermal Engineering GmbH

Vulcan Energie Ressourcen GmbH, a subsidiary of Vulcan Energy Resources Limited, acquired 100% of the shares in GeoThermal Engineering GmbH ('GeoT') in accordance with the Share Purchase Agreement, with effective date on 2 July 2021 (closing-date). Dr Horst Kreuter, CEO of Vulcan Energie Ressourcen GmbH, and a related party of Vulcan Energy Resources Limited, was the sole shareholder of GeoT.

The acquisition costs for 100% of the shares in GeoT were payable in cash. The agreed purchase price was €1.

GeoT is an independent planning and consulting company for the development of deep geothermal projects worldwide. In cooperation with partners and investors, GeoT develops national and international projects in regions that offer favourable conditions for a sustainable heat and/or power production from geothermal energy. Furthermore, GeoT designs optimally adapted exploration programs for each project by individual composing of the different exploration methods.

The acquired business contributed revenues (including other own work capitalised) of €1,469,495 for sale of services and loss after tax of €263,250 to the consolidated entity for the period from 2 July 2021 to 30 June 2022. As the acquisition occurred on 2 July 2022, the full year contribution is the same as above.

The values identified in relation to the acquisition of GeoT are final as at 30 June 2022.

Details of the acquisition are as follows:

	€
Cash	62,150
Trade and other receivables	151,854
Other assets	134,223
Trade and other payables	(156,342)
Loans and borrowings	(285,330)
Fair value of net liabilities acquired	(93,445)
Customer relationships	133,316
Goodwill	1,298
Intangibles acquired on acquisition	134,614
Deferred tax liabilities arising on acquisition	(41,168)
Acquisition-date fair value of total consideration	1

Representing:

	€
Cash paid or payable to vendor	1
Total consideration	1

NOTE 28 BUSINESS COMBINATIONS (CONT.)

Accounting policy

Business combinations

The acquisition method of accounting is used to account for business combinations regardless of whether equity instruments or other assets are acquired.

The consideration transferred is the sum of the acquisition-date fair values of the assets transferred, equity instruments issued or liabilities incurred by the acquirer to former owners of the acquiree and the amount of any non-controlling interest in the acquiree. For each business combination, the non-controlling interest in the acquiree is measured at either fair value or at the proportionate share of the acquiree's identifiable net assets. All acquisition costs are expensed as incurred to profit or loss.

On the acquisition of a business, the consolidated entity assesses the financial assets acquired and liabilities assumed for appropriate classification and designation in accordance with the contractual terms, economic conditions, the consolidated entity's operating or accounting policies and other pertinent conditions in existence at the acquisition-date.

Where the business combination is achieved in stages, the consolidated entity remeasures its previously held equity interest in the acquiree at the acquisition-date fair value and the difference between the fair value and the previous carrying amount is recognised in profit or loss.

Contingent consideration to be transferred by the acquirer is recognised at the acquisition-date fair value. Subsequent changes in the fair value of the contingent consideration classified as an asset or liability is recognised in profit or loss. Contingent consideration classified as equity is not remeasured and its subsequent settlement is accounted for within equity.

The difference between the acquisition-date fair value of assets acquired, liabilities assumed and any non-controlling interest in the acquiree and the fair value of the consideration transferred and the fair value of any pre-existing investment in the acquiree is recognised as goodwill. If the consideration transferred and the pre-existing fair value is less than the fair value of the identifiable net assets acquired, being a bargain purchase to the acquirer, the difference is recognised as a gain directly in profit or loss by the acquirer on the acquisition-date, but only after a reassessment of the identification and measurement of the net assets acquired, the non-controlling interest in the acquiree, if any, the consideration transferred and the acquirer's previously held equity interest in the acquiree.

NOTE 29 FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES

The Group's activities expose it to a variety of financial risks: market risk (including foreign exchange risk and interest rate risk), credit risk, liquidity risk and price risk. The Group's overall risk management programme focuses on the unpredictability of the financial markets and seeks to minimise potential adverse effects on the financial performance of the Group. The Group uses different methods to measure and manage different types of risks to which it is exposed.

These include monitoring levels of exposure to interest rate and foreign exchange risk and assessments of market forecasts for interest rate and foreign exchange prices. Ageing analysis and monitoring of specific credit allowances are undertaken to manage credit risk. Liquidity risk is monitored through the development of future cash flow forecasts.

Risk management is carried out by Management and overseen by the Board of Directors with assistance from suitably qualified external advisors.

The main risks arising for the Group are foreign exchange risk, interest rate risk, credit risk and liquidity risk. The Board reviews and agrees policies for managing each of these risks and they are summarised below.

The carrying values of the Group's financial instruments are as follows:

	31 Dec 2022	30 June 2022
	€'000	€'000
Financial Assets		
Cash and cash equivalents	134,107	175,416
Trade and other receivables	6,316	4,030
	<u>140,423</u>	<u>179,446</u>
Financial Liabilities		
Trade and other payables	9,418	8,354
Lease liabilities	3,316	3,005
	<u>12,734</u>	<u>11,359</u>

(a) Market risk

(i.) Foreign exchange risk

The Group's exposure to foreign currency risk at the end of the reporting period, was as follows:

	31 Dec 22	30 Jun 22
	€'000	€'000
Trade payables	(1,312)	(1,430)
Cash and cash equivalent	35,358	87,421
	<u>34,046</u>	<u>85,991</u>

NOTE 29 FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES (CONT.)

The aggregate net foreign exchange gains/(losses) recognised in the P&L were:

	31 December 2022 €'000	30 June 2022 €'000
Net foreign exchange gains recognised in the P&L:	(105)	285

Sensitivity

As shown in the table above, the group is primarily exposed to changes in EUR/AUD exchange rates. The sensitivity of profit or loss to changes in the exchange rates is:

	Impact on post-tax profit 6 months 31 December 2022 €'000	12 months 30 June 2022 €'000
EUR/AUD exchange rate - increase 5% *	(1,773)	(4,390)
EUR/AUD exchange rate - decrease 5%*	1,773	4,390
EUR/USD exchange rate - increase 5%	(64)	(53)
EUR/USD exchange rate - decrease 5%	64	53

*Holding all other variables constant

(ii.) Interest rate risk

The Group is exposed to interest rate risk, which is the risk that a financial instrument's value will fluctuate as a result of changes in the market interest rates on interest bearing financial instruments. The Group's exposure to this risk relates primarily to the Group's cash and any cash on deposit. The Group does not use derivatives to mitigate these exposures. The Group manages its exposure to interest rate risk by holding certain amounts of cash in fixed and floating interest rate facilities. At the reporting date, the interest rate profile of the Group's interest-bearing financial instruments was:

	31 December 2022		30 June 2022	
	Weighted average interest rate	Balance €'000	Weighted average interest rate	Balance €'000
Cash and cash equivalents	1.53%	101,687	0.25%	103,558

Sensitivity

Within the analysis, consideration is given to potential renewals of existing positions and the mix of fixed and variable interest rates. The following sensitivity analysis is based on the interest rate risk exposures in existence at the reporting date. The 1% increase and 1% decrease in rates is based on reasonably expected possible changes over a financial year.

At 31 December 2022, if interest rates had moved, as illustrated in the table below, with all other variables held constant, losses and equity would have been affected as follows:

NOTE 29 FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES (CONT.)

	Profit higher/(lower) 31 December 2022 €	Profit higher/(lower) 30 June 2022 €
+ 1.0% (100 basis points)	1,016,867	1,035,576
- 1.0% (100 basis points)	(1,016,867)	(1,035,576)

(b) Credit risk

Credit risk arises from the financial assets of the Group, which comprise cash and cash equivalents, trade and other receivables and other financial assets. The Group's exposure to credit risk arises from potential default of the counterparty, with maximum exposure equal to the carrying amount of the financial assets.

The Group's policy is to trade only with recognised, creditworthy third parties. It is the Group's policy that all customers who wish to trade on credit terms will be subject to credit verification procedures.

In addition, receivable balances are monitored on an ongoing basis with the result that the Group's exposure to bad debts is not significant. There are no significant concentrations of credit risk within the Group except for cash and cash equivalents.

(c) Liquidity risk

Liquidity risk is the risk that the Group will not be able to meet its financial obligations as they fall due. The Group's approach to managing liquidity is to ensure, as far as possible, that it will always have sufficient liquidity to meet its liabilities when due, under both normal and stressed conditions, without incurring unacceptable losses or risking damage to its reputation.

The Group manages liquidity risk by maintaining adequate cash reserves from funds raised in the market and by continuously monitoring forecast and actual cash flows. The Group does not have any external borrowings.

The following are the contractual maturities of financial liabilities:

	1 year or less €'000	1-5 years €'000	> 5 years €'000	Total €'000
31 Dec 22				
Trade and other payables	9,418	-	-	9,418
Lease Liabilities	646	1,801	869	3,316
30 Jun 22				
Trade and other payables	8,354	-	-	8,354
Lease Liabilities	439	838	1,728	3,005

NOTE 29 FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES (CONT.)**(d) Price risk**

The Group is exposed to the commodity price risk, as its energy sales are predominantly subject to prevailing market prices. The contract with Pfalzwerke guarantees a minimum price of €0.25 per kWh. During the six months ending 31 December 2022 Vulcan sold 10,409 MWh at an average price of €0.32 per kWh.

At 50% of the upward movement in the price for Mwh, the Group's loss would decrease by €1.9m. At 100% upward price movement the loss would decrease by €3.7m.

(e) Capital risk management

The Group's objectives when managing capital are to:

- Safeguard their ability to continue as a going concern, so that it can continue to provide returns for shareholders and benefits for other stakeholders; and
- Maintain an optimal capital structure to reduce the cost of capital.

In order to maintain or adjust the capital structure, the Group may adjust the number of dividends paid to shareholders, return capital to shareholders, issue new shares or sell assets to reduce debt.

Given the stage of the Company's development there are no formal targets set for return on capital. The Company is not subject to externally imposed capital requirements. The net equity of the Company is equivalent to capital. Net capital is obtained through capital raisings on the Australian Securities Exchange ("ASX").

NOTE 30 CHANGES IN LIABILITIES ARISING FROM FINANCING ACTIVITIES

	Lease liabilities €'000	Total €'000
Balance at 1 July 2021	353	353
Net cash used in financing activities	(185)	(185)
Additions to leases	3,190	3,190
Other changes	(353)	(353)
Balance at 1 July 2022	3,005	3,005
Net cash used in financing activities	(462)	(462)
Additions to leases	776	776
Other changes	(3)	(3)
Balance at 31 December 2022	3,316	3,316

NOTE 31 NON-CASH INVESTING AND FINANCING ACTIVITIES

	6-months 31 Dec 2022 €'000	12-months 30 June 2022 €'000
Additions to the right of use assets	776	3,190
Performance shares issued for consideration of acquisition	-	363
Shares issued for consideration of acquisition	-	1,685
	776	5,238

NOTE 32 SHARE-BASED PAYMENTS

	6-months 31 Dec 2022 €'000	12-months 30 June 2022 €'000
Recognised share-based payment transactions		
Performance rights issued to Directors, staff and consultants (i)	153	520
Performance rights issued to Directors & staff in prior periods (ii)	558	2,769
Performance shares issued to Vendors of Acquisition	-	218
Performance shares issues as consideration for acquisition of subsidiary GGH	-	363
Shares issued for consideration of services (Note 23)	225	478
Warrants	-	130
	936	4,478
Represented by		
Shared-based payment expense	711	3,637
Investor relations expense	225	478
Capitalised exploration assets	-	363
	936	4,478

(i) Details of new performance rights issued during the period:

Under the Company's Incentive Award plan, the Company issued the following incentives:

- an annual deferred incentive (ADI), designed to reward creation of of exceptional short-term shareholder value as evidenced by the performance hurdles. Issued in three Tranches as Class AA
- a long-term incentive (LTI), deigned to reward creation of exceptional long-term shareholder value as evidenced by performance hurdles. Issued in seven tranches as Class AB

The incentives were issued on the following dates:

- on the 19th of September 52,000 ADIs and 102,000 LTIs were issued to the Executives.
- on the 13th of December 12,700 ADIs and 56,200 LTIs were issued to the Executives.
- On the 29th of November 26,000 ADI's and 116,000 LTI's were issued to the Managing Director.

NOTE 32 SHARE-BASED PAYMENTS (CONT.)

Details of the ADIs for Executives:

Item	Executive Rights - ADI					
	Tranche 1		Tranche 2		Tranche 3	
Grant date	19/09/2022	13/12/2022	19/09/2022	13/12/2022	19/09/2022	13/12/2022
Fair value of each right (EUR)	5.24	4.30	5.24	4.30	5.24	4.30
Commencement of performance period	1/07/2022	1/11/2022 & 14/11/2022	1/07/2022	1/11/2022 & 14/11/2022	1/07/2022	1/11/2022 & 14/11/2022
Performance measurement date	30/06/2022	30/06/2022	30/06/2022	30/06/2022	30/06/2022	30/06/2022
Vesting date	30/06/2024	30/06/2024	30/06/2024	30/06/2024	30/06/2024	30/06/2024
Expiry date	30/06/2026	30/06/2026	30/06/2026	30/06/2026	30/06/2026	30/06/2026
Volatility	n/a	n/a	n/a	n/a	n/a	n/a
Risk-free rate	n/a	n/a	n/a	n/a	n/a	n/a
Dividend yield	nil	nil	nil	nil	nil	nil
Number of Rights	15,600	3,810	15,600	3,810	20,800	5,080
Price at grant (EUR)	5.24	4.30	5.24	4.30	5.24	4.30
Valuation per Tranche (EUR)	81,744	16,383	81,744	16,383	108,992	21,844

Share based payment expense (EUR)	10,116	808	10,116	808	18,882	1,509
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Item	Managing Director's Rights - ADI		
	Tranche 1	Tranche 2	Tranche 3
Grant date	29/11/2022	29/11/2022	29/11/2022
Fair value of each right (EUR)	4.52	4.52	4.52
Commencement of performance period	1/07/2022	1/07/2022	1/07/2022
Performance measurement date	30/06/2023	30/06/2023	30/06/2023
Vesting date	30/06/2024	30/06/2024	30/06/2024
Expiry date	30/06/2026	30/06/2026	30/06/2026
Volatility	n/a	n/a	n/a
Risk-free rate	n/a	n/a	n/a
Dividend yield	nil	nil	nil
Number of Rights	7,800	7,800	10,400
Price at grant (EUR)	4.52	4.52	4.52
Valuation per Tranche (EUR)	35,228	35,228	46,971

Share based payment expense (EUR)	4,527	4,527	8,451
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NOTE 32 SHARE-BASED PAYMENTS (CONT.)

Details of ADI performance rights vesting conditions:

Tranche 1:

The Tranche 1 will vest subject to the obtaining sufficient funding in order to allow for completion of the first plant that will be able to produce lithium on a commercial scale and/or the first new commercial geothermal heating plant, in accordance with Vulcan's business plan (First Plant) by 30 June 2023.

Tranche 2:

The Tranche 2 will vest subject to the achievement of various individual and business KPIs. The STI targets reflect a balance of individual and organisational goals impacting overall STI. Individual goals in the assessment of the STI include items such as sustainability, cost performance, funding, approval of drilling permits, drilling activity, compliance and governance, growth and safety. Individual executive goals are all clearly defined and specifically measurable.

Tranche 3

The tranche 3 will vest subject to the achievement of the shared objectives as follows:

People:

- a) >80% retention rate for agreed critical roles at all levels of the organisation for FY 23 onwards; and
- b) increased employee satisfaction rate based on previous annual internal employee satisfaction survey.

Environment:

- a) obtain an ESG rating from a recognised third party ESG provider that is above 50%;
- b) obtain a carbon neutral emission certification from a recognised third-party issuer where the Group's carbon emissions footprint is measured and offset by supporting credible carbon offset projects and verified across all business units by 30 June 2023; and
- c) reporting of climate related impacts, risks and opportunities management by the Group according to the Taskforce for Climate-Related Financial Disclosures (TCFD) guidelines and/or report according to the Taskforce for Nature-Related Financial Disclosures (TNFD).

Social:

- a) all exploration/production licenses to be in good standing as at 30 June 2023; and
- b) release an announcement on the ASX that it has commenced drilling in the Upper Rhine Valley.

The above ADI performance rights are subject to continuous service until the vesting date.

NOTE 32 SHARE-BASED PAYMENTS (CONT.)

Details of the LTIs for Executives:

Item		Grant date	Fair value of each right (EUR)	Expiry date	Volatility	Risk-fee rate	Number of Rights	Price at grant (EUR)	Valuation per Tranche (EUR)	Share based payment expense (EUR)
Executive Rights	Tranche 1	19/09/2022	5.24	30/06/2027	n/a	n/a	30,600	5.24	160,344	9,921
		13/12/2022	4.30	30/06/2027	n/a	n/a	16,860	4.30	72,498	1,659
	Tranche 2	19/09/2022	5.24	30/06/2027	n/a	n/a	15,300	5.24	80,172	4,961
		13/12/2022	4.30	30/06/2027	n/a	n/a	8,430	4.30	36,249	829
	Tranche 3	19/09/2022	5.24	30/06/2027	n/a	n/a	10,200	5.24	53,448	3,307
		13/12/2022	4.30	30/06/2027	n/a	n/a	5,620	4.30	24,166	553
	Tranche 4	19/09/2022	5.24	30/06/2027	n/a	n/a	7,650	5.24	40,086	2,480
		13/12/2022	4.30	30/06/2027	n/a	n/a	4,215	4.30	18,125	415
	Tranche 5	19/09/2022	5.24	30/06/2027	n/a	n/a	7,650	5.24	40,086	2,480
		13/12/2022	4.30	30/06/2027	n/a	n/a	4,215	4.30	18,125	415
	ATSR Rights	19/09/2022	4.18	30/06/2027	75%	3.405%	10,200	5.24	42,636	5,267
		13/12/2022	3.24	30/06/2027	75%	3.115%	5,620	4.30	18,209	837
	RTSR Rights	19/09/2022	4.57	30/06/2027	75%	3.405%	20,400	5.24	93,228	11,518
		13/12/2022	3.50	30/06/2027	75%	3.115%	11,240	4.30	39,340	1,673

Item		Grant date	Fair value of each right (EUR)	Expiry date	Volatility	Risk-fee rate	Number of Rights	Price at grant (EUR)	Valuation per Tranche (EUR)	Share based payment expense (EUR)
MD Rights	Tranche 1	29/11/2022	4.52	30/06/2027	n/a	n/a	34,800	4.52	157,296	10,100
	Tranche 2	29/11/2022	4.52	30/06/2027	n/a	n/a	17,400	4.52	78,648	5,050
	Tranche 3	29/11/2022	4.52	30/06/2027	n/a	n/a	11,600	4.52	52,432	3,367
	Tranche 4	29/11/2022	4.52	30/06/2027	n/a	n/a	8,700	4.52	39,324	2,525
	Tranche 5	29/11/2022	4.52	30/06/2027	n/a	n/a	8,700	4.52	39,324	2,525
	ATSR Rights	29/11/2022	3.46	30/06/2027	75%	3.235%	11,600	4.52	40,136	5,164
	RTSR Rights	29/11/2022	3.69	30/06/2027	75%	3.235%	23,200	4.52	85,608	10,988

NOTE 32 SHARE-BASED PAYMENTS (CONT.)

Details of LTI performance rights vesting conditions:

Tranche 1:

The Tranche 1 Rights will vest subject to the achievement of the successful ramp up to nameplate capacity for Phase 1 energy and lithium chemicals production, and achievement of corresponding revenue.

Tranche 2:

The Tranche 2 Rights will vest subject to the achievement of obtaining a positive definitive feasibility study for Phase 2 energy and lithium chemicals production, and achievement of corresponding revenue.

Tranche 3:

The Tranche 3 Rights will vest subject to the achievement of obtaining project financing for completion of Phase 2 capital expenditure.

Tranche 4:

The Tranche 4 Rights will vest subject to the achievement of carbon neutral emission certification across all operations through each year in the four-year period commencing 30 June 2022.

Tranche 5:

The Tranche 5 Rights will vest subject to the achievement of lowest quartile absolute greenhouse gas (GHG) emissions.

ATSR Rights:

The number of RTSR Rights that vest is based on the TSR of Vulcan over the performance period, relative to the returns of the Peer Group. The RTSR Rights will vest according to the following schedule:

Company's TSR performance	Percentage of ATSR Rights eligible to vest
Company's TSR < 7.5%	Nil
7.5% < Company's TSR < 10%	50% to 75% on a pro-rata basis
10% < Company's TSR < 12.5%	75% to 100% on a pro-rata basis
Company's TSR > 12.5%	100%

RTSR Rights:

The number of RTSR Rights that vest is based on the TSR of Vulcan over the performance period, relative to the returns of the Peer Group. The RTSR Rights will vest according to the following schedule

Company's TSR performance relative to the Peer Group	Percentage of RTSR Rights eligible to vest
50th percentile	50%
Between 50th percentile and 75th percentile	Pro-rata
75th percentile	100%

NOTE 32 SHARE-BASED PAYMENTS (CONT.)

On the 29th of November the Company issued Performance rights to Non Executive Directors (NED Service Rights). Dr Günter Hilken and Mark Skelton each received 14,237 performance rights valued at EUR 67,746. Issued in three tranches as class AC

Performance rights vest as follows:

- 1/3 vesting 12 months from the date of 2022 AGM;
- 1/3 vesting 24 months from the date of 2022 AGM; and
- 1/3 vesting 36 months from the date of 2022 AGM.

Type	Grant date	Number of Rights	Vesting date	Total value of Rights (EUR)	Share based payment expense (EUR)
Tranche 1	29/11/2022	9,491	29/11/2023	45,164	4,060
Tranche 2	29/11/2022	9,491	29/11/2024	45,164	2,027
Tranche 3	29/11/2022	9,491	29/11/2025	45,164	1,352

NOTE 32 SHARE-BASED PAYMENTS (CONT.)

(ii) Details of performance rights issued in prior years:

Type	Fair value of each right (EUR)	Expected volatility	Grant date	Price at grant date (EUR)	Expiry date	Vesting hurdle (5-day VWAP)	Interest rate	Number of Rights	Total value of Rights (EUR)	Share based payment expense (EUR)
Class J	0.55	70%	10/09/2020	0.55	16/09/2023	1.84	0.26%	2,500,000	1,368,598	241,631
Class P	0.55 & 4.67 & 7.54	N/A	15/09/2020 & 29/06/2021 & 16/12/2021	0.55 & 4.67 & 7.54	1/12/2023	N/A	N/A	250,000 & 60,000 & 58,000	855,020	(441,746)
Class R	1.47	N/A	25/11/2020	1.47	27/11/2022	N/A	N/A	100,000	147,060	32,264
Class S	4.95	N/A	24/06/2021	4.95	30/06/2025	N/A	N/A	38,688	191,561	27,944
Class T	4.82 & 7.54	N/A	29/06/2021 & 16/12/2021	4.82 & 7.54	1/12/2024	N/A	N/A	250,000 & 18,000	1,341,080	147,585
Class U	4.82	N/A	29/06/2021	4.82	1/12/2024	N/A	N/A	250,000	1,205,360	175,530
Class V	4.82 & 7.54	N/A	29/06/2021 & 16/12/2021	4.82 & 7.54	1/12/2024	N/A	N/A	100,000 & 18,000	617,864	69,513
Class W	4.82	N/A	29/06/2021	4.82	1/12/2024	N/A	N/A	100,000	482,144	52,488
Class Y	7.54	N/A	16/12/2021	7.54	1/12/2024	N/A	N/A	60,000	452,400	204,326
Class Z	7.54	N/A	16/12/2021	7.54	1/12/2024	N/A	N/A	50,000	377,000	48,417

Details of Performance Rights vesting conditions:

Class J

- the Company announcing, within 36 months from the date of issue, a positive (JORC-Compliant) Definitive Feasibility Study in relation to the Project confirming it is commercially viable; and
- the VWAP for Shares as traded on ASX over 20 consecutive trading days is equal to or greater than 225% of the VWAP for Shares for the last 5 trading days up to but not including the date of the Meeting (the Reference Price).

NOTE 32 SHARE-BASED PAYMENTS (CONT.)

Class P

- the Company announcing before 31 December 2022 a positive Definitive Feasibility Study in relation to the Project confirming it is commercially viable. Performance rights lapsed as the vesting condition had not been satisfied within the intended timeframe.

Class R

- Vesting on issue and converting to shares on a one for one basis on the date that is 24 months from the date of issue.

Class S

- one third vesting 12 months from the date of the 24 June 2021 General Meeting (EGM), one third vesting 24 months from EGM, one third vesting 36 months from EGM.

Class T

- the Company being issued a building permit for the first geothermal power plant or, in the case of a pure heating project with no electricity production, the transfer station, on or before the Expiry Date of 1st December 2024;

Class U

- the Company being issued a building permit for the first Direct Lithium Extraction system, on or before the Expiry Date of 1st December 2024.

Class V

- the Company being granted a permit according to BImSchG for the first lithium refinery, on or before the Expiry Date of 1st December 2024;

Class W

- the Company announcing commissioning of the first commercial lithium extraction plant, on or before the Expiry Date of 1st December 2024;

Class Y:

The Company announcing successful listing of Vulcan Energy on the regulated market of the Frankfurt Stock Exchange on or before the expiry date of 1 December 2024.

Class Z:

Performance Rights will vest upon the Company obtaining project finance for the first commercial plant, on or before the Expiry Date of 1 December 2024.

NOTE 32 SHARE-BASED PAYMENTS (CONT.)

Set out below are summaries of performance rights granted and exercised:

	As at 1 July 2022	Granted	Exercised	Cancelled	Lapsed	As at 31 December 2022	Exercisable performance rights
Class G	250,000	-	-	-	-	250,000	250,000
Class H	553,636	-	(80,909)	-	-	472,727	472,727
Class I	1,000,000	-	(89,091)	-	-	910,909	910,909
Class J	2,500,000	-	-	-	-	2,500,000	-
Class M	1,500,000	-	-	-	-	1,500,000	1,500,000
Class N	1,500,000	-	-	-	-	1,500,000	1,500,000
Class P	368,000	-	-	(8,000)	(360,000)	-	-
Class R	100,000	-	(100,000)	-	-	-	-
Class S	38,688	-	(12,897)	-	-	25,791	-
Class T	268,000	-	-	(8,000)	-	260,000	-
Class U	250,000	-	-	-	-	250,000	-
Class V	118,000	-	-	(8,000)	-	110,000	-
Class W	100,000	-	-	-	-	100,000	-
Class Y	60,000	-	-	-	-	60,000	-
Class Z	50,000	-	-	-	-	50,000	-
Class AA (ADI)	-	90,700	-	-	-	90,700	-
Class AB (LTI)	-	274,200	-	-	-	274,200	-
Class AC (NED)	-	28,474	-	-	-	28,474	-
	8,656,324	393,374	(282,897)	(24,000)	(360,000)	8,382,801	4,633,636

No performance rights expired during the period. Vested conditions of performance rights exercisable at 31 December 2022:

Class G

- Will vest upon the holder completing six months continuous employment with the Company, with an expiry date of 1 December 2023.;

Class H

- the Company announcing, on or before 18 May 2022, a positive Pre-Feasibility Study in relation to the Company's Zero Carbon Lithium Project™ confirming it is commercially viable.

Class I:

-Will vest upon the Company announcing that it has secured either an off-take agreement representing a minimum of 30% of production volume over a three-year term, or a downstream lithium chemicals joint venture partner with a minimum EUR 6,000,000 investment in relation to the Vulcan Lithium Project within three years of issue of the Performance Rights, with an expiry date of 1 December 2023.

Class M:

- the Company announcing, on or before 21 May 2021, a positive Pre-Feasibility Study in relation to the Company's Zero Carbon Lithium Project™ confirming it is commercially viable.

Class N:

-the Company announcing, on or before 21 May 2022, that it has secured either an off-take agreement representing a minimum of 30% of production volume over a three-year term, or a downstream lithium chemicals joint venture partner with a minimum of EUR 6,000,000 investment in relation to the Project.

NOTE 32 SHARE-BASED PAYMENTS (CONT.)

Set out below are summaries of performance rights granted and exercised.

	As at 1 July 2021	Granted	Exercised	Cancelled, Lapsed or Expired	As at 30 June 2022	Exercisable performance rights
Class F	1,250,000	-	(1,250,000)	-	-	-
Class G	250,000	-	-	-	250,000	250,000
Class H	990,000	-	(436,364)	-	553,636	553,636
Class I	1,000,000	-	-	-	1,000,000	1,000,000
Class J	2,500,000	-	-	-	2,500,000	-
Class L	1,000,000	-	(1,000,000)	-	-	-
Class M	1,500,000	-	-	-	1,500,000	-
Class N	1,500,000	-	-	-	1,500,000	-
Class P	310,000	58,000	-	-	368,000	-
Class Q	100,000	-	(100,000)	-	-	-
Class R	100,000	-	-	-	100,000	-
Class S	38,688	-	-	-	38,688	12,897
Class T	250,000	18,000	-	-	268,000	-
Class U	250,000	-	-	-	250,000	-
Class V	100,000	18,000	-	-	118,000	-
Class W	100,000	-	-	-	100,000	-
Class Y	-	60,000	-	-	60,000	-
Class Z	-	50,000	-	-	50,000	-
	11,238,688	204,000	(2,786,364)	-	8,656,324	1,816,533

Set out below are summaries of performance shares granted and exercised.

	As at 1 July 2022	Issued	Exercised	Cancelled, Lapsed or Expired	As at 31 December 2022	Exercisable performance shares
Class D	91,174	-	-	-	91,174	-
	91,174	-	-	-	91,174	-

	As at 1 July 2021	Issued	Exercised	Cancelled, Lapsed or Expired	As at 30 June 2022	Exercisable performance shares
Class C	4,400,000	-	(4,400,000)	-	-	-
Class D	-	91,174	-	-	91,174	-
	4,400,000	91,174	(4,400,000)	-	91,174	-

NOTE 32 SHARE-BASED PAYMENTS (CONT.)

Accounting Policy

Share-based payments

Equity-settled and cash-settled share-based compensation benefits are provided to Key Management Personnel and employees.

Equity-settled transactions are awards of shares, or options over shares, which are provided to employees in exchange for the rendering of services. Cash-settled transactions are awards of cash for the exchange of services, where the amount of cash is determined by reference to the share price.

The cost of equity-settled transactions are measured at fair value on grant date. Fair value is independently determined using an appropriate valuation model that takes into account the exercise price, the term of the option, the impact of dilution, the share price at grant date and expected price volatility of the underlying share, the expected dividend yield and the risk free interest rate for the term of the option, together with non-vesting conditions that do not determine whether the consolidated entity receives the services that entitle the employees to receive payment. No account is taken of any other vesting conditions.

The cost of equity-settled transactions are recognised as an expense with a corresponding increase in equity over the vesting period. The cumulative charge to profit or loss is calculated based on the grant date fair value of the award, the best estimate of the number of awards that are likely to vest and the expired portion of the vesting period. The amount recognised in profit or loss for the period is the cumulative amount calculated at each reporting date less amounts already recognised in previous periods.

The cost of cash-settled transactions is initially, and at each reporting date until vested, determined by applying an appropriate valuation model, taking into consideration the terms and conditions on which the award was granted. The cumulative charge to profit or loss until settlement of the liability is calculated as follows:

- a. During the vesting period, the liability at each reporting date is the fair value of the award at that date multiplied by the expired portion of the vesting period.
- b. From the end of the vesting period until settlement of the award, the liability is the full fair value of the liability at the reporting date.

All changes in the liability are recognised in profit or loss. The ultimate cost of cash-settled transactions is the cash paid to settle the liability.

Market conditions are taken into consideration in determining fair value. Therefore, any awards subject to market conditions are considered to vest irrespective of whether or not that market condition has been met, provided all other conditions are satisfied.

If equity-settled awards are modified, as a minimum an expense is recognised as if the modification has not been made. An additional expense is recognised, over the remaining vesting period, for any modification that increases the total fair value of the share-based compensation benefit as at the date of modification.

If the non-vesting condition is within the control of the consolidated entity or employee, the failure to satisfy the condition is treated as a cancellation. If the condition is not within the control of the consolidated entity or employee and is not satisfied during the vesting period, any remaining expense for the award is recognised over the remaining vesting period, unless the award is forfeited.

If equity-settled awards are cancelled, it is treated as if it has vested on the date of cancellation, and any remaining expense is recognised immediately. If a new replacement award is substituted for the cancelled award, the cancelled and new award is treated as if they were a modification.

NOTE 33 RELATED PARTY DISCLOSURE

Parent entity

Vulcan Energy Resources Limited is the parent entity.

Subsidiaries

Interests in subsidiaries are set out in note 27.

Associates

Interests in associates are set out in note 25.

(a) Key Management Personnel Compensation

The aggregate compensation made to directors and other members of key management personnel of the consolidated entity is set out below.

	6 months	12 months
	31-Dec-22	30-Jun-22
	€	€
	<hr/>	<hr/>
Short-term benefits	770,032	1,240,462
Post-employment benefits	38,325	45,206
Share-based payments	299,871	1,655,046
	<hr/>	<hr/>
	1,108,228	2,940,714
	<hr/>	<hr/>

(b) Transactions with associates

Loans to or from associates

There were no loans to or from associates at 31 December 2022 (30 June 2022: nil).

(c) Transactions with related parties

During the six month period ending 31 December 2022 payments for consultancy fees of €28,089 (30 June 2022: €33,968) were made to JRB Consulting Ltd., a related party of Ms Josephine Bush, in respect of expert advice on ESG reporting. There were no amounts outstanding as at 31 December 2022 to JRB Consulting Ltd (30 June 2022: €8,709) . There was €4,954 outstanding as at 31 December 2022 (30 June 2022: €nil) to Sustineri Strategy Ltd, a related party to Ms Josephine Bush in relation to ESG consulting provided.

On the 8th of September 2022 Vulcan entered into a contract with Dr Horst Kreuter to rent a flat at the rate of €1,810 per month and €418 operating costs monthly. The contract is a short-term lease. No amount was paid from inception of the contract and until 31 October 2022. The amount of €2,715 was outstanding as at 31 October 2022 and nil was outstanding as at 31 December 2022.

During the previous financial year, the Company issued 5,698 shares and 45,587 performance shares to Dr Horst Kreuter for the security consideration for the acquisition of Global Geothermal Holding UG (GGH, a company incorporated under the laws of Germany) on 6 July 2021, following shareholder approval at an EGM held in June 2021. Dr Kreuter was a shareholder of Global Geothermal Holding UG, which held geothermal and lithium exploration licenses applied for by GGH prior to Dr. Kreuter joining Vulcan, that were sold to Vulcan as part of the transaction.

NOTE 33 RELATED PARTY DISCLOSURE (CONT.)
(c) Transactions with related parties (cont.)

The Company also completed the acquisition of GeoThermal Engineering GmbH (GeoT), a geothermal engineering consultancy business, on 2 July 2021 for €1. Dr Kreuter is the sole shareholder of GeoT. Dr. Kreuter will also receive 50% of any payments received from certain debtors to GeoT, if these payments are made to GeoT within

18 months of completion of the acquisition. GeoT owes a debt of approximately €140,000 (plus a nominal amount of interest) to Dr. Kreuter, 50% of which will be paid within three months of completion of the acquisition, with the remaining 50% to be paid by no later than 31 December 2021.

During the previous financial year payments for consultancy fees of €52,834 were made to Alto Group Inc., a related party of Ms Annie Liu. There was no outstanding balance as at 30 June 2022.

Loans to/from related parties

There were no loans to or from related parties at the 31 December 2022 (30 June 2022: nil).

Other than the above, there were no other transactions with related parties during the period ended 31 December 2022.

Terms and conditions

All transactions were made on normal commercial terms and conditions and at market rates.

NOTE 34 COMMITMENTS

Below are the commitments in relation to its exploration and evaluation assets:

	31 Dec 2022 €'000	30 June 2022 €'000
Within one year	5,482	3,422
One to five years	4,708	6,293
	<u>10,190</u>	<u>9,715</u>

Below are the commitments in relation to capital expenditure:

	31 Dec 2022 €'000	30 June 2022 €'000
Within one year	30,383	18,362
One to five years	1,917	3,600
	<u>32,300</u>	<u>21,962</u>

NOTE 35 CONTINGENCIES

The Group has given bank guarantees as at 31 December 2022 of €1,245,000 (30 June 2022: €120,000)

The Group has no contingent assets and liabilities as at 31 December 2022 (30 June 2022 : nil).

NOTE 36 AUDITOR'S REMUNERATION

	31 Dec 2022	30 June 2022
	€'000	€'000
Amounts received or due and receivable by RSM Australia Partners for:		
Audit or review of the annual financial report	73	109
Amounts received or due and receivable by RSM GmbH for:		
Audit or review of the annual financial report	95	88
Other services - RSM Australia Pty Ltd for:		
- Comfort letter in relation to listing prospectus	-	79
	<u>168</u>	<u>276</u>

NOTE 37 ACCUMULATED LOSSES

	6 months	12 months
	31 Dec 22	30 Jun 22
	€'000	€'000
Balance at beginning of the period/year	(28,422)	(9,571)
Loss after income tax for the period/year	(13,450)	(18,851)
Balance at end of the period/year	<u>(41,872)</u>	<u>(28,422)</u>

NOTE 38 PARENT ENTITY

	31 Dec 22	30 Jun 22
	€'000	€'000
Statement of Financial Position		
ASSETS		
Current Assets	64,912	117,542
Non-Current Assets	169,934	133,308
Total Assets	<u>234,846</u>	<u>250,850</u>
LIABILITIES		
Current Liabilities	1,618	3,527
Non Current Liabilities	68	-
Total Liabilities	<u>1,686</u>	<u>3,527</u>
EQUITY		
Issued Capital	259,158	258,933
Reserves	12,984	19,689
Accumulated losses	(38,981)	(31,299)
Total Equity	<u>233,161</u>	<u>247,323</u>
Statement of Profit or Loss and other comprehensive income		
Loss for the period/year	(7,682)	(21,479)

Total Comprehensive Loss

(7,682)

(21,479)

NOTE 38 PARENT ENTITY (CONT.)

Contingent liabilities

Other than disclosed at Note 35, the parent entity has no other contingent assets or contingent liabilities as at 30 June 2022 and 31 December 2022.

Capital commitments - Property, plant and equipment

The parent entity had no capital commitments for property, plant and equipment as at 30 June 2022 and 31 December 2022.

Exploration commitments

The parent entity has no exploration commitments as at 30 June 2022 and 31 December 2022.

Significant accounting policies

The accounting policies of the parent entity are consistent with those of the consolidated entity, as disclosed in the financial statements, except for the following:

- (i.) Investments in subsidiaries are accounted for at cost, less any impairment, in the parent entity.

NOTE 39 DIVIDENDS

No dividend has been declared or paid during the period ended 31 December 2022 (30 June 2022: nil), and the Directors do not recommend the payment of a dividend in respect of the period ended 31 December 2022

Accounting Policy

Dividends

Dividends are recognised when declared during the financial period and no longer at the discretion of the Company.

NOTE 40 EVENTS AFTER THE REPORTING DATE

- On January 4, 2023, Vulcan signed a share purchase agreement to acquire Comeback Personaldienstleistungen GmbH, a company which provides skilled workforce in the drilling industry. The transaction was closed on 31 January 2023. Total consideration for the acquisition was €278,000 comprised of a €150,000 cash component as well as a qualified purchase price component of €128,000. The identifiable net assets and intangibles of the business totalled €296,000. The final purchase price allocation will be determined over the twelve-month period from completion.
- Sustainalytics, a Morningstar Company that is a leading independent ESG and corporate governance research, ratings and analytics firm, delivered Vulcan's first publicly available ESG Risk report in January, giving Vulcan an overall low ESG Risk Score of 16.8.
- Vulcan recently signed a Binding Term Sheet with Stellantis for the first phase of a multiphase project aimed at decarbonising the energy mix of the Rüsselsheim auto manufacturing site in the Upper Rhine Valley, Germany, through the development of new geothermal projects.
- On 13 February 2023, the Company announced the Zero Carbon Lithium Project's Phase One definitive feasibility study results. Key highlights were:
 - Targeting 24Ktpa Lithium Hydroxide Monohydrate (LHM) p.a. production from EU, for EU.
 - Targeting >300GWh/a renewable power, >250GWh/a renewable heat production p.a.
 - >250% increase in estimated NPV: €3.9Bn pre-tax, €2.6Bn post-tax.
 - 34% estimated IRR pre-tax, 26% IRR post-tax.
 - Targeted >€700Mpa estimated revenues. Targeted EBITDA margin of 84%.
 - €1,496M estimated CAPEX, increase broadly in line with larger project and inflation. Low estimated OPEX of €4,359/t LHM.
 - Targeted 3.5-year payback (Integrated Project). Target start of production end-2025. Net zero per tonne estimated LHM carbon footprint.
 - Zero Scope 1 fossil fuels. Net water consumption very low. Increase in Resources and Reserves relative to Integrated Phase One PFS.

Apart from the above, no other matter or circumstance has arisen since 31 December 2022 that has significantly affected, or may significantly affect the consolidated entity's operations, the results of those operations, or the consolidated entity's state of affairs in future financial years.

Directors' Declaration

In the Directors' opinion:

- a) The financial statements and accompanying notes are in accordance with the Corporations Act 2001, including:
 - i) complying with Australian Accounting Standards, the Corporations Regulations 2001 and other mandatory professional reporting requirements; and
 - ii) giving a true and fair view of the consolidated entity's financial position as at 31 December 2022 and of its performance for the six months ended on that date.
- b) The financial statements and notes comply with International Financial Reporting Standards.
- c) There are reasonable grounds to believe that the Company will be able to pay its debts as and when they become due and payable.

The Directors have been given the declarations required by section 295A of the Corporations Act 2001.

This declaration is made in accordance with a resolution of the Board of Directors made pursuant to section 295(5)(a) of the Corporations Act 2001 and is signed for and on behalf of the Directors by:

Gavin Rezos
Chairman

22 March 2023

18.1.6 Independent Auditor's Report

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF VULCAN ENERGY RESOURCES LIMITED

Opinion

We have audited the financial report of Vulcan Energy Resources Limited (the Company) and its subsidiaries (the Group), which comprises the consolidated statement of financial position as at 31 December 2022, the consolidated statement of comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows for the period 1 July 2022 to 31 December 2022, and notes to the financial statements, including a summary of significant accounting policies, and the directors' declaration.

In our opinion, the accompanying financial report of the Group is in accordance with the Corporations Act 2001, including:

- (i) Giving a true and fair view of the Group's financial position as at 31 December 2022 and of its financial performance for the period 1 July 2022 to 31 December 2022; and
- (ii) Complying with Australian Accounting Standards and the *Corporations Regulations 2001*.

Basis for Opinion

We conducted our audit in accordance with Australian Auditing Standards. Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Report* section of our report. We are independent of the Group in accordance with the auditor independence requirements of the *Corporations Act 2001* and the ethical requirements of the Accounting Professional and Ethical Standards Board's APES 110 Code of Ethics for Professional Accountants (the Code) that are relevant to our audit of the financial report in Australia. We have also fulfilled our other ethical responsibilities in accordance with the Code.

We confirm that the independence declaration required by the *Corporations Act 2001*, which has been given to the directors of the Company, would be in the same terms if given to the directors as at the time of this auditor's report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial report of the current period. These matters were addressed in the context of our audit of the financial report as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key Audit Matter	How our audit addressed this matter
Exploration and Evaluation Expenditure- Refer to Note 14 in the financial statements	
The Group has capitalised exploration and evaluation expenditure with a carrying value of €30,135,000 as at 31 December 2022. We considered this to be a key audit matter due to the significant management judgments	Our audit procedures included: <ul style="list-style-type: none">Assessing the Group's accounting policy for Compliance with Australian Accounting Standards;Obtaining a schedule of the areas of interest held by the Group and testing

Key Audit Matter	How our audit addressed this matter
<p>involved in assessing the carrying value of the asset including:</p> <ul style="list-style-type: none"> • Determination of whether the exploration and evaluation expenditure can be associated with finding specific mineral resources and the basis on which that expenditure is allocated to an area of interest; • Assessing whether exploration activities have reached a stage at which the existence of economically recoverable reserves may be determined; and • Assessing whether any indicators of impairment are present and if so, judgement applied to determine and quantify any impairment loss. 	<p>on a sample basis that the right to tenure of each relevant area of interest remained current at reporting date;</p> <ul style="list-style-type: none"> • Testing a sample of additions to supporting documentation and ensuring the amounts capitalised for the period 1 July 2022 to 31 December 2022 are in compliance with the Group's accounting policy and relate to the area of interest; • Enquiring with management and reading budgets and other documentation as evidence that active and significant operations in, or relation to, the area of interest will be continued in the future; • Assessing and evaluating management's determination that exploration activities have not yet progressed to the stage where the existence or otherwise of economically recoverable reserves may be determined; • Assessing and evaluating management's assessment of whether indicators of impairment existed; and • Assessing the appropriateness of disclosures in the financial statements.
Share-based payments - Refer to Note 32 in the financial statements	
<p>During the period, the Group issued performance rights and shares to key management personnel, employees, consultants and vendors.</p> <p>Management has accounted for these instruments in accordance with AASB 2 <i>Share-Based Payment</i>.</p> <p>We have considered this to be a key audit matter because:</p> <ul style="list-style-type: none"> • The complexity of the accounting associated with recording these instruments and management estimation in determining the fair value of instruments granted; • Management judgement is required to determine the probability of vesting conditions of these instruments and 	<p>Our audit procedures included:</p> <ul style="list-style-type: none"> • Assessing the Group's accounting policy for compliance with Australian Accounting Standards; • Obtaining an understanding of the terms and conditions of these instruments granted; • Assessing the completeness of the instruments granted/expired/lapsed at reporting date; • Assessing the appropriateness of management's valuation methodology used to determine the fair value of these instruments granted;

Key Audit Matter	How our audit addressed this matter
<p>the inputs used in the valuation model to value these instruments; and</p> <ul style="list-style-type: none"> The recognition of the share-based payment expense is complex due to the variety of vesting conditions attached to these instruments. 	<ul style="list-style-type: none"> Testing the key inputs used in the valuation model for each instrument granted; Critically assessing management's determination of the vesting probability of each instrument; Recalculating the amount of share-based payment expense recognised for the period 1 July 2022 to 31 December 2022 and reserve balance for accuracy and in accordance with the vesting conditions; and Assessing the appropriateness of disclosures in the financial statements.

Other Information

The directors are responsible for the other information. The other information comprises the information included in the Group's annual report for the period 1 July 2022 to 31 December 2022 but does not include the financial report and the auditor's report thereon.

Our opinion on the financial report does not cover the other information and accordingly we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial report, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial report or our knowledge obtained in the audit or otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of the Directors for the Financial Report

The directors of the Company are responsible for the preparation of the financial report that gives a true and fair view in accordance with Australian Accounting Standards and the *Corporations Act 2001* and for such internal control as the directors determine is necessary to enable the preparation of the financial report that gives a true and fair view and is free from material misstatement, whether due to fraud or error.

In preparing the financial report, the directors are responsible for assessing the ability of the Group to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Group or to cease operations, or have no realistic alternative but to do so.

Auditor's Responsibilities for the Audit of the Financial Report

Our objectives are to obtain reasonable assurance about whether the financial report as a whole is free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the Australian Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of this financial report.

A further description of our responsibilities for the audit of the financial report is located at the Auditing and Assurance Standards Board website at: https://www.auasb.gov.au/admin/file/content102/c3/ar1_2020.pdf This description forms part of our auditor's report.

Report on the Remuneration Report

Opinion on the Remuneration Report

We have audited the Remuneration Report included in the directors' report for the period 1 July 2022 to 31 December 2022.

In our opinion, the Remuneration Report of Vulcan Energy Resources Limited, for the period 1 July 2022 to 31 December 2022, complies with section 300A of the *Corporations Act 2001*.

Responsibilities

The directors of the Company are responsible for the preparation and presentation of the Remuneration Report in accordance with section 300A of the *Corporations Act 2001*. Our responsibility is to express an opinion on the Remuneration Report, based on our audit conducted in accordance with Australian Auditing Standards.

RSM AUSTRALIA PARTNERS

Perth, WA
Dated: 22 March 2023

AIK KONG TING
Partner

18.2 Financial Statements 2022

18.2.1 Consolidated Statement of Profit or Loss and Other Comprehensive Income

For the Financial Year Ended 30 June 2022

	Note	30-Jun- 2022 €'000	30-Jun-2021 €'000
Revenue from continuing operations	4	3,799	-
Other income	5	545	395
Gain on deconsolidation	23	1,975	-
Share of loss from equity accounted investments	23	(495)	-
Other own work capitalised	5	3,696	-
Raw materials and purchased services		(2,512)	-
Administrative expenses	6	(3,823)	(556)
Compliance and regulatory expenses		(729)	(345)
Consulting and legal fees	6	(4,099)	(1,204)
Depreciation and amortisation	6	(2,629)	(82)
Employee benefit expenses	6	(7,793)	(391)
Investor relations expenses		(615)	(257)
Impairment expenses		(36)	(143)
Loss on disposal of financial assets		(745)	-
Occupancy costs		(498)	(35)
Share-based payments expense	30	(3,637)	(4,080)
Other expenses		(1,175)	(76)
Foreign currency gain		285	48
Loss before income tax expense		(18,486)	(6,726)
Income tax expense	7	(365)	-
Loss after income tax for the year		(18,851)	(6,726)
Other comprehensive income			
<i>Items that may be reclassified subsequently to profit or loss</i>			
Foreign currency translations		6,990	849
Total comprehensive loss for the year (net of tax)		(11,861)	(5,877)
Total comprehensive loss for the year attributable to the members of Vulcan Energy Resources Limited		(11,861)	(5,877)
Loss per share for the year attributable to the members Vulcan Energy Resources Limited:			
Basic loss per share (€)	8	(0.15)	(0.08)
Diluted loss per share (€)	8	(0.15)	(0.08)

The Consolidated Statement of Profit or Loss and Other Comprehensive Income should be read in conjunction with the notes to the financial statements.

18.2.2 Consolidated Statement of Financial Position

As at 30 June 2022

	Note	30-Jun-22 €'000	30-Jun-21 €'000
Assets			
Current assets			
Cash and cash equivalents	9	175,416	72,494
Trade and other receivables	10	4,030	757
Contract assets	11	79	-
Inventories	12	138	-
Total current assets		179,663	73,251
Non-current assets			
Investments accounted for using equity method	23	1,214	-
Exploration and evaluation expenditure	13	20,440	8,722
Plant and equipment	14	51,490	935
Right-of-use asset	15	2,990	358
Intangible assets	16	3,633	-
Deferred tax assets	17	1,710	-
Total non-current assets		81,477	10,015
Total assets		261,140	83,266
Liabilities			
Current liabilities			
Trade and other payables	18	8,354	1,335
Lease liabilities	15	439	39
Income tax liabilities		332	-
Provisions	19	608	55
Total current liabilities		9,733	1,429
Non-current liabilities			
Lease liabilities	15	2,566	314
Provisions	19	55	-
Deferred tax liabilities	20	1,463	-
Total Non-current liabilities		4,084	314
Total liabilities		13,817	1,743
Net assets		247,323	81,523
Equity			
Share capital	21	258,933	85,272
Reserves	22	16,812	5,822
Accumulated losses	35	(28,422)	(9,571)
Total equity		247,323	81,523

The Consolidated Statement of Profit or Loss and Other Comprehensive Income should be read in conjunction with the notes to the financial statements.

18.2.3 Consolidated Statement of Changes in Equity

For the Financial Year Ended 30 June 2022

Consolidated	Issued Capital €'000	Reserves €'000	Foreign Currency Reserve €'000	Accumula ted Losses €'000	Total €'000
At 1 July 2021	85,272	4,995	827	(9,571)	81,523
Loss for the year	-	-	-	(18,851)	(18,851)
Other comprehensive income	-	-	6,990	-	6,990
Total comprehensive loss for the year after tax	-	-	6,990	(18,851)	(11,861)
Transactions with owners in their capacity as owners:					
Issue of share capital	178,040				178,040
Share issue costs	(4,379)				(4,379)
Share-based payments	-	4,000	-	-	4,000
Balance at 30 June 2022	258,933	8,995	7,817	(28,422)	247,323

Consolidated	Issued Capital €'000	Reserves €'000	Foreign Currency Reserve €'000	Accumula ted Losses €'000	Total €'000
At 1 July 2020	7,233	1,065	(22)	(2,845)	5,431
Loss for the year	-	-	-	(6,726)	(6,726)
Other comprehensive loss	-		849		849
Total comprehensive loss for the year after tax	-	-	849	(6,726)	(5,877)
Transactions with owners in their capacity as owners:					
Issue of share capital	81,882	-	-	-	81,882
Share issue costs	(3,843)	-	-	-	(3,843)
Share-based payments	-	3,930		-	3,930
Balance at 30 June 2021	85,272	4,995	827	(9,571)	81,523

The Consolidated Statement of Changes in Equity should be read in conjunction with the notes to the financial statements.

18.2.4 Consolidated Statement of Cash Flows

For the Financial Year Ended 30 June 2022

		30-Jun- 2022 €'000	30-Jun-2021 €'000
Cash flows from operating activities	Note		
Receipts from customers		3,799	-
Payments to suppliers and employees		(15,400)	(2,157)
Interest received		228	63
Other income		317	320
Interest paid		(291)	(4)
Net cash used in operating activities	9	(11,347)	(1,778)
Cash flows from investing activities			
Payments for exploration and evaluation expenditure		(9,384)	(3,651)
Payment for plant and equipment		(22,793)	(822)
Payment to acquire subsidiary	26	(32,685)	-
Net cash acquired from acquisition of subsidiary	26	1,230	-
Payments to acquire financial assets		(30,008)	-
Proceeds from disposal of financial assets		29,282	-
Net cash used in investing activities		(64,358)	(4,473)
Cash flows from financing activities			
Proceeds from exercise of listed options		-	2,774
Proceeds from issued shares		176,208	75,119
Share issue costs		(4,378)	(3,844)
Lease repayments		(185)	(14)
Repayment of loan from Associate		409	-
Net cash from financing activities		172,054	74,035
Net increase in cash and cash equivalents		96,349	67,784
Cash and cash equivalents at the beginning of the year		72,784	4,058
Effect of exchange rate fluctuations on cash held		6,573	652
Cash and cash equivalents at the end of the year	8	175,416	72,494

The Consolidated Statement of Cash Flows should be read in conjunction with the notes to the financial statements.

18.2.5 Notes to the Consolidated Financial Statements

NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The principal accounting policies adopted in the preparation of the financial statements are set out below. These policies have been consistently applied to all the years presented, unless otherwise stated.

(a) Reporting Entity

Vulcan Energy Resources Limited (referred to as "Vulcan" or the "Company") is a company domiciled in Australia. The address of the Company's registered office and principal place of business is Level 11, Brookfield Place, 125 St Georges Terrace, Perth WA 6005. The consolidated financial statements of the Company as at and for the year ended 30 June 2022 comprise the Company and its subsidiaries (together referred to as the "consolidated entity" or the "Group"). The principal activity of the Group is geothermal energy and lithium exploration and production.

(b) Basis of Preparation

Statement of compliance

The consolidated financial statements are general purpose financial statements which have been prepared in accordance with Australian Accounting Standards and Interpretations issued by the Australian Accounting Standards Board ("AASB") and the Corporations Act 2001. The consolidated financial statements comply with International Financial Reporting Standards ("IFRS") adopted by the International Accounting Standards Board ("IASB"). Vulcan Energy Resources Limited is a for-profit entity for the purpose of preparing the financial statements.

The annual report was authorised for issue by the Board of Directors on 28 September 2022.

Change in Presentation Currency and Foreign Currency Translation

Vulcan Energy Resources Limited changed its presentation currency from Australian dollars to Euro effective from 1 July 2021. The functional currency remains Australian dollars for Australian entities and Euro for entities located outside of Australia.

Functional and presentation currency

Items included in the financial statements of each of the consolidated entities are measured using the currency of the primary economic environment in which the entity operates ("functional currency"). The consolidated financial statements are presented in Euro, which is Vulcan Energy Resources Limited's presentation currency.

Basis of measurement

The consolidated financial statements have been prepared on a going concern basis in accordance with the historical cost convention, unless otherwise stated.

Parent entity information

In accordance with the Corporations Act 2001, these financial statements present the results of the consolidated entity only. Supplementary information about the parent entity is disclosed in Note 36.

Rounding of amounts

The company is of a kind referred to in Corporations Instrument 2016/191, issued by the Australian Securities and Investments Commission, relating to 'rounding-off'. Amounts in this report have been rounded off in accordance with that Corporations Instrument to the nearest thousand Euro, unless otherwise stated.

New or amended Accounting Standards and Interpretations adopted

The consolidated entity has adopted all of the new or amended Accounting Standards and Interpretations issued by the Australian Accounting Standards Board ('AASB') that are mandatory for the current reporting period.

NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONT.)

Any new or amended Accounting Standards or Interpretations that are not yet mandatory have not been early adopted.

Current and non-current classification

Assets and liabilities are presented in the statement of financial position based on current and non-current classification.

An asset is classified as current when: it is either expected to be realised or intended to be sold or consumed in the consolidated entity's normal operating cycle; it is held primarily for the purpose of trading; it is expected to be realised within 12 months after the reporting period; or the asset is cash or cash equivalent unless restricted from being exchanged or used to settle a liability for at least 12 months after the reporting period. All other assets are classified as non-current.

A liability is classified as current when: it is either expected to be settled in the consolidated entity's normal operating cycle; it is held primarily for the purpose of trading; it is due to be settled within 12 months after the reporting period; or there is no unconditional right to defer the settlement of the liability for at least 12 months after the reporting period. All other liabilities are classified as non-current.

Deferred tax assets and liabilities are always classified as non-current.

New standards and interpretations not yet mandatory or early adopted

Australian Accounting Standards and Interpretations relevant to the Group that have recently been issued or amended but are not yet mandatory, have not been adopted by the Group for the annual reporting period ended 30 June 2022. The Group has not yet assessed the impact of these new or amended Accounting Standards and Interpretations.

The Group has not yet assessed the impact of these new or amended Accounting Standards and Interpretations but does not expect it to have a significant impact on the Group's results.

Significant Judgements and Estimates

The preparation of financial statements requires the use of certain critical accounting estimates. It also requires management to exercise its judgement in the process of applying the consolidated entity's accounting policies. The areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the financial statements are disclosed in Note 2.

(c) Principles of Consolidation

Subsidiaries

The consolidated financial statements incorporate the assets and liabilities of all subsidiaries of Vulcan Energy Resources Limited ('Company' or 'parent entity') as at 30 June 2022 and the results of all subsidiaries for the year then ended.

Subsidiaries are all entities (including special purpose entities) over which the consolidated entity has the power to govern the financial and operating policies, generally accompanying a shareholding of more than one-half of the voting rights. The existence and effect of potential voting rights that are currently exercisable or convertible are considered when assessing whether the consolidated entity controls another entity.

Subsidiaries are fully consolidated from the date on which control is transferred to the consolidated entity. They are de-consolidated from the date that control ceases.

Intercompany transactions, balances and unrealised gains on transactions between consolidated entity companies are eliminated. Unrealised losses are also eliminated unless the transaction provides evidence of the impairment of the asset transferred. Accounting policies of subsidiaries

NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONT.)

have been changed where necessary to ensure consistency with the policies adopted by the consolidated entity.

Subsidiaries (cont)

The acquisition method of accounting is used to account for business combinations by the consolidated entity. A change in ownership interest, without the loss of control, is accounted for as an equity transaction, where the difference between the consideration transferred and the book value of the share of the non-controlling interest acquired is recognised directly in equity attributable to the parent.

Non-controlling interests in the results and equity of subsidiaries are shown separately in the consolidated statement of profit or loss and other comprehensive income, statement of changes in equity and statement of financial position respectively.

Where the consolidated entity loses control over the subsidiary, it derecognises the assets including goodwill, liabilities and non-controlling interest in the subsidiary together with any cumulative transaction differences recognised in equity. The consolidated entity recognises the fair value of the consideration received and the fair value of any investment retained together with any gain or loss on profit or loss.

(d) Foreign Currency Transactions

Transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at period end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in profit or loss.

(e) Foreign operations

The assets and liabilities of foreign operations are translated into Euro using the exchange rates at the reporting date. The revenues and expenses of foreign operations are translated into Euro using the average exchange rates, which approximate the rates at the dates of the transactions, for the period. All resulting foreign exchange differences are recognised in other comprehensive income through the foreign currency reserve in equity.

NOTE 2 CRITICAL ACCOUNTING ESTIMATES, JUDGEMENTS AND ASSUMPTIONS

The preparation of the financial statements requires management to make judgements, estimates and assumptions that affect the reported amounts in the financial statements. Management continually evaluates its judgements and estimates in relation to assets, liabilities, contingent liabilities, revenue and expenses.

Management bases its judgements, estimates and assumptions on historical experience and on other various factors, including expectations of future events, management believes to be reasonable under the circumstances. The resulting accounting judgements and estimates will seldom equal the related actual results. The judgements, estimates and assumptions in these financial statements that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial period are disclosed below.

Business combinations

Business combinations are initially accounted for on a provisional basis. The fair value of assets acquired, liabilities and contingent liabilities assumed are initially estimated by the consolidated entity taking into consideration all available information at the reporting date. Fair value adjustments on the finalisation of the business combination accounting is retrospective, where applicable, to the period the combination occurred and may have an impact on the assets and liabilities, depreciation and amortisation reported.

NOTE 2 CRITICAL ACCOUNTING ESTIMATES, JUDGEMENTS AND ASSUMPTIONS (CONT.)

Exploration and evaluation expenditure

Exploration and evaluation costs have been capitalised on the basis that the consolidated entity will commence commercial production in the future, from which time the costs will be amortised in proportion to the depletion of the mineral resources. Key judgements are applied in considering costs to be capitalised which includes determining expenditures directly related to these activities and allocating overheads between those that are expensed and capitalised. In addition, costs are only capitalised that are expected to be recovered either through successful development or sale of the relevant mining interest. Factors that could impact the future commercial production at the mine include the level of reserves and resources, future technology changes, which could impact the cost of mining, future legal changes and changes in commodity prices. To the extent that capitalised costs are determined not to be recoverable in the future, they will be written off in the period in which this determination is made.

Share-based payments

The Group measures the cost of equity settled transactions with Directors, employees and consultants, where applicable, by reference to the fair value of equity instruments at the date at which they are granted. The fair value is determined using an appropriate valuation model taking into account the terms and conditions upon which the instruments were granted. The accounting estimates and assumptions relating to equity-settled share-based payments would have no impact on the carrying amounts of assets and liabilities within the next annual reporting period but may impact profit or loss and equity.

Estimation of useful lives of assets

The consolidated entity determines the estimated useful lives and related depreciation and amortisation charges for its plant and equipment. The useful lives could change significantly as a result of technical innovations or some other event. The depreciation and amortisation charge will increase where the useful lives are less than previously estimated lives, or technically obsolete or non-strategic assets that have been abandoned or sold will be written off or written down.

Goodwill and other indefinite life intangible assets

The consolidated entity tests annually, or more frequently if events or changes in circumstances indicate impairment, whether goodwill and other indefinite life intangible assets have suffered any impairment, in accordance with the accounting policy stated in note 1. The recoverable amounts of cash-generating units have been determined based on value-in-use calculations. These calculations require the use of assumptions, including estimated discount rates based on the current cost of capital and growth rates of the estimated future cash flows. Refer to note 16 for further information.

Impairment of non-financial assets other than goodwill and other indefinite life intangible assets

The consolidated entity assesses impairment of non-financial assets other than goodwill and other indefinite life intangible assets at each reporting date by evaluating conditions specific to the consolidated entity and to the particular asset that may lead to impairment. If an impairment trigger exists, the recoverable amount of the asset is determined. This involves fair value less costs of disposal or value-in-use calculations, which incorporate a number of key estimates and assumptions.

Income tax

The consolidated entity is subject to income taxes in the jurisdictions in which it operates. Significant judgement is required in determining the provision for income tax. There are many transactions and calculations undertaken during the ordinary course of business for which the ultimate tax determination is uncertain. The consolidated entity recognises liabilities for anticipated tax audit issues based on the consolidated entity's current understanding of the tax law. Where the final tax outcome of these matters is different from the carrying amounts, such differences will impact the current and deferred tax provisions in the period in which such determination is made.

Recovery of deferred tax assets

Deferred tax assets are recognised for deductible temporary differences only if the consolidated entity considers it is probable that future taxable amounts will be available to utilise those temporary differences and losses.

NOTE 2 CRITICAL ACCOUNTING ESTIMATES, JUDGEMENTS AND ASSUMPTIONS (CONT.)

Lease term

The lease term is a significant component in the measurement of both the right-of-use asset and lease liability. Judgement is exercised in determining whether there is reasonable certainty that an option to extend the lease or purchase the underlying asset will be exercised, or an option to terminate the lease will not be exercised, when ascertaining the periods to be included in the lease term. In determining the lease term, all facts and circumstances that create an economical incentive to exercise an extension option, or not to exercise a termination option, are considered at the lease commencement date. Factors considered may include the importance of the asset to the consolidated entity's operations; comparison of terms and conditions to prevailing market rates; incurrence of significant penalties; existence of significant leasehold improvements; and the costs and disruption to replace the asset. The consolidated entity reassesses whether it is reasonably certain to exercise an extension option, or not exercise a termination option, if there is a significant event or significant change in circumstances.

Incremental borrowing rate

Where the interest rate implicit in a lease cannot be readily determined, an incremental borrowing rate is estimated to discount future lease payments to measure the present value of the lease liability at the lease commencement date. Such a rate is based on what the consolidated entity estimates it would have to pay a third party to borrow the funds necessary to obtain an asset of a similar value to the right-of-use asset, with similar terms, security and economic environment.

NOTE 3 SEGMENT INFORMATION

Accounting Policy

Segment Reporting

Operating segments are reported in a manner consistent with the internal reporting provided to the chief operating decision maker. The chief operating decision maker, who is responsible for allocating resources and assessing performance of the operating segments, has been identified as the Board. Management has determined that based on the report reviewed by the Board and used to make strategic decisions, that the consolidated entity has three reportable segment.

Identification of reportable operating segments

The consolidated entity is organised into three operating segments based on geographical location: Germany, Other European (comprised of France, Norway and Italy) and Australia. These operating segments are based on the internal reports that are reviewed and used by the Board of Directors (who are identified as the Chief Operating Decision Makers (CODM)) in assessing performance and in determining the allocation of resources. There is no aggregation of operating segments.

The CODM reviews EBITDA (earnings before interest, tax, depreciation and amortisation). The accounting policies adopted for internal reporting to the CODM are consistent with those adopted in the financial statements.

The information reported to the CODM is on a monthly basis.

Types of products and services

Germany – the supply of geothermal energy, exploration relating to the Zero Carbon Lithium Project™ and engineering services

France, Norway and Italy – exploration relating to battery minerals and geothermal lithium.

Australia – administration and Definitive Feasibility Study ("DFS") ongoing costs.

Intersegment transactions

Intersegment transactions were made at market rates. Engineering services have been provided within the German segment. All intersegment receivables and payables, including the profit margin, are eliminated on consolidation

NOTE 3 SEGMENT INFORMATION (CONT.)

Major customers

During the year ended 30 June 2022, approximately €3.0m (2021: nil) of the consolidated entity's external revenue was derived from sales to Pfalzwerke.

Segment performance	Germany	Other European	Australia	Total
30/06/2022	€'000	€'000	€'000	€'000
Revenue				
Revenue from continuing operations	3,799	-	-	3,799
Intersegment sales – Other own work capitalised	3,696	-	-	3,696
Other income	346	-	199	545
Gain on deconsolidation	-	-	1,975	1,975
Share of loss on Investment	-	-	(495)	(495)
Total segment revenue	7,841	-	1,679	9,520
EBITDA	(7,022)	-	(8,775)	(15,797)
Depreciation and amortisation	(2,629)	-	-	(2,629)
Finance income/(expense) net	(4)	-	(56)	(60)
Loss before income tax expense	(9,655)	-	(8,831)	(18,486)
Income tax expense	(365)	-	-	(365)
Loss after income tax expense	(10,020)	-	(8,831)	(18,851)
Material items include:				
Employee benefit expense	(6,784)	-	(1,009)	(7,793)
Share based payments expense	-	-	(3,637)	(3,637)
	Germany	Other European	Australia	Total
	€'000	€'000	€'000	€'000
Assets				
Segment assets	115,874	160	263,218	379,252
Intersegment eliminations	-	-	-	(118,112)
Total assets				<u>261,140</u>
Liabilities				
Segment liabilities	16,796	160	3,527	20,483
Intersegment eliminations	-	-	-	(6,666)
Total Liabilities				<u>13,817</u>

NOTE 3 SEGMENT INFORMATION (CONT.)

For the year ended 30 June 2021

Segment performance	Exploration Germany	Exploration Norway	Australia	Total
30-Jun-21	€'000	€'000	€'000	€'000
Revenue				
Interest income	-	-	75	75
Other income	205	-	115	320
Total segment revenue	205	-	191	395

Reconciliation of segment results to net loss
before tax:

Amounts not included in segment results but reviewed by the
Board

- Administration, consulting and other expenses	(7,121)
Net loss before tax from continuing operations	(6,726)

Segment assets	Exploration Germany	Exploration Norway	Administration	Total
30-Jun-21	€'000	€'000	€'000	€'000
Total segment asset	10,431	245	72,590	83,266

Segment liabilities	Exploration Germany	Exploration Norway	Administration	Total
30-Jun-21	€'000	€'000	€'000	€'000
Total segment liabilities	1,135	228	380	1,743

NOTE 4 REVENUE

	2022 €'000	2021 €'000
<i>Revenue from contract with customers</i>		
Sale of goods	2,977	-
Rendering of services	822	-
	<u>3,799</u>	<u>-</u>
Revenue from continuing operations	<u>3,799</u>	<u>-</u>
Disaggregation of revenue		

	Electricity sales €'000	Engineering Services €'000	Total €'000
2022			
Timing of revenue recognition			
Goods transferred at a point in time	2,977	-	2,977
Services transferred over time	-	822	822
	<u>2,977</u>	<u>822</u>	<u>3,799</u>

Accounting Policy

The consolidated entity recognises revenue as follows:

Revenue from contracts with customers

Revenue is recognised at an amount that reflects the consideration to which the consolidated entity is expected to be entitled in exchange for transferring goods or services to a customer. For each contract with a customer, the consolidated entity: identifies the contract with a customer; identifies the performance obligations in the contract; determines the transaction price which takes into account estimates of variable consideration and the time value of money; allocates the transaction price to the separate performance obligation on the basis of the relative stand-alone selling price of each distinct good or service to be delivered ; and recognises revenue when or as each performance obligation is satisfied in a manner that depicts the transfer to the customer of the goods and services promised.

Variable consideration within the transaction price, if any, reflects concessions provided to the customer such as discounts, rebates and refunds, any potential bonuses receivable from the customer and any other contingent events. Such estimates are determined using either the 'expected value' or 'most likely amount' method. The measurement of variable consideration is subject to a constraining principle whereby revenue will only be recognised to the extent that it is highly probable that a significant reversal in the amount of cumulative revenue recognised will not occur. The measurement constraint continues until the uncertainty associated with the variable consideration is subsequently resolved. Amounts received that are subject to the constraining principle are recognised as a refund liability.

Sale of goods

Revenue from the sale of goods is recognised at the point in time when the customer obtains control of the goods, which is generally at the time of delivery.

Rendering of services

Revenue from a contract to provide services is recognised over time as the services are rendered based on either a fixed price or an hourly rate.

NOTE 5 OTHER INCOME

	2022 €'000	2021 €'000
Government grants	317	31
Interest income	228	75
R&D tax incentive	-	84
InnoEnergy Funding	-	205
	<u>545</u>	<u>395</u>

	2022 €'000	2021 €'000
Other own work capitalised	3,696	-
	<u>3,696</u>	<u>-</u>

Accounting Policy

Interest

Interest revenue is recognised as interest accrues.

Other revenue

Other revenue is recognised when it is received or when the right to receive payment is established.

Other own work capitalised

Gec-co Global Engineering and Consulting-Company GmbH (renamed to Vulcan Energy Engineering GmbH VEE) and GeoThermal Engineering GmbH (renamed to Vulcan Energy Subsurface Solutions GmbH VES) provide services to Vulcan Energie Ressourcen GmbH, a wholly owned subsidiary of Vulcan Energy Resources Limited which have been capitalised to exploration and evaluation expenditure and property, plant and equipment. These services are disclosed in the statement of profit or loss and other comprehensive income as other own work capitalised. The expenses incurred by Vulcan Energy Engineering GmbH (previously Global Engineering and Consulting- Company GmbH) and Vulcan Energy Subsurface Solutions GmbH (previously GeoThermal Engineering GmbH) to provide these services are disclosed in the statement of profit or loss and other comprehensive income as employee benefit expenses. Other own work capitalised does not relate to any external revenue or any profit margin charge to intercompany transactions.

NOTE 6 EXPENSES

	2022 €'000	2021 €'000
(a) Administrative expenses		
Accounting, audit and company secretarial fees	311	65
Travel expenses	372	33
General expenses	3,140	458
	<u>3,823</u>	<u>556</u>
(b) Consultancy and legal expenses		
Corporate advisory fees	286	55
Consulting fees	1,573	660
Legal fees	2,240	489
	<u>4,099</u>	<u>1,204</u>
(c) Employee benefit expense		
Wages and salaries	6,640	391
Other benefits	1,153	-
	<u>7,793</u>	<u>391</u>
(d) Depreciation and amortisation		
Software	94	3
Plant and Equipment	1,856	61
Right of use assets	200	18
Intangible assets	479	-
	<u>2,629</u>	<u>82</u>

NOTE 7 INCOME TAX

	2022 €'000	2021 €'000
(a) The components of tax expense comprise:		
Current tax	462	-
Deferred tax	(97)	-
Income tax expense reported in the of profit or loss and other comprehensive income	365	-
(b) The prima facie tax on loss from ordinary activities before income tax is reconciled to the income tax as follows:		
Loss before income tax expense	(18,486)	(6,726)
Prima facie tax benefit on loss before income tax at 30% (2021: 30%)	(5,546)	(2,018)
Tax effect of amounts that are not deductible/taxable in calculating taxable income		
Non-deductible expense	682	1,422
Tax losses and temporary differences not brought to account	3,688	499
Foreign corporate rate differential	1,541	97
Income tax expense	365	-
c) Deferred tax assets/(liabilities) not brought to accounts are:		
Accruals	136	59
Prepayments	(107)	(14)
Other	2,308	41
Tax losses	2,461	664
Total deferred tax balances not brought to account	4,798	750

Except for the deferred tax assets (note 17) and deferred tax liabilities (note 20) recognised in the subsidiary, Natürlich Insheim GmbH, potential deferred tax assets attributable to tax losses and other temporary differences have not been brought to account at 30 June 2022 because the directors do not believe it is appropriate to regard realisation of the deferred tax assets as probable at this point in time. These benefits will only be obtained if:

- the consolidated entity derives future assessable income of a nature and of an amount sufficient to enable the benefit from the deductions for the expenditure to be realised; and
- no changes in tax legislation adversely affect the consolidated entity in realising the benefit from the deductions for the expenditure.

Accounting Policy

The income tax expense (revenue) for the year comprises current income tax expense (income) and deferred tax expense (income).

Current Tax

Current income tax expense charged to the profit or loss is the tax payable on taxable income calculated using applicable income tax rates enacted, or substantially enacted, as at the end of the reporting period. Current tax liabilities (assets) are therefore measured at the amounts expected to be paid to (recovered from) the relevant taxation authority.

NOTE 7 INCOME TAX (CONT.)

Deferred Tax

Deferred tax expense reflects movements in deferred tax asset and deferred tax liability balances during the year

as well as unused tax losses.

Current and deferred income tax expense (income) is charged or credited directly to equity instead of the profit or loss when the tax relates to items that are credited or charged directly to equity.

Deferred tax assets and liabilities are ascertained based on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the financial statements. Deferred tax assets also result where amounts have been fully expensed but future tax deductions are available. No deferred income tax will be recognised from the initial recognition of an asset or liability, excluding a business combination, where there is no effect on accounting or taxable profit or loss.

Deferred tax assets and liabilities are calculated at the tax rates that are expected to apply to the period when the asset is realised or the liability is settled, based on tax rates enacted or substantively enacted at the end of the reporting period. Their measurement also reflects the manner in which management expects to recover or settle the carrying amount of the related asset or liability.

Deferred tax assets relating to temporary differences and unused tax losses are recognised only to the extent that it is probable that future taxable profit will be available against which the benefits of the deferred tax asset can be utilised.

Where temporary differences exist in relation to investments in subsidiaries, branches, associates, and joint ventures, deferred tax assets and liabilities are not recognised where the timing of the reversal of the temporary difference can be controlled and it is not probable that the reversal will occur in the foreseeable future.

Current tax assets and liabilities are offset where a legally enforceable right of set-off exists and it is intended that net settlement or simultaneous realisation and settlement of the respective asset and liability will occur. Deferred tax assets and liabilities are offset where a legally enforceable right of set-off exists, the deferred tax assets and liabilities relate to income taxes levied by the same taxation authority on either the same taxable entity or different taxable entities where it is intended that net settlement or simultaneous realisation and settlement of the respective asset and liability will occur in future periods in which significant amounts of deferred tax assets or liabilities are expected to be recovered or settled.

NOTE 8 LOSS PER SHARE

	2022	2021
Net loss for the year €'000	(18,851)	(6,726)
Weighted average number of ordinary shares for basic and diluted loss per share	124,671,203	87,204,203
Basic and diluted loss per share (Euro)	(0.15)	(0.08)

Accounting Policy

Basic Loss Per Share

Basic loss per share is determined by dividing net profit or loss after income tax attributable to members of the Company, excluding any costs of servicing equity other than ordinary shares, by the weighted average number of ordinary shares outstanding during the financial year, adjusted for bonus elements in ordinary shares issued during the year.

NOTE 8 LOSS PER SHARE (CONT.)

Diluted Loss Per Share

Diluted loss per share adjusts the figures used in the determination of basic earnings per share to take into account the after-income tax effect of interest and other financing costs associated with dilutive potential ordinary shares and the weighted average number of shares assumed to have been issued for no consideration in relation to dilutive potential ordinary shares.

NOTE 9 CASH AND CASH EQUIVALENTS

	2022 €'000	2021 €'000
Cash at bank and in hand	150,378	3,891
Short-term deposits	25,038	68,603
	<u>175,416</u>	<u>72,494</u>

Reconciliation of net loss after tax to net cash flows from operations

	2022 €'000	2021 €'000
Loss for the financial year	(18,851)	(6,726)
Share based payment expense	3,637	4,080
Impairment expense	36	143
Depreciation and amortisation	2,629	82
Share issued in exchange for services	478	213
Gain on deconsolidation	(1,975)	-
Share of loss on investment	495	-
FX differences	105	63
Changes in assets/liabilities		
Trade and other receivables	(697)	(72)
Trade and other payables	2,249	392
Movement in provisions	547	47
Net cash used in operating activities	<u>(11,347)</u>	<u>(1,778)</u>

Accounting Policy

Cash and cash equivalents

Cash at bank earns interest at floating rates based on daily deposit rates. Short-term deposits are made in varying periods between one day and three months, depending on the immediate cash requirements of the Group and earn interest at the respective short-term deposit rates.

NOTE 10 TRADE AND RECEIVABLES

	2022 €'000	2021 €'000
Trade and other receivables	4,073	757
Less: Allowance for expected credit loss	(43)	-
	4,030	757

Allowance for expected credit loss

Trade and other receivables are non-interesting bearing and are generally on terms of 30 days. A provision for €43,000 (30 June 2021: nil) has been recorded to cover expected credit loss.

Accounting Policy

Trade and other receivables

Trade and other receivables include amounts due from customers for goods sold and services performed in the ordinary course of business. Receivables expected to be collected within 12 months of the end of the reporting period are classified as current assets.

Goods and Services Tax ('GST')

Revenues, expenses and assets are recognised net of the amount of GST, except where the amount of GST incurred is not recoverable from the Australian Taxation Office. In these circumstances, the GST is recognised as part of the cost of acquisition of the asset or part of the expense.

Receivables and payables are stated inclusive of the amount of GST receivable or payable. The net amount of GST recoverable from, or payable to, the taxation authority is included as a current asset or liability in the Consolidated statement of financial position.

Commitments and contingencies are disclosed net of the amount of GST recoverable from, or payable to, the tax authority. Cash flows are presented in the statement of cash flows on a gross basis, except for the GST on investing and financial activities, which are disclosed as operating cash flows.

Value Added Tax ("VAT")

Revenues expenses and assets are recognised net of VAT, except where the amount of VAT incurred is not recoverable from the German tax authority. In these circumstances the VAT is recognised as part of the cost of acquisition or parts of the expense. Receivables and payables are stated inclusive of the amount of VAT receivable or payable. The net amount of VAT recoverable from, or payable to, the taxation authority is included as a current asset or liability in the Consolidated statement of financial position. Cash flows are presented in the statement of cash flows on a gross basis, except for the VAT on investing and financial activities, which are disclosed as operating cash flows.

Investments and other financial assets

Investments and other financial assets are initially measured at fair value. Transaction costs are included as part of the initial measurement, except for financial assets at fair value through profit or loss. Such assets are subsequently measured at either amortised cost or fair value depending on their classification. Classification is determined based on both the business model within which such assets are held and the contractual cash flow characteristics of the financial asset unless an accounting mismatch is being avoided.

Financial assets are derecognised when the rights to receive cash flows have expired or have been transferred and the consolidated entity has transferred substantially all the risks and rewards of ownership. When there is no reasonable expectation of recovering part or all of a financial asset its carrying value is written off.

NOTE 10 TRADE AND RECEIVABLES (CONT.)

Financial assets at fair value through profit or loss

Financial assets not measured at amortised cost or at fair value through other comprehensive income are classified as financial assets at fair value through profit or loss. Typically, such financial assets will be either: (i) held for trading, where they are acquired for the purpose of selling in the short-term with an intention of making a profit, or a derivative; or (ii) designated as such upon initial recognition where permitted. Fair value movements are recognised in profit or loss.

Financial assets at fair value through other comprehensive income

Financial assets at fair value through other comprehensive income include equity investments which the consolidated entity intends to hold for the foreseeable future and has irrevocably elected to classify them as such upon initial recognition.

Impairment of financial assets

The consolidated entity recognises a loss allowance for expected credit losses on financial assets which are either measured at amortised cost or fair value through other comprehensive income. The measurement of the loss allowance depends upon the consolidated entity's assessment at the end of each reporting period as to whether the financial instrument's credit risk has increased significantly since initial recognition, based on reasonable and supportable information that is available, without undue cost or effort to obtain.

Where there has not been a significant increase in exposure to credit risk since initial recognition, a 12-month expected credit loss allowance is estimated. This represents a portion of the asset's lifetime expected credit losses that is attributable to a default event that is possible within the next 12 months. Where a financial asset has become credit impaired or where it is determined that credit risk has increased significantly, the loss allowance is based on the asset's lifetime expected credit losses. The amount of expected credit loss recognised is measured on the basis of the probability weighted present value of anticipated cash shortfalls over the life of the instrument discounted at the original effective interest rate.

NOTE 11 CONTRACT ASSETS

	2022 €'000	2021 €'000
Contract assets	79	-
	2022 €'000	2021 €'000
<i>Reconciliation</i>		
Reconciliation of the written down values at the beginning and end of the current and previous financial year are set out below		
Opening balance	-	-
Transfer from inventory	79	-
Closing balance	79	-

Accounting policy

Contract assets

Contract assets are recognised when the consolidated entity has transferred goods and services to the customer but where the consolidated entity is yet establish an unconditional right to consideration. Contract assets are treated as financial assets for impairment purposes.

NOTE 12 INVENTORIES

	2022 €'000	2021 €'000
Spare parts	138	-
	138	-

Accounting policy

Inventories

Raw materials, work in progress and finished goods are stated at the lower of cost and net realisable value on a "first in first out" basis. Cost comprises of direct materials and delivery costs, direct labour, import duties and other taxes, an appropriate proportion of variable and fixed overhead expenditure based on normal operating capacity, and, where applicable transfers from cash flow hedging reserves in equity. Costs of purchased inventory are determined after deducting rebates and discounts received or receivable.

NOTE 13 EXPLORATION AND EVALUATION EXPENDITURE

	2022 €'000	2021 €'000
Carrying amount of exploration and evaluation expenditure	20,440	8,722
At the beginning of the year	8,722	1,563
Exploration expenditure incurred	11,273	3,590
Performance shares issued upon acquisition of GGH	363	-
Deconsolidation of Kuniko Ltd	(335)	-
Vulcan Energy Europe acquisition	-	3,627
Impairment expense	-	(143)
Forex Gain	417	85
At the end of the year	20,440	8,722

Accounting Policy

Exploration and evaluation expenditure

Acquisition, exploration, and evaluation costs associated with mining tenements are accumulated in respect of each identifiable area of interest. These costs are only carried forward to the extent that the rights of tenure to that area of interest are current and that the costs are expected to be recouped through the successful commercial development or sale of the area or where activities in the area have not yet reached a stage that permits reasonable assessment of the existence of economically recoverable reserves.

Costs in relation to an abandoned area are written off in full against profit in the period in which the decision to abandon the area is made.

Each area of interest is also reviewed annually, and acquisition costs written off to the extent that they will not be recoverable in the future.

NOTE 14 PLANT AND EQUIPMENT

	2022 €'000	2021 €'000
Software	267	109
Plant & Equipment	28,439	356
Assets under Construction	22,784	470
	<u>51,490</u>	<u>935</u>

Movement in carrying amounts of plant and equipment for year ended 30 June 2022

	Software €'000	Plant & Equipment €'000	Assets under construction €'000	Total €'000
Balance at 1 July 2021	109	356	470	935
Acquired in business combinations	34	28,131	191	28,356
Additions	134	1,892	22,123	24,149
Depreciation	(10)	(1,940)	-	(1,950)
Balance at 30 June 2022	<u>267</u>	<u>28,439</u>	<u>22,784</u>	<u>51,490</u>

Movement in carrying amounts of plant and equipment for year ended 30 June 2021

	Software €'000	Plant & Equipment €'000	Assets under construction €'000	Total €'000
Balance at 1 July 2020	8	-	-	8
Additions	103	414	465	982
Depreciation	(3)	(61)	-	(64)
Forex Loss	1	3	5	9
Balance at 30 June 2021	<u>109</u>	<u>356</u>	<u>470</u>	<u>935</u>

Accounting Policy**Property, plant and equipment**

Plant and equipment is stated at historical cost less accumulated depreciation and impairment. Historical cost

includes expenditure that is directly attributable to the acquisition of the items

Once assets are available for use, depreciation is calculated using the straight-line method to allocate asset costs over their estimated useful lives, as follows:

Software	3 -5 years
Plant & Equipment	2-15 years

The assets' residual values and useful lives are reviewed, and adjusted if appropriate, at each balance date. An asset's carrying amount is written down immediately to its recoverable amount if the asset's carrying amount is greater than its estimated recoverable amount.

NOTE 15 LEASES

Right-of-use asset	Buildings	Vehicles	Hardware and Software	Total
	€'000	€'000	€'000	€'000
Cost				
At 1 July 2021	334	38	-	372
Additions	2,908	261	21	3,190
Leases relinquished	(334)	(38)	-	(372)
At 30 June 2022	2,908	261	21	3,190
Accumulated Depreciation				
At 1 July 2021	10	4	-	14
Depreciation for the year	(107)	(83)	(10)	(200)
Eliminated upon relinquishment	(10)	(4)	-	(14)
	(107)	(83)	(10)	(200)
Carrying amount				
At 1 July 2021	324	34	-	358
At 30 June 2022	2,801	178	11	2,990

Right-of-use asset	Buildings	Vehicles	Hardware and Software	Total
	€'000	€'000	€'000	€'000
Cost				
At 1 July 2020	-	-	-	-
Additions	334	38	-	372
At 30 June 2021	334	38	-	372
Accumulated Depreciation				
At 1 July 2020	-	-	-	-
Depreciation for the year	(10)	(4)	-	(14)
	(10)	(4)	-	(14)
Carrying amount				
At 1 July 2020	-	-	-	-
At 30 June 2021	324	34	-	358

	Buildings	Vehicles	Hardware and Software	Total
	€'000	€'000	€'000	€'000
Lease Liabilities				
At 1 July 2021	325	28	-	353
New lease liabilities entered during the period	2,908	262	21	3,191
Leases relinquished	(325)	(28)	-	(353)
Add: Interest	27	6	-	33
Less: Payment	(131)	(78)	(10)	(219)
Closing Balance	2,804	190	11	3,005

Represented by:				
Current lease liabilities	326	104	9	439

NOTE 15 LEASES (CONT)

Non-current lease liabilities	2,478	86	2	2,566
	2,804	190	11	3,005

NOTE 15 LEASES (CONT)

	Buildings	Vehicles	Hardware and Software	Total
	€'000	€'000	€'000	€'000
Lease Liabilities				
At 1 July 2020	0	0	-	0
New lease liabilities entered during the period	334	37	-	371
Add: Interest	2	1	-	3
Less: Payment	(11)	(10)	-	(21)
Closing Balance	325	28	0	353
Represented by:				
Current lease liabilities	35	4	-	39
Non-current lease liabilities	290	24	-	314
	325	28	0	353

Accounting Policy*Right-of-use assets:*

A right-of-use asset is recognised at the commencement date of a lease. The right-of-use asset is measured at cost, which comprises the initial amount of the lease liability, adjusted for, as applicable, any lease payments made at or before the commencement date net of any lease incentives received, any initial direct costs incurred, and, except where included in the cost of inventories, an estimate of costs expected to be incurred for dismantling and removing the underlying asset, and restoring the site or asset.

Right-of-use assets are depreciated on a straight-line basis over the unexpired period of the lease or the estimated useful life of the asset, whichever is the shorter. Where the consolidated entity expects to obtain ownership of the leased asset at the end of the lease term, the depreciation is over its estimated useful life. Right-of use assets are subject to impairment or adjusted for any remeasurement of lease liabilities.

The consolidated entity has elected not to recognise a right-of-use asset and corresponding lease liability for short-term leases with terms of 12 months or less and leases of low-value assets. Lease payments on these assets are expensed to profit or loss as incurred.

Lease liabilities

A lease liability is recognised at the commencement date of a lease. The lease liability is initially recognised at the present value of the lease payments to be made over the term of the lease, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the consolidated entity's incremental borrowing rate. Lease payments comprise of fixed payments less any lease incentives receivable, variable lease payments that depend on an index or a rate, amounts expected to be paid under residual value guarantees, exercise price of a purchase option when the exercise of the option is reasonably certain to occur, and any anticipated termination penalties. The variable lease payments that do not depend on an index or a rate are expensed in the period in which they are incurred.

Lease liabilities are measured at amortised cost using the effective interest method. The carrying amounts are remeasured if there is a change in the following: future lease payments arising from a change in an index or a rate used; residual guarantee; lease term; certainty of a purchase option and termination penalties. When a lease liability is remeasured, an adjustment is made to the corresponding right-of use asset, or to profit or loss if the carrying amount of the right-of-use asset is fully written down.

NOTE 15 LEASES (CONT)

The Group leases office space, a laboratory and vehicles through its German subsidiary Vulcan Energie Ressourcen GmbH.

NOTE 16 INTANGIBLE ASSETS

	2022 €'000	2021 €'000
Goodwill	1,076	-
Less: Impairment	(36)	-
	<u>1,040</u>	<u>-</u>
Customer contracts – at cost	1,526	-
Less: Accumulated amortisation	(386)	-
	<u>1,140</u>	<u>-</u>
Order backlog – at cost	46	-
Less: Accumulated amortisation	(46)	-
	<u>-</u>	<u>-</u>
Operating permit – at cost	1,500	-
Less: Accumulated amortisation	(47)	-
	<u>1,453</u>	<u>-</u>
	<u>3,633</u>	<u>-</u>

Reconciliation of the written down values at the beginning and the end of the current and previous financial year are set out below:

	Customer Contracts €'000	Order backlog €'000	Operating Permit €'000	Goodwill €'000	TOTAL €'000
Balance at 1 July 2021	-	-	-	-	-
Acquired through business combinations	1,526	46	1,500	1,076	4,148
Less: Accumulated depreciation	(386)	(46)	(47)	-	(479)
Less: Impairment	-	-	-	(36)	(36)
Balance at 30 June 2022	<u>1,140</u>	<u>-</u>	<u>1,453</u>	<u>1,040</u>	<u>3,633</u>

Impairment testing

Goodwill acquired through business combinations have been allocated to the following cash-generating units:

	€'000
Natürlich Insheim	35
GeoThermal Engineering GmbH (Geo-) - renamed to Vulcan Energy	1
Subsurface Solutions GmbH	
Global Engineering & Consulting-Company GmbH (Gec-co) - renamed to	1,040
Vulcan Energy Engineering GmbH	
	<u>1,076</u>

The consolidated entity has subsequently impaired the goodwill related to Insheim and GeoT as at 30 June 2022.

NOTE 16 INTANGIBLE ASSETS (CONT)

The recoverable amount of the consolidated entity's goodwill has been determined by a value-in-use calculation using a discounted cash flow model, based on a 5 year projection period approved by management, together with terminal value.

The following key assumptions were used in the discounted cash flow model:

- 13.2% pre-tax discount rate
- 18% average per annum projected EBITDA

The discount rate of 13.2% pre-tax reflects management's estimate of the time value of money and Gec-co's weighted average cost of capital.

Sensitivity

As disclosed in note 2, the directors have made judgements and estimates in respect of impairment testing of goodwill. Should these judgements and estimates not occur the resulting goodwill carrying amount may decrease. The sensitivities are as follows:

- Pre-tax discount rate would be required to increase to 28.2% for goodwill to be impaired, with all other assumptions remaining constant.
- EBITDA would be required to decrease to 9% for goodwill to be impaired, with all other assumptions remaining constant.

Management believes that other reasonable changes in the key assumptions on which the recoverable amount of the engineering is based would not cause the cash-generating unit's carrying amount to exceed its recoverable amount.

If there are any negative changes in the key assumptions on which the recoverable amount of goodwill is based, this would result in further impairment charge for the engineering division's goodwill.

Accounting Policy

Goodwill and other indefinite life intangible assets

The consolidated entity tests annually, or more frequently if events or changes in circumstances indicate impairment, whether goodwill and other indefinite life intangible assets have suffered any impairment, in accordance with the accounting policy stated in note 1. The recoverable amounts of cash-generating units have been determined based on value-in-use calculations. These calculations require the use of assumptions, including estimated discount rates based on the current cost of capital and growth rates of the estimated future cash flows.

Intangible assets acquired as part of a business combination, other than goodwill, are initially measured at their fair value at the date of the acquisition. Intangible assets acquired separately are initially recognised at cost. Indefinite life intangible assets are not amortised and are subsequently measured at cost less any impairment. Finite life intangible assets are subsequently measured at cost less amortisation and any impairment. The gains or losses recognised in profit and loss arising from the derecognition of intangible assets are measured as the difference between the net disposal proceeds and the carrying amount of the intangible asset. The method and useful lives of finite life intangible assets are reviewed annually. Changes in the expected pattern of consumption or useful life are accounted for prospectively by changing the amortisation method or period.

Impairment of non-financial assets other than goodwill and other indefinite life intangible assets

The consolidated entity assesses impairment of non-financial assets other than goodwill and other indefinite life intangible assets at each reporting date by evaluating conditions specific to the consolidated entity and to the particular asset that may lead to impairment. If an impairment trigger exists, the recoverable amount of the asset is determined. This involves fair value less costs of disposal or value-in-use calculations, which incorporate a number of key estimates and assumptions.

Recoverable amount is the higher of an asset's fair value less costs of disposal and value-in-use. The value-in-use is the present value of the estimated future cash flows relating to the asset using a pre-tax discount rate specific to the asset or cash-generating unit to which the asset belongs.

NOTE 16 INTANGIBLE ASSETS (CONT)

Assets that do not have independent cash flows are grouped together to form a cash-generating unit.

NOTE 17 NON-CURRENT ASSETS : DEFERRED TAX

	2022 €'000	2021 €'000
Deferred tax asset comprises temporary differences attributable to:		
Other	18	-
Property, plant and equipment	1,692	-
 Deferred tax asset	 1,710	 -
<i>Movements:</i>		
Opening balance	-	-
Additions through business combinations	1,768	-
Charged to income statement	(58)	-
Closing balance	<u>1,710</u>	<u>-</u>

NOTE 18 TRADE AND OTHER PAYABLES

	2022 €'000	2021 €'000
Trade payables ⁽ⁱ⁾	6,183	912
Accrued expenses	802	82
Other payables	866	106
VAT Payable	503	235
	<u>8,354</u>	<u>1,335</u>

(i) Trade payables are non-interest bearing and are normally settled on 30-day terms.

Due to the short-term nature of these payables, their carrying value is assumed to be the same as their fair value.

Accounting Policy*Trade and other payables*

Trade payables and other payables represent liabilities for goods and services provided to the Group prior to the end of the financial year which are unpaid. The amounts are unsecured and are usually paid within 30 days of recognition.

NOTE 19 PROVISIONS

Current:

	2022 €'000	2021 €'000
Annual leave provision	<u>608</u>	<u>55</u>

Non-Current:

Other provisions	<u>55</u>	<u>-</u>
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NOTE 19 PROVISIONS (CONT.)

Amounts not expected to be settled within the next 12 months

The current provision for employee benefits includes all unconditional entitlements where employees have completed the required period of service and also those where employees are entitled to pro-rata payments in certain circumstances. The entire amount is presented as current, since the consolidated entity does not have an unconditional right to defer settlement. However, based on past experience, the consolidated entity does not expect all employees to take the full amount of accrued leave or require payment within the next 12 months.

Accounting Policy

Provisions

Provisions are recognised when the consolidated entity has a present (legal or constructive) obligation as a result of a past event, it is probable the consolidated entity will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation. The amount recognised as a provision is the best estimate of the consideration required to settle the present obligation at the reporting date, taking into account the risks and uncertainties surrounding the obligation. If the time value of money is material, provisions are discounted using a current pre-tax rate specific to the liability. The increase in the provision resulting from the passage of time is recognised as a finance cost.

Employee benefits

Defined contribution superannuation expenses

Contributions to defined contribution superannuation plans are expensed in the period in which they are incurred.

Short-term employee benefits

Liabilities for wages and salaries, including non-monetary benefits, annual leave and long service leave expected to be settled wholly within 12 months of the reporting date are measured at the amounts expected to be paid when the liabilities are settled.

Other long-term employee benefits

The liability for annual leave and long service leave not expected to be settled within 12 months of the reporting date are measured at the present value of expected future payments to be made in respect of services provided by employees up to the reporting date using the projected unit credit method. Consideration is given to expected future wage and salary levels, experience of employee departures and periods of service. Expected future payments are discounted using market yields at the reporting date on corporate bonds with terms to maturity and currency that match, as closely as possible, the estimated future cash outflows.

NOTE 20 NON-CURRENT LIABILITIES: DEFERRED TAX

	2022 €'000	2021 €'000
Deferred tax liability comprises temporary differences attributable to:		
Other	2	-
Property, plant and equipment	1,461	-
Deferred tax liability	1,463	-
<i>Movements:</i>		
Opening balance		
Additions through business combinations	1,618	-
Charged to income statement	(155)	-

Closing balance

1,463

-

NOTE 21 CONTRIBUTED EQUITY

	30-Jun-22		30-Jun-21	
	No.'000	€'000	No.'000	€'000
Fully paid ordinary shares	143,094	258,933	108,423	85,272

Ordinary shares

Ordinary shares entitle the holder to participate in the dividends and the proceeds on winding up in proportion to the number of and amounts paid on the shares held.

At shareholders meetings, each ordinary share is entitled to one vote when a poll is called, otherwise each shareholder has one vote on a show of hands.

Share buy-back

There is no current on-market share buy-back.

	Date	Number	Issue Price €	€'000
At 1 July 2021		108,422,717		85,272
Shares issued as consideration for acquisition of Gec-co.	6/07/2021	325,000	5.04	1,637
Shares issued as consideration for acquisition of GGH	6/07/2021	11,396	5.04	57
Shares issued for services rendered	19/08/2021	32,251	7.84	253
Placement	22/09/2021	14,814,815	8.35	123,680
Share Purchase Plan	18/10/2021	228,434	8.65	1,975
Exercise of warrants	1/12/2021	521,304	-	-
Placement	17/12/2021	65,317	8.47	553
Exercise of performance shares	17/12/2021	4,400,000	-	-
Exercise of performance rights	17/12/2021	2,786,364	-	-
Shares issued for services rendered	8/02/2022	37,492	6.00	225
Shares issued to Stellantis	27/06/2022	11,448,959	4.34	49,660
Less capital raising costs				(4,379)
At 30 June 2022		143,094,049		258,933

	Date	Number	Issue Price €	€'000
At 1 July 2020		67,217,755		7,193
Shares issued in lieu of cash fees for services rendered	6/10/2020	400,000	0.53	213
Conversion of Listed Options	2/07/2020-17/12/2020	8,930,765	0.18	1,621
Conversion of Unlisted Listed Options	15/10/2020-26/11/2020	1,125,250	0.50	564
Conversion of Class B Performance Rights	16/09/2020	500,000	-	-
Introducer shares	16/09/2020	660,000	0.56	368
Shares issued to Director	27/11/2020	100,000	1.49	149
Conversion of Class B Performance Shares	15/01/2021	4,400,000	-	-
Conversion of Class E and K Performance Shares	15/01/2021	2,250,000	-	-
Conversion of Listed Options	20/12/2020-20/01/2021	3,457,409	0.18	628
Placement	6/02/2021	18,423,077	4.07	74,964
Conversion of Class H Performance shares	11/05/2021	260,000	-	-
Less capital raising costs		-	-	(3,844)

Placement to Directors	30/06/2021	38,461	4.07	156
Introducer shares	30/06/2021	660,000	4.94	3,260
At 30 June 2021		108,422,717		85,272

Accounting Policy

Ordinary shares are classified as equity. Incremental costs directly attributable to the issue of new shares or options are shown in equity as a deduction, net of tax, from the proceeds. Incremental costs directly attributable to the issue of new shares or options for the acquisition of a business are not included in the cost of the acquisition as part of the purchase consideration.

If the entity reacquires its own equity instruments, for example, as a result of a share buy-back, those instruments are deducted from equity and the associated shares are cancelled. No gain or loss is recognised in the profit or loss and the consideration paid including any directly attributable incremental costs (net of income taxes) is recognised directly in equity.

NOTE 22 RESERVES

	2022 €'000	2021 €'000
Share-based payment reserve	8,995	4,995
Foreign currency translation reserve	7,817	827
Total	16,812	5,822

	Number of Warrants	Number of Performance Shares	Number of Performance Rights	€'000
<u>Movement reconciliation</u>				
On issue at 1 July 2021	512,447	4,400,000	11,238,688	4,995
Issue of performance rights during the year	-	-	204,000	-
Recognition of share - based payment expense for performance rights issued to Directors, staff & consultants (Note 30)	-	-	-	3,289
Performance shares issued upon purchase of GGH	-	91,174	-	363
Recognition of share - based payment expense for performance rights issued to Vendors on Acquisition (Note 30)	-	-	-	218
Issue of unlisted options during the year	-	-	-	-
Exercise of unlisted options during the year	-	-	-	-
Exercise of Performance rights during the year	-	-	(2,786,364)	-
Issue of warrants during the year	8,857	-	-	-
Warrants exercised during the year	(521,304)	-	-	-
Recognition of shared based payment expense for warrants	-	-	-	130
Exercise of Performance Shares during the year	-	(4,400,000)	-	-
On issue at 30 June 2022	-	91,174	8,656,324	8,995

NOTE 22 RESERVES (CONT.)

	Number of Warrants	Number of Listed options	Number of Unlisted Options	Number of Performance Shares	Number of Performance Rights	€ '000
<u>Movement reconciliation</u>	-	-	-	-	-	-
On issue at 1 July 2020	-	12,419,759	-	8,800,000	4,250,000	1,065

Issue of performance rights during the year	-	-	-	-	10,248,688	-
Recognition of share - based payment expense for performance rights issued to Directors, staff & consultants (Note 19)	-	-	-	-	-	2,766
Performance rights cancelled during the year	-	-	-	-	(250,000)	-
Recognition of share - based payment expense for performance rights issued to Vendors on Acquisition (Note 19)	-	-	-	-	-	471
Issue of unlisted options during the year	-	-	1,112,250	-	-	-
Exercise of unlisted options during the year	-	-	(1,112,250)	-	-	-
Recognition of share based payment expense for unlisted options issued (Note 19)	-	-	-	-	-	231
Exercise of listed options during the year	-	(12,388,174)	-	-	-	-
Listed options expired during the year	-	(31,585)	-	-	-	-
Exercise of Performance rights during the year	-	-	-	-	(3,010,000)	-
Warrants issued during the year	512,447	-	-	-	-	-
Recognition of shared based payment expense for warrants issued during the year	-	-	-	-	-	234
Exercise of Performance Shares during the year	-	-	-	(4,400,000)	-	-
Recognition of shared based payment expense for performance rights issued to Directors & staff in prior periods (Note 19)	-	-	-	-	-	228
On issue at 30 June 2021	512,447	-	-	4,400,000	11,238,688	4,995

NOTE 22 RESERVES (CONT.)

The option reserve is used to record the value of share-based payments provided to outside parties, and share-based remuneration provided to employees and directors.

Foreign Currency Translation Reserve

	2022 €'000	2021 €'000
Balance at the beginning of the year	827	(22)
Movement during the year	6,990	849
Balance at the end of the year	7,817	827

The reserve is used to recognise exchange differences arising from the translation of the financial statements of foreign operations to Euro.

NOTE 23 INVESTMENT IN ASSOCIATE

On 24 August 2021, Kuniko Limited successfully completed an initial public offering listing on the Australian Stock Exchange (ASX:KNI), thereby completing the spin-off of the Norwegian assets announced in June 2021. On the 17 August 2021, the initial public offering shares were issued, with the Company retaining a 25.85% shareholding. The loss of control of Kuniko Limited by the Company resulted in €1,975,185 gain on deconsolidation.

The following table summarises the deconsolidation of Kuniko Limited:

	€'000
Net liabilities on deconsolidation of Kuniko Limited	266
Revaluation of interest in Kuniko Limited	1,709
Gain on deconsolidation	1,975

The Company's interest in Kuniko Limited is recognised as an investment in associate accounted for using the equity method, resulting in €1,708,987 investment in associate at deconsolidation. Subsequently, the Company's share of Kuniko Limited's loss for the period was offset against the investment resulting in the amount recognised as investment in associate as follows:

	€'000
Initial carrying value on deconsolidation	1,709
Share of loss in Kuniko Limited for the period 17 August to 30 June 2022	(474)
Share of other comprehensive income	(21)
Investment in associate	1,214

NOTE 23 INVESTMENT IN ASSOCIATE (CONT)

Interests in associates are accounted for using the equity method of accounting. Information relating to associates that are material to the consolidated entity are set out below:

Name	Principal place of business / Country of incorporation	2022 %	Ownership interest 2021 %
Kuniko Ltd	Australia	20.24%	0%

	2022 €'000	Kuniko Ltd 2021 €'000
<i>Summarised statement of financial position</i>		
Current assets	6,985	53
Non-current assets	2,665	245
Total assets	9,650	298
Current liabilities	(678)	(243)
Non-current liabilities	-	(249)
Total liabilities	(678)	(492)
Net assets/(liabilities)	8,972	(194)
<i>Summarised statement of profit or loss and other comprehensive income</i>		
Revenue	-	-
Expenses	(1,391)	(400)
Loss before income tax	(1,391)	(400)
Income tax expense	-	-
Loss after income tax	(1,391)	(400)
Other comprehensive loss	(115)	-
Total comprehensive loss	(1,506)	(400)

Accounting policy

Associates

Associates are entities over which the consolidated entity has significant influence but not control or joint control. Investments in associates are accounted for using the equity method. Under the equity method, the share of the profits or losses of the associate is recognised in profit or loss and the share of the movements in equity is recognised in other comprehensive income. Investments in associates are carried in the statement of financial position at cost plus post-acquisition changes in the consolidated entity's share of net assets of the associate. Goodwill relating to the associate is included in the carrying amount of the investment and is neither amortised nor individually tested for impairment. Dividends received or receivable from associates reduce the carrying amount of the investment.

When the consolidated entity's share of losses in an associate equals or exceeds its interest in the associate, including any unsecured long-term receivables, the consolidated entity does not recognise further losses, unless it has incurred obligations or made payments on behalf of the associate.

The consolidated entity discontinues the use of the equity method upon the loss of significant influence over the associate and recognises any retained investment at its fair value. Any difference between the associate's carrying amount, fair value of the retained investment and proceeds from disposal is recognised in profit or loss.

NOTE 24 ACQUISITION OF SUBSIDIARY

Global Geothermal Holding UG

On 2 July 2021 Vulcan Energie Ressourcen GmbH, a subsidiary of Vulcan Energy Resources Limited, acquired 100% of the shares in Global Geothermal Holding UG ('**GGH**') with an effective date on 2 July 2021 (closing-date). Dr Horst Kreuter, CEO of Vulcan Energie Ressourcen GmbH, and a related party of Vulcan Energy Resources Limited, and Mr Thorsten Weimann, Chief Operating Officer and a related party of Vulcan Energy Resources Limited were the sole shareholders of GGH.

With a share price at closing date of €5.04 (AUD7.90), the agreed purchase price for 11,396 ordinary shares amounted to €57,411.

Additionally, 91,174 performance shares with a fair value €363,307 have been recognised as deferred consideration, based on management's assessment of the probability of achieving the performance milestones. The performance shares were issued in equal number to Dr Horst Kreuter and Mr Thorsten Weimann. Milestones as follows:

The Performance Shares will convert into Shares upon achievement of any of the following in relation to any of the licenses held by GGH:

- (a) the Company (or any of its subsidiaries) obtaining a positive approval for geothermal brine production from the relevant governmental authority following a provisional environmental impact assessment;
- (b) the Company (or any of its subsidiaries) obtaining approval for the construction and operation of a main operating plant under Germany's Federal Mining Act (BBergG);
- (c) the Company (or any of its subsidiaries) obtaining the first approval for a special operating plan in accordance with BBergG;
- (d) the Company (or any of its subsidiaries) the first approval or pre-approval from the relevant governmental authority for the construction of a geothermal organic rankine cycle plant; or
- (e) the Company (or any of its subsidiaries) obtaining the first approval or pre-approval from the relevant governmental authority for the construction of a direct lithium extraction (lithium conveying) plant.

Purchase Consideration:	€
Shares issued	57,411
Performance shares issued (refer to note 13)	363,307
Net consideration	420,718

Net Assets Acquired:	€
Fair value of net liabilities acquired	(1,193)
Exploration and evaluation expenditure	421,911
Net assets acquired	420,718

Management has determined that the acquisitions do not meet the definition of a business within AASB 3 Business Combinations. The transactions have been accounted for as an asset acquisition.

Since GGH is an entity which holds exploration licences including Taro where the majority of the indicated resources is generated from, the acquisition of GGH is considered an asset acquisition rather than a business combination.

NOTE 24 ACQUISITION OF SUBSIDIARY(CONT)

Accounting Policy

Asset Acquisition not constituting a Business

When an asset acquisition does not constitute a business combination, the assets and liabilities are assigned a carrying amount based on their relative fair values in an asset purchase transaction and no deferred tax will arise in relation to the acquired assets and assumed liabilities as the initial recognition exemption for deferred tax under AASB 112 applies. No goodwill will arise on the acquisition and transaction costs of the acquisition will be included in the capitalised cost of the asset.

NOTE 25 INTERESTS IN SUBSIDIARIES

The consolidated financial statements incorporate assets, liabilities and results of the following wholly-owned subsidiaries in accordance with the accounting policy described in note 1

Entity	Location	Primary activity	Date of foundation or acquisition	Ownership Interest 2022 (%)	Ownership Interest 2021 (%)
Global Geothermal Holding UG	Karlsruhe	Group holding	July 2, 2021	100	0
GeoThermal Engineering GmbH (renamed to Vulcan Energy Subsurface Solutions GmbH)	Karlsruhe	Operating entity	July 2, 2021	100	0
Gec-co Global Engineering and Consulting-Company GmbH (renamed to Vulcan Energy Engineering GmbH)	Augsburg	Operating entity	July 2, 2021	100	0
Vulcan Geothermal GmbH	Karlsruhe	Group holding	July 09, 2021	100	0
VER GEO LIO GmbH	Karlsruhe	Group holding	July 12, 2021	100	0
Vercana GmbH	Karlsruhe	Operating entity	December 09, 2021	100	0
Natürlich Insheim GmbH	Karlsruhe (previously: Ludwigshafen)	Operating entity	December 31, 2021	100	0
Koppar Resources Europe Pty Limited (renamed to Kuniko Limited)	Perth	Operating entity	May 24, 2017	0	100
Vulcan Energy Europe Pty Limited	Perth	Operating entity	October 11, 2019	100	100
Vulcan Energie Ressourcen GmbH	Karlsruhe	Operating entity	September 26, 2019	100	100
Vulcan Italy Limited	Perth	Operating entity	July 5, 2021	100	0

NOTE 26 BUSINESS COMBINATIONS

Natürlich Insheim GmbH (previously: Pfalzwerke Geofuture GmbH)

VER GEO LIO GmbH, an indirect subsidiary of Vulcan Energy Resources Limited, acquired 100% shares in Natürlich Insheim GmbH ('**Natürlich Insheim**'), in accordance with the Share Purchase Agreement, with an effective date on 31 December 2021 (closing-date).

The preliminary purchase price for the acquisition of Natürlich Insheim amounted to €32,684,814 and was paid in cash. The preliminary purchase price has been adjusted by €1,410,417 based on

the purchase price adjustments stated in the Share Purchase Agreement. Therefore, the adjusted purchase price amounts to €31,274,397 and is now final.

The acquired business contributed revenues of €2,976,987 and a loss after tax of €105,243 to the consolidated entity for the period 1 January 2022 to 30 June 2022. If the acquisition occurred on 1 July 2021 the full year contributions would have been revenues of €5,953,974, a loss after tax of €210,486 and EBITDA of €1,352,836.

Natürlich Insheim owns and operates a geothermal power plant in Insheim, Germany.

The values identified in relation to the acquisition of Insheim are final as at 30 June 2022.

Details of the acquisition are as follows:

	€'000
Cash	922
Trade and other receivables	754
Inventory	138
Property, plant & equipment	28,313
Deferred tax asset	1,747
Trade and other payables	(894)
Other provisions	(50)
Fair value of net assets acquired	30,930
Goodwill	35
Operating permit	1,500
Intangibles acquired on acquisition	1,535
Deferred tax liabilities arising on acquisition	(1,191)
Acquisition-date fair value of total consideration	31,274
Representing:	
	€'000
Cash paid	32,685
Loan repayment to Pfalzwerke Geofuture GmbH	(1,300)
Profit transfer adjustment	(111)
Total consideration	31,274

Gec-co Global Engineering & Consulting-Company GmbH

Vulcan Energie Ressourcen GmbH, a subsidiary of Vulcan Energy Resources Limited, acquired 100% of geothermal surface consultancy company, Global Engineering and Consulting - Company GmbH ('**Gec-co**'), in accordance with the Share Purchase Agreement, with an effective date on 2 July 2021 (closing-date). Mr Thorsten Weimann, Chief Operating Officer of Vulcan Energy Resources Limited is the sole shareholder of Gec-co.

325,000 fully paid ordinary shares of Vulcan Energy Resources Limited were issued, totalling to €1,627,720 based on a share price at closing date of €5.01 (AUD7.93).

This is an engineering business and operates in the renewables sector. The goodwill of €1.040m represents the expected synergies from merging this business with the other entities and reducing external consultancy costs. The acquired business contributed revenues (including other own works capitalised) of €2,979,154 for sale of services and loss after tax of €900,073 to the consolidated entity for the period from 2 July 2021 to 30 June 2022. As the acquisition occurred on 2 July 2022, the full year contribution is the same as above.

Additionally, a cash payment of €862,750 linked to project development milestones of the Vulcan Zero Carbon Lithium™ Project has been recognised as deferred consideration, based on management's assessment of the probability of achieving the milestones. Milestones as follows:

- (a) The first building permit for the construction of an ORC (geothermal) plant is granted;
- (b) The first building permit or approval pursuant to the German Federal Immission Control Act (BImSchG) for the construction of a DLE (lithium extraction) plant is granted.

The values identified in relation to the acquisition of Gec-co are final as at 30 June 2022.

Details of the acquisition are as follows:

	€'000
Cash	246
Trade and other receivables	557
Contract assets	192
Other assets	122
Trade and other payables	(372)
Loans and borrowings	(348)
Fair value of net assets acquired	397
Customer relationships	1,393
Order backlog	46
Goodwill	1,040
Intangibles acquired on acquisition	2,479
Deferred tax liabilities arising on acquisition	(386)
Acquisition-date fair value of total consideration	2,490
Representing:	
	€'000
Shares issued	1,628
Deferred consideration	862
Total consideration	2,490

GeoThermal Engineering GmbH

Vulcan Energie Ressourcen GmbH, a subsidiary of Vulcan Energy Resources Limited, acquired 100% of the shares in GeoThermal Engineering GmbH ('GeoT') in accordance with the Share Purchase Agreement, with effective date on 2 July 2021 (closing-date). Dr Horst Kreuter, CEO of Vulcan Energie Ressourcen GmbH, and a related party of Vulcan Energy Resources Limited, was the sole shareholder of GeoT.

The acquisition costs for 100% of the shares in GeoT were payable in cash. The agreed purchase price was €1.

GeoT is an independent planning and consulting company for the development of deep geothermal projects worldwide. In cooperation with partners and investors, GeoT develops national and international projects in regions that offer favourable conditions for a sustainable heat and/or power production from geothermal energy. Furthermore, GeoT designs optimally adapted exploration programs for each project by individual composing of the different exploration methods.

The acquired business contributed revenues (including other own work capitalised) of €1,469,495 for sale of services and loss after tax of €263,250 to the consolidated entity for the period from 2 July 2021 to 30 June 2022. As the acquisition occurred on 2 July 2022, the full year contribution is the same as above.

The values identified in relation to the acquisition of GeoT are final as at 30 June 2022.

Details of the acquisition are as follows:

	€
Cash	62,150
Trade and other receivables	151,854
Other assets	134,223
Trade and other payables	(156,342)
Loans and borrowings	(285,330)
Fair value of net liabilities acquired	(93,445)
Customer relationships	133,316
Goodwill	1,298
Intangibles acquired on acquisition	134,614
Deferred tax liabilities arising on acquisition	(41,168)
Acquisition-date fair value of total consideration	1
Representing:	
	€
Cash paid or payable to vendor	1
Total consideration	1

Accounting policy

Business combinations

The acquisition method of accounting is used to account for business combinations regardless of whether equity instruments or other assets are acquired.

The consideration transferred is the sum of the acquisition-date fair values of the assets transferred, equity instruments issued or liabilities incurred by the acquirer to former owners of the acquiree and the amount of any non-controlling interest in the acquiree. For each business combination, the non-controlling interest in the acquiree is measured at either fair value or at the proportionate share of the acquiree's identifiable net assets. All acquisition costs are expensed as incurred to profit or loss.

On the acquisition of a business, the consolidated entity assesses the financial assets acquired and liabilities assumed for appropriate classification and designation in accordance with the contractual terms, economic conditions, the consolidated entity's operating or accounting policies and other pertinent conditions in existence at the acquisition-date.

Where the business combination is achieved in stages, the consolidated entity remeasures its previously held equity interest in the acquiree at the acquisition-date fair value and the difference between the fair value and the previous carrying amount is recognised in profit or loss.

Contingent consideration to be transferred by the acquirer is recognised at the acquisition-date fair value. Subsequent changes in the fair value of the contingent consideration classified as an asset or liability is recognised in profit or loss. Contingent consideration classified as equity is not remeasured and its subsequent settlement is accounted for within equity.

The difference between the acquisition-date fair value of assets acquired, liabilities assumed and any noncontrolling interest in the acquiree and the fair value of the consideration transferred and the fair value of any pre-existing investment in the acquiree is recognised as goodwill. If the consideration transferred and the preexisting fair value is less than the fair value of the identifiable

net assets acquired, being a bargain purchase to the acquirer, the difference is recognised as a gain directly in profit or loss by the acquirer on the acquisition date, but only after a reassessment of the identification and measurement of the net assets acquired, the noncontrolling interest in the acquiree, if any, the consideration transferred and the acquirer's previously held equity interest in the acquiree.

NOTE 27 FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES

The Group's activities expose it to a variety of financial risks: market risk (including foreign exchange risk and interest rate risk), credit risk, liquidity risk and price risk. The Group's overall risk management programme focuses on the unpredictability of the financial markets and seeks to minimise potential adverse effects on the financial performance of the Group. The Group uses different methods to measure and manage different types of risks to which it is exposed.

These include monitoring levels of exposure to interest rate and foreign exchange risk and assessments of market forecasts for interest rate and foreign exchange prices. Ageing analysis and monitoring of specific credit allowances are undertaken to manage credit risk. Liquidity risk is monitored through the development of future cash flow forecasts.

Risk management is carried out by Management and overseen by the Board of Directors with assistance from suitably qualified external advisors.

The main risks arising for the Group are foreign exchange risk, interest rate risk, credit risk and liquidity risk. The Board reviews and agrees policies for managing each of these risks and they are summarised below.

The carrying values of the Group's financial instruments are as follows:

	2022 €'000	2021 €'000
Financial Assets		
Cash and cash equivalents	175,416	72,494
Trade and other receivables	4,030	757
	<u>179,446</u>	<u>73,251</u>
Financial Liabilities		
Trade and other payables	8,354	1,335
Lease liabilities	3,005	353
	<u>11,359</u>	<u>1,688</u>

(a) Market risk

(i) Foreign exchange risk

The Group's exposure to foreign currency risk at the end of the reporting period, expressed in Euro, was as follows:

	2022 €'000	2021 €'000
Trade payables	(2,427)	(1,051)
Other payables	(54)	(55)
	<u>(2,481)</u>	<u>(1,106)</u>

The aggregate net foreign exchange gains/losses recognised in the P&L were:

	2022 €'000	2021 €'000
Net foreign exchange gains recognised in the P&L were (in Euro):	285	48

Sensitivity

As shown in the table above, the group is primarily exposed to changes in EUR/AUD exchange rates. The sensitivity of profit or loss to changes in the exchange rates is:

	Impact on post-tax profit	
	2022	2021
	€'000	€'000
EUR/AUD exchange rate - increase 10% (2020 -10%)*	(215)	7
EUR/AUD exchange rate - decrease 10% (2020 -10%)*	215	(8)
*Holding all other variables constant		

(ii) Interest rate risk

The Group is exposed to interest rate risk, which is the risk that a financial instrument's value will fluctuate as a result of changes in the market interest rates on interest bearing financial instruments. The Group's exposure to this risk relates primarily to the Group's cash and any cash on deposit. The Group does not use derivatives to mitigate these exposures. The Group manages its exposure to interest rate risk by holding certain amounts of cash in fixed and floating interest rate facilities. At the reporting date, the interest rate profile of the Group's interest-bearing financial instruments was:

	2022		2021	
	Weighted average interest rate	Balance	Weighted average interest rate	Balance
		€'000		€'000
Cash and cash equivalents	0.25%	103,558	0.23%	72,494

Sensitivity

Within the analysis, consideration is given to potential renewals of existing positions and the mix of fixed and variable interest rates. The following sensitivity analysis is based on the interest rate risk exposures in existence at the reporting date. The 1% increase and 1% decrease in rates is based on reasonably expected possible changes over a financial year.

At 30 June 2022, if interest rates had moved, as illustrated in the table below, with all other variables held constant, losses and equity would have been affected as follows:

	Profit higher/(lower)	Profit higher/(lower)
	2022	2021
	€	€
+ 1.0% (100 basis points)	1,035,576	724,941
- 1.0% (100 basis points)	(1,035,576)	(724,941)

(b) Credit risk

Credit risk arises from the financial assets of the Group, which comprise cash and cash equivalents, trade and other receivables and other financial assets. The Group's exposure to credit risk arises from potential default of the counterparty, with maximum exposure equal to the carrying amount of the financial assets.

The Group's policy is to trade only with recognised, creditworthy third parties. It is the Group's policy that all customers who wish to trade on credit terms will be subject to credit verification procedures.

In addition, receivable balances are monitored on an ongoing basis with the result that the Group's exposure to bad debts is not significant. There are no significant concentrations of credit risk within the Group except for cash and cash equivalents.

(c) **Liquidity risk**

Liquidity risk is the risk that the Group will not be able to meet its financial obligations as they fall due. The Group's approach to managing liquidity is to ensure, as far as possible, that it will always have sufficient liquidity to meet its liabilities when due, under both normal and stressed conditions, without incurring unacceptable losses or risking damage to its reputation.

The Group manages liquidity risk by maintaining adequate cash reserves from funds raised in the market and by continuously monitoring forecast and actual cash flows. The Group does not have any external borrowings.

The following are the contractual maturities of financial liabilities:

2022	1 year or less €	1-5 years €	> 5 years €	Total €
Trade and other payables	8,354,088	-	-	8,354,088
Lease Liabilities	438,902	837,649	1,727,910	3,004,461

2021

Trade and other payables	1,335,425	-	-	1,335,425
Lease Liabilities	39,430	179,025	134,793	353,248

(d) **Price risk.**

The Group is exposed to the commodity price risk, as its energy sales are predominantly subject to prevailing market prices. The contract with Pfalzwerke guarantees a minimum price of €0.25 per kWh. During the financial year ending 30 June 2022 Vulcan sold 11,908 MWh at an average price of €0.25 per kWh. In a full year of trading 23,000 MWh is expected.

At 50per cent of the upward movement in the price for Mwh, the Group's loss would decrease by €1.9m. At 100 per cent upward price movement the loss would decrease by €3.8m.

(e) **Capital risk management.**

The Group's objectives when managing capital are to:

- Safeguard their ability to continue as a going concern, so that it can continue to provide returns for shareholders and benefits for other stakeholders; and
- Maintain an optimal capital structure to reduce the cost of capital.

In order to maintain or adjust the capital structure, the Group may adjust the number of dividends paid to shareholders, return capital to shareholders, issue new shares or sell assets to reduce debt.

Given the stage of the Company's development there are no formal targets set for return on capital. The Company is not subject to externally imposed capital requirements. The net equity of the Company is equivalent to capital. Net capital is obtained through capital raisings on the Australian Securities Exchange ("ASX").

NOTE 28 CHANGES IN LIABILITIES ARISING FROM FINANCING ACTIVITIES

	Lease liability €'000	Total €'000
Balance at 1 July 2020	-	-
Net cash used in financing activities	(14)	(14)
Additions to leases	367	367
Balance at 30 June 2021	<u>353</u>	<u>353</u>
Balance at 1 July 2021	353	353
Net cash used in financing activities	(185)	(185)
Additions to leases	3,190	3,190
Other changes	(353)	(353)
Balance at 30 June 2022	<u>3,005</u>	<u>3,005</u>

NOTE 29 NON-CASH INVESTING AND FINANCING ACTIVITIES

	2022 €'000	2021 €'000
Additions to the right of use assets	3,190	372
Performance shares issued for consideration of acquisition (note 24)	363	-
Shares issued for consideration of acquisition (note 26), (note 24)	1,685	-
	<u>5,238</u>	<u>372</u>

NOTE 30 SHARE-BASED PAYMENTS

	2022 €'000	2021 €'000
Recognised share-based payment transactions		
Performance rights issued to Directors, staff and consultants (i)	520	2,767
Performance rights issued to Directors & staff in prior periods (ii)	2,769	228
Performance shares issued to Vendors of Acquisition (iii)	218	471
Performance shares issued as consideration for acquisition of subsidiary GGH	363	-
Shares issued for consideration of services	478	213
Shares issued to Director	-	149
Warrants (iv)	130	234
Unlisted Options	-	231
Shares issued to Introducers of Acquisition (Note 13)	-	3,627
	<u>4,478</u>	<u>7,920</u>

	2022 €'000	2021 €'000
Represented by		
Share-based payment expense	3,637	4,080
Investor relations expense	478	213
Introducer fee	-	-
Capitalised exploration assets (Note 13)	363	3,627
	<u>4,478</u>	<u>7,920</u>

(i) *Details of new performance rights issued during the year:*

On 16 December 2021, the company issued 204,000 performance rights to Chief Financial Officer in Germany, Company Secretary and Communications Manager to align their interests to that of the Company's shareholders and assist as an effective means of retaining staff.

Type	Fair value of each right (EUR)	Grant date	Price at grant date (EUR)	Expiry date	Number of rights	Total value of rights (EUR)	Share based payment expense (EUR)
Class P	7.54	16/12/2021	7.54	1/12/2023	58,000	437,320	183,258
Class T	7.54	16/12/2021	7.54	1/12/2024	18,000	135,720	60,428
Class V	7.54	16/12/2021	7.54	1/12/2024	18,000	135,720	21,242
Class Y	7.54	16/12/2021	7.54	1/12/2024	60,000	452,400	211,881
Class Z	7.54	16/12/2021	7.54	1/12/2024	50,000	377,000	43,039
						Total	519,848

NOTE 30 SHARE-BASED PAYMENTS (CONT.)

Details of performance rights vesting conditions:

Class P:

The Company announcing before 31 December 2022 a positive definitive Feasibility Study in relation to Project confirming it is commercially viable with and expiry date of 1 December 2023.

Class T:

The Company being issued a building permit for the first geothermal power plant or, in the case of pure heating project with no electricity production, the transfer station, on or before the Expiry Date of 1 December 2024.

Class V:

The Company is being granted a permit according to BlmSchG for the first lithium refinery, on or before the Expiry Date 1 December 2024.

Class Y:

The Company announcing successful listing of Vulcan Energy on the regulated market of the Frankfurt Stock Exchange on or before the expiry date of 1 December 2024.

Class Z:

Performance Rights will vest upon the Company obtaining project finance for the first commercial plant, on or before the Expiry Date of 1 December 2024.

(ii) Details of performance rights issued in prior years:

Type	Fair value of each right (EUR)	Expected volatility	Grant date	Price at grant date (EUR)	Expiry date	Vesting hurdle (5-day VWAP)	Interest rate	Number of Rights	Total value of Rights (EUR)	Share based payment expense (EUR)
Class F	0.09	N/A	4/09/2019	0.09	4/09/2022	N/A	N/A	1,250,000	116,213	62,139
Class I	0.13	N/A	14/05/2020	0.13	1/12/2023	N/A	N/A	500,000	66,983	50,673
Class I	0.65 & 0.55	N/A	11/9/2020 & 15/9/2020	0.65 & 0.55	1/12/2023	N/A	N/A	250,000 & 250,000	300,000	239,375
Class J	0.55	70%	10/09/2020	0.55	16/09/2023	1.84	0.26 %	2,500,000	1,368,598	294,717
Class L	0.55	70%	10/09/2020	0.55	16/09/2023	1.64	0.26 %	1,000,000	547,439	311,237

Class N	0.55	N/A	10/09/2020	0.55	1/12/2023	N/A	N/A	1,500,000	821,159	533,658
Class P	0.55 & 4.67	N/A	15/09/2020 & 29/06/2021	0.55 & 4.67	1/12/2023	N/A	N/A	250,000 & 60,000	417,700	216,541
Class Q	1.47	N/A	25/11/2020	1.47	27/11/2021	N/A	N/A	100,000	147,060	62,646
Class R	1.47	N/A	25/11/2020	1.47	27/11/2022	N/A	N/A	100,000	147,060	76,428
Class S	4.95	N/A	24/06/2021	4.95	30/06/2025	N/A	N/A	38,688	191,561	117,679
Class T	4.82	N/A	29/06/2021	4.82	1/12/2024	N/A	N/A	250,000	1,205,360	303,555
Class U	4.82	N/A	29/06/2021	4.82	1/12/2024	N/A	N/A	250,000	1,205,360	285,706
Class V	4.82	N/A	29/06/2021	4.82	1/12/2024	N/A	N/A	100,000	482,144	121,423
Class W	4.82	N/A	29/06/2021	4.82	1/12/2024	N/A	N/A	100,000	482,144	92,881
Total									2,768,658	

Details of Performance Rights vesting conditions:

Class F

- Vest immediately and will convert into shares on the Company announcing that it has secured either an offtake agreement representing a minimum of 30% of production volume over a three-year term, or a downstream joint venture partner with a minimum EUR 6,000,000 investment in relation to the Vulcan Lithium Project within 36 months of completion of the Acquisition.

Class I

- Will vest upon the Company announcing that it has secured either an off-take agreement representing a minimum of 30% of production volume over a three-year term, or a downstream lithium chemicals joint venture partner with a minimum EUR 6,000,000 investment in relation to the Vulcan Lithium Project within three years of issue of the Performance Rights, with an expiry date of 1 December 2023.

Class J

- the Company announcing, within 36 months from the date of issue, a positive (JORC-Compliant) Definitive Feasibility Study in relation to the Project confirming it is commercially viable; and
- the VWAP for Shares as traded on ASX over 20 consecutive trading days is equal to or greater than 225% of the VWAP for Shares for the last 5 trading days up to but not including the date of the Meeting (the Reference Price).

Class L

- the Company announcing, within 36 months from the date of issue, that it has secured either an off-take agreement representing a minimum of 30% of production volume over a three-year term, or a downstream lithium chemicals joint venture partner with a minimum of EUR 6,000,000 investment in relation to the Project; and
- the VWAP for Shares as traded on ASX over 20 consecutive trading days is equal to or greater than 200% of the Reference Price.

Class H

- the Company announcing, on or before 18 May 2022, a positive Pre-Feasibility Study in relation to the Company's Zero Carbon Lithium Project™ confirming it is commercially viable.

Class N

- the Company announcing, on or before 21 May 2022, that it has secured either an off-take agreement representing a minimum of 30% of production volume over a three-year term, or a downstream lithium chemicals joint venture partner with a minimum of EUR 6,000,000 investment in relation to the Project.

Class P

- the Company announcing before 31 December 2022 a positive Definitive Feasibility Study in relation to the Project confirming it is commercially viable.

Class Q

- Vesting on issue and converting to shares on a one for one basis on the date that is 12 months from the date of issue.

Class R

- Vesting on issue and converting to shares on a one for one basis on the date that is 24 months from the date of issue.

Class S

- one third vesting 12 months from the date of the 24 June 2021 General Meeting (EGM), one third vesting 24 months from EGM, one third vesting 36 months from EGM.

Class T

- the Company being issued a building permit for the first geothermal power plant or, in the case of a pure heating project with no electricity production, the transfer station, on or before the Expiry Date of 1st December 2024;

Class U

- the Company being issued a building permit for the first Direct Lithium Extraction system, on or before the Expiry Date of 1st December 2024.

Class V

- the Company being granted a permit according to BImSchG for the first lithium refinery, on or before the Expiry Date of 1st December 2024;

Class W

- the Company announcing commissioning of the first commercial lithium extraction plant, on or before the Expiry Date of 1st December 2024;

Class G

- Will vest upon the holder completing six months continuous employment with the Company, with an expiry date of 1 December 2023.

(iii) Details of performance shares issued in prior years:

Type	Fair value of each PS (EUR)	Expected volatility	Grant date	Price at grant date (EUR)	Expiry date	Vesting hurdle (5-day VWAP)	Interest rate	Number of PS	Total value of PS (EUR)	Share based payment expense (EUR)
Class A*	0.09	N/A	4/09/2019	0.09	4/09/2020	N/A	N/A	4,400,000	396,000	-
Class B*	0.09	N/A	4/09/2019	0.09	4/09/2021	N/A	N/A	4,400,000	396,000	-
Class C	0.09	N/A	4/09/2019	0.09	4/09/2022	N/A	N/A	4,400,000	396,000	218,727

*Class A and B has no share-based payment expense for the year due to performance shares vested in the prior year.

All performance shares listed above have been exercised as at 30 June 2022

Details of Performance Shares vesting conditions:

On 4 September 2019, the Company issued 13,200,000 Performance Shares (PS) issued to Vendors of the Vulcan Lithium Project Acquisition which will each convert into a Share on a one for one basis on the satisfaction of milestones. Based on management assessment, percentage of a share-based payment expense has been recognised in the Statement of Profit or Loss and Other Comprehensive Income.

(iv) *Details of warrants issued in prior years:*

On 10 September 2020, 25 November 2020, and 24 June 2021, shareholder approval was obtained to issue total of 521,304 warrants to EIT InnoEnergy. On 16 September 2020, and on 8 January 2021, the Company issued 479,519 and 32,928 warrants respectively, with 8,857 warrants issued on 9 August 2021. All warrants were exercised during the year. These warrants were valued using a Black-Scholes valuation, with the valuation model inputs used to determine the fair value at grant date as follows:

Grant Date	10/09/2020	25/11/2020	24/06/2021
Expiry Date	16/09/2023	8/01/2023	9/08/2024
Share price at grant date (EUR)	0.55	1.53	5.01
Exercise Price	0.00	0.00	0.00
Number of warrants	479,519	32,928	8,857
Fair value at grant date (EUR)	0.55	1.53	5.01
Expected volatility	70%	70%	70%
Risk free rate	0.26%	0.11%	0.20%
Total value (EUR)	265,495	50,352	44,361
Balance at the end of the year (No.)	-	-	-
Share based payment expense (EUR)	49,662	38,812	41,086

All warrants have been exercised as at 30 June 2022.

Set out below are summaries of performance rights granted and exercised:

	As at 1 July 2021	Granted	Exercised	As at 30 June 2022
Class F	1,250,000	-	(1,250,000)	-
Class G	250,000	-	-	250,000
Class H	990,000	-	(436,364)	553,636
Class I	1,000,000	-	-	1,000,000
Class J	2,500,000	-	-	2,500,000
Class K	-	-	-	-
Class L	1,000,000	-	(1,000,000)	-
Class M	1,500,000	-	-	1,500,000
Class N	1,500,000	-	-	1,500,000
Class P	310,000	58,000	-	368,000
Class Q	100,000	-	(100,000)	-
Class R	100,000	-	-	100,000
Class S	38,688	-	-	38,688
Class T	250,000	18,000	-	268,000
Class U	250,000	-	-	250,000
Class V	100,000	18,000	-	118,000
Class W	100,000	-	-	100,000
Class Y	-	60,000	-	60,000
Class Z	-	50,000	-	50,000
	11,238,688	204,000	(2,786,364)	8,656,324

Set out below are summaries of performance rights granted and exercised

	As at 1 July 2020	Granted	Exercised	As at 30 June 2021
Class A	-	-	--	-
Class B	500,000	-	(500,000)	-
Class C	-	-	-	-
Class D	-	-	-	-
Class E	1,250,000	-	(1,250,000)	-
Class F	1,250,000	-	-	1,250,000
Class G	250,000	-	-	250,000
Class H	500,000	750,000	(260,000)	990,000
Class I	500,000	500,000	-	1,000,000
Class J	-	2,500,000	-	2,500,000
Class K	-	1,000,000	(1,000,000)	-
Class L	-	1,000,000	-	1,000,000
Class M	-	1,500,000	-	1,500,000
Class N	-	1,500,000	-	1,500,000
Class P	-	310,000	-	310,000
Class Q	-	100,000	-	100,000
Class R	-	100,000	-	100,000
Class S	-	38,688	-	38,688
Class T	-	250,000	-	250,000
Class U	-	250,000	-	250,000
Class V	-	100,000	-	100,000
Class W	-	100,000	-	100,000
	4,250,000	9,998,688	(3,010,000)	11,238,688

Accounting Policy

Share-based payments

Equity-settled and cash-settled share-based compensation benefits are provided to Key Management Personnel and employees.

Equity-settled transactions are awards of shares, or options over shares, which are provided to employees in exchange for the rendering of services. Cash-settled transactions are awards of cash for the exchange of services, where the amount of cash is determined by reference to the share price.

The cost of equity-settled transactions are measured at fair value on grant date. Fair value is independently determined using an appropriate valuation model that takes into account the exercise price, the term of the option, the impact of dilution, the share price at grant date and expected price volatility of the underlying share, the expected dividend yield and the risk free interest rate for the term of the option, together with non-vesting conditions that do not determine whether the consolidated entity receives the services that entitle the employees to receive payment. No account is taken of any other vesting conditions.

The cost of equity-settled transactions are recognised as an expense with a corresponding increase in equity over the vesting period. The cumulative charge to profit or loss is calculated based on the grant date fair value of the award, the best estimate of the number of awards that are likely to vest and the expired portion of the vesting period. The amount recognised in profit or loss for the period is the cumulative amount calculated at each reporting date less amounts already recognised in previous periods.

The cost of cash-settled transactions is initially, and at each reporting date until vested, determined by applying an appropriate valuation model, taking into consideration the terms and conditions on which the award was granted. The cumulative charge to profit or loss until settlement of the liability is calculated as follows:

- (a) During the vesting period, the liability at each reporting date is the fair value of the award at that date multiplied by the expired portion of the vesting period.
- (b) From the end of the vesting period until settlement of the award, the liability is the full fair value of the liability at the reporting date.

All changes in the liability are recognised in profit or loss. The ultimate cost of cash-settled transactions is the cash paid to settle the liability.

Market conditions are taken into consideration in determining fair value. Therefore, any awards subject to market conditions are considered to vest irrespective of whether or not that market condition has been met, provided all other conditions are satisfied.

If equity-settled awards are modified, as a minimum an expense is recognised as if the modification has not been made. An additional expense is recognised, over the remaining vesting period, for any modification that increases the total fair value of the share-based compensation benefit as at the date of modification.

If the non-vesting condition is within the control of the consolidated entity or employee, the failure to satisfy the condition is treated as a cancellation. If the condition is not within the control of the consolidated entity or employee and is not satisfied during the vesting period, any remaining expense for the award is recognised over the remaining vesting period, unless the award is forfeited.

If equity-settled awards are cancelled, it is treated as if it has vested on the date of cancellation, and any remaining expense is recognised immediately. If a new replacement award is substituted for the cancelled award, the cancelled and new award is treated as if they were a modification.

NOTE 31 RELATED PARTY DISCLOSURE

Parent

entity

Vulcan Energy Resources Limited is the parent entity.

Subsidiaries

Interests in subsidiaries are set out in note 25.

Associates

Interests in associates are set out in note 23.

(a) Key Management Personnel Compensation

The aggregate compensation made to directors and other members of key management personnel of the consolidated entity is set out below.

	2022	2021
	€	€
Short-term benefits	1,240,462	704,063
Post-employment benefits	45,206	32,698
Share-based payments	1,655,046	2,515,034
	<u>2,940,714</u>	<u>3,251,795</u>

(b) Transactions with associates

Loans to or from associates

During the financial year Kuniko Limited repaid the loan of €409,000 to Vulcan Resources Limited. There were no loans to or from associates at 30 June 2022 (30 June 2021: €409,000).

(c) **Transactions with related parties**

During the financial year payments for consultancy fees of €52,834 (2021: €26,946) were made to Alto Group Inc., a related party of Ms Annie Liu. There was no outstanding balance as at 30 June 2022 (2021 €11,056).

During the financial year payments for consultancy fees of €33,968 were made to JRB Consulting Ltd., a related party of Ms Josephine Bush in respect of a Board mandated review of the Company's Target Operating Model and ESG reporting. There was no outstanding balance as at 30 June 2022 (2021 €Nil).

On 6 July 2021, the Company issued 5,698 shares and 45,587 performance shares to Dr Horst Kreuter for the security consideration for the acquisition of Global Geothermal Holding UG (a company incorporated under the laws of Germany) following shareholder approval at an EGM held in June 2021. Dr Kreuter is a shareholder of Global Geothermal Holding UG.

The Company also completed the acquisition of GeoThermal Engineering GmbH (GeoT) on 2 July 2021 for €1. Dr Kreuter is the sole shareholder of GeoT. Dr. Kreuter will also receive 50% of any payments received from certain debtors to GeoT, if these payments are made to GeoT within 18 months of completion of the acquisition. GeoT also repaid debt of approximately €140,000 (plus a nominal amount of interest) to Dr. Kreuter as part of completion of the acquisition during the financial year.

During the previous financial year, payments for corporate advisory services outside of Australia of €28,170 were made to Viaticus Capital, a related party of Mr Rezos. Viaticus Capital also received fees of €30,834 for capital raising fees associated with a placement undertaken in year ending 30 June 2021. The outstanding balance to Viaticus Capital at 30 June 2021 was €43,504. The corporate advisory services agreement with Viaticus Capital entered into in 2018 was amended by mutual agreement during the reporting period to exclude any capital raising, M&A or related services

During the previous financial year Dr Kreuter was CEO of GeoThermal Engineering GmbH (GeoT). GeoThermal Engineering GmbH provides engineering services to Vulcan Energie Ressourcen GmbH, wholly sub of the Vulcan Energy Resources Ltd. During the last financial year, GeoThermal Engineering received €736,609 from Vulcan Energie Ressourcen GmbH. There were no amounts outstanding at 30 June 2021 (2020: nil).

Loans to/from related parties

There were no loans to or from related parties at the 30 June 2022 (30 June 2021: nil).

Other than the above, there were no other transactions with related parties during the year ended 30 June 2022.

Terms and conditions

All transactions were made on normal commercial terms and conditions and at market rates.

NOTE 32 COMMITMENTS

Below are the commitments in relation to its exploration and evaluation assets:

	2022 €'000	2021 €'000
Within one year	3,422	1,005
One to five years	6,293	1,362
	<u>9,715</u>	<u>2,367</u>

The Company is also subject to capital commitments to the value of €18.362m (2021: €nil) relating to capital commitments within 1 year and €3.6m (2021: €nil) 1 year but less than 5 years (2021: €nil).

NOTE 33 CONTINGENCIES

The Group has no contingent assets and liabilities as at 30 June 2022.

In the last financial year, as part of the acquisition of Vulcan Lithium Project, the Company agrees to pay the following by way of deferred consideration of remaining 4,400,000 (13,200,000 less 8,800,000) Performance Shares to be issued to the Vendors, which will each convert into a Share on a one for one basis on satisfaction the following milestones: (i.) 4,400,000 Shares on the Company announcing that it has secured an off-take agreement representing a minimum of 30% of production volume over a three-year term, or a downstream joint venture partner with a minimum \$10,000,000 investment in relation to the Vulcan Lithium Project within 36 months of completion of the Acquisition (Milestone 3), (together, the Deferred Consideration). Other than the above, there are no other contingent assets or contingent liabilities as at 30 June 2021

NOTE 34 AUDITOR'S REMUNERATION

	2022 €'000	2021 €'000
Amounts received or due and receivable by RSM Australia Partners for: Audit or review of the annual financial report	197	59
Other services - RSM Australia Pty Ltd for:		
– Corporate Finance	-	2
– Comfort letter in relation to listing prospectus	-	-
	<u>276</u>	<u>61</u>

NOTE 35 ACCUMULATED LOSSES

	2022 €'000	2021 €'000
Balance at beginning of the year	(9,571)	(2,845)
Loss after income tax for the year	(18,851)	(6,726)
Balance at end of the year	<u>(28,422)</u>	<u>(9,571)</u>

NOTE 36 PARENT ENTITY

	2022 €'000	2021 €'000
Statement of Financial Position		
ASSETS		
Current Assets	117,542	72,426
Non-Current Assets	133,308	9,473
Total Assets	<u>250,850</u>	<u>81,899</u>
LIABILITIES		
Current Liabilities	3,527	381
Total Liabilities	<u>3,527</u>	<u>381</u>
EQUITY		
Issued Capital	258,933	86,268
Reserves	19,689	5,070
Accumulated losses	(31,299)	(9,820)
Total Equity	<u>247,323</u>	<u>81,518</u>
Statement of Profit or Loss and other comprehensive income		
Loss for the year	(21,479)	(6,789)
Total Comprehensive Loss	<u>(21,479)</u>	<u>(6,789)</u>

Contingent liabilities

Other than disclosed at Note 22, the parent entity has no other contingent assets or contingent liabilities as at 30 June 2021 and 30 June 2022.

Capital commitments - Property, plant and equipment

The parent entity had no capital commitments for property, plant and equipment as at 30 June 2021 and 30 June 2022.

Exploration commitments

The parent entity has no exploration commitments.

Significant accounting policies

The accounting policies of the parent entity are consistent with those of the consolidated entity, as disclosed in the financial statements, except for the following:

- (i.) Investments in subsidiaries are accounted for at cost, less any impairment, in the parent entity.

NOTE 37 DIVIDENDS

No dividend has been declared or paid during the year ended 30 June 2022 (30 June 2021:nil), and the Directors do not recommend the payment of a dividend in respect of the year ended 30 June 2022

Accounting Policy

Dividends

Dividends are recognised when declared during the financial period and no longer at the discretion of the Company.

NOTE 38 EVENTS AFTER THE REPORTING DATE

- On 7 July 2022, the Company issued 241,252 ordinary shares, comprising:
 - 182,897 ordinary shares, being a conversion of performance rights, which was part of remuneration for services provided.
 - 58,355 ordinary shares, being the share consideration via Partnership Agreement VUL as Official Partner of Rosberg X Racing, obtaining global exposure of its Zero Carbon Lithium brand & business through advertising & promo space via RXR team.
- On 8 July 2022, Vulcan and Enel Green Power (EGP) signed a binding collaboration agreement to explore and develop its Cesano license in Italy through a joint scoping study. Both companies also agreed to evaluate the opportunity to cooperate on other geothermal lithium projects in Italy. The Cesano license area will become co-owned 50:50 by Vulcan and EGP.
- On 8 July 2022, Vulcan announced it received a positive result for its preliminary EIA application (UVP-V) in its Taro license, to drill six wells for geothermal energy and lithium.
- On 26 July 2022, Vulcan was granted a new exploration license, designated Ried, increasing the Company's license area in the Upper Rhine Valley Brine Field (URVBF) by 277km² to a total of 1,440km².
- On 26 September 2022 Vulcan announced the appointment of Cris Moreno as Deputy Chief Executive Officer (Deputy CEO), effective from 1 November, 2022. Mr. Moreno is an energy and chemicals industry executive with over 20 years' experience in successfully delivering major capital projects, including in the lithium chemicals, cathode and LNG sectors. His technical background is chemical and process engineering.

Apart from the above, no other matter or circumstance has arisen since 30 June 2022 that has significantly affected, or may significantly affect the consolidated entity's operations, the results of those operations, or the consolidated entity's state of affairs in future financial years.

In the Directors' opinion:

- (a) The financial statements and accompanying notes are in accordance with the Corporations Act 2001, including:
 - (i) complying with Australian Accounting Standards, the Corporations Regulations 2001 and other mandatory professional reporting requirements; and
 - (ii) giving a true and fair view of the consolidated entity's financial position as at 30 June 2022 and of its performance for the financial year ended on that date.
- (b) The financial statements and notes comply with International Financial Reporting Standards.
- (c) There are reasonable grounds to believe that the Company will be able to pay its debts as and when they become due and payable.

The Directors have been given the declarations required by section 295A of the Corporations Act 2001.

This declaration is made in accordance with a resolution of the Board of Directors made pursuant to section 295(5)(a) of the Corporations Act 2001 and is signed for and on behalf of the Directors by:

Gavin Rezos

Chairman

28 September 2022

18.2.6 Independent Auditor's Report

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF VULCAN ENERGY RESOURCES LIMITED

We have audited the financial report of Vulcan Energy Resources Limited (the Company) and its subsidiaries (the Group), which comprises the consolidated statement of financial position as at 30 June 2022, the consolidated statement of profit or loss and other comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies, and the directors' declaration.

In our opinion, the accompanying financial report of the Group is in accordance with the Corporations Act 2001, including:

- (i) Giving a true and fair view of the Group's financial position as at 30 June 2022 and of its financial performance for the year then ended; and
- (ii) Complying with Australian Accounting Standards and the Corporations Regulations 2001. Basis for Opinion

We conducted our audit in accordance with Australian Auditing Standards. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Report section of our report. We are independent of the Group in accordance with the auditor independence requirements of the Corporations Act 2001 and the ethical requirements of the Accounting Professional and Ethical Standards Board's APES 110 Code of Ethics for Professional Accountants (the Code) that are relevant to our audit of the financial report in Australia. We have also fulfilled our other ethical responsibilities in accordance with the Code.

We confirm that the independence declaration required by the Corporations Act 2001, which has been given to the directors of the Company, would be in the same terms if given to the directors as at the time of this auditor's report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial report of the current period. These matters were addressed in the context of our audit of the financial report as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key Audit Matter	How our audit addressed this matter
Exploration and Evaluation Expenditure- Refer to Note 13 in the financial statements	
The Group has capitalised exploration and evaluation expenditure with a carrying value of €20,440,000 as at 30 June 2022. We considered this to be a key audit matter due to the significant management judgments involved in assessing the carrying value of the asset including: <ul style="list-style-type: none">Determination of whether the exploration and evaluation expenditure can be associated with finding specific	Our audit procedures included: <ul style="list-style-type: none">Assessing the Group's accounting policy for compliance with accounting standards;Testing that the right to tenure of each relevant area of interest is current;Testing a sample of additions to supporting documentation and ensuring the amounts are capitalised during the year are in compliance the

Key Audit Matter	How our audit addressed this matter
<p>mineral resources and the basis on which that expenditure is allocated to an area of interest;</p> <ul style="list-style-type: none"> Assessing whether exploration activities have reached a stage at which the existence of economically recoverable reserves may be determined; and Assessing whether any indicators of impairment are present and if so, judgement applied to determine and quantify any impairment loss. 	<p>Group's accounting policy and relate to the area of interest;</p> <ul style="list-style-type: none"> Enquiring with management and reading budgets and other documentation as evidence that active and significant operations in, or relation to, the area of interest will be continued in the future; Assessing and evaluating management's determination that exploration activities have not yet progressed to the stage where the existence or otherwise of economically recoverable reserves may be determined; Assessing and evaluating management's assessment of whether indicators of impairment existed at the reporting date; and Assessing the appropriateness of disclosures in the financial statements.
Share-based payments - Refer to Note 22 and 30 in the financial statements	
<p>During the year, the Group issued performance rights, performance shares and shares to key management personnel, employees, consultants and vendors.</p> <p>Management have accounted for these instruments in accordance with AASB 2 Share-Based Payments.</p> <p>We have considered this to be a key audit matter because:</p> <ul style="list-style-type: none"> The complexity of the accounting associated with recording these instruments and management estimation in determining the fair value of instruments granted; Management judgement is required to determine the probability of vesting conditions of these instruments and the inputs used in the valuation model to value these instruments; and The recognition of the share-based payment expense is complex due to the variety of vesting conditions attached to these instruments. 	<p>Our audit procedures included:</p> <ul style="list-style-type: none"> Assessing the Group's accounting policy for compliance with accounting standards; Obtaining an understanding of the terms and conditions of these instruments issued; Assessing the completeness of the instruments issued at reporting date; Assessing the appropriateness of management's valuation methodology; Testing the key inputs used for each instrument issued in the valuation model; Critically assessing management's determination of the vesting probability of each instrument; Recalculating the value of the share-based payment expense to be recognised in consolidated statement

Key Audit Matter	How our audit addressed this matter
	<p>of profit or loss and other comprehensive income; and</p> <ul style="list-style-type: none"> Assessing the appropriateness of disclosures in the financial statements.
Business Combinations – Acquisition of Naturlich Insheim GmbH and Gec-co Global Engineering & Consulting-Company GmbH- Refer to Note 26 in the financial statements	
<p>During the year, the Group completed several Acquisitions of subsidiaries. The most significant acquisitions were related to the acquisition of Naturlich Insheim GmbH and Gec-co Global Engineering & Consulting-Company GmbH.</p> <p>The transactions have been accounted for as a business combination in accordance with AASB 3 <i>Business Combinations</i>.</p> <p>We have considered this to be a key audit matter Because the accounting for the transactions is complex and involves significant judgments. These include the recognition and valuation of consideration</p> <p>paid, determination of the acquisition date and the fair value of the assets and liabilities acquired.</p>	<p>Our audit procedures included:</p> <ul style="list-style-type: none"> Assessing the Group's accounting policy for compliance with accounting standards; Reading the purchase agreements and other associated documents to obtain an understanding of the transactions; Assessing the appropriateness of management's Determination that the acquisitions met the Definition of a business in accordance with accounting standards; Assessing management's determination of the acquisition date and fair value of consideration paid; Assessing the reasonableness of management's determination of the fair value of identifiable assets and liabilities acquired; Checking the mathematical accuracy of the computation of goodwill arising on acquisition; and Assessing the disclosures in the financial statements.

Other Information

The directors are responsible for the other information. The other information comprises the information included in the Group's annual report for the year ended 30 June 2022 but does not include the financial report and the auditor's report thereon.

Our opinion on the financial report does not cover the other information and accordingly we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial report, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial report or our knowledge obtained in the audit or otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of the Directors for the Financial Report

The directors of the Company are responsible for the preparation of the financial report that gives a true and fair view in accordance with Australian Accounting Standards and the Corporations Act 2001 and for such internal control as the directors determine is necessary to enable the preparation of the financial report that gives a true and fair view and is free from material misstatement, whether due to fraud or error.

In preparing the financial report, the directors are responsible for assessing the ability of the Group to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Group or to cease operations, or have no realistic alternative but to do so.

Auditor's Responsibilities for the Audit of the Financial Report

Our objectives are to obtain reasonable assurance about whether the financial report as a whole is free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the Australian Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of this financial report.

A further description of our responsibilities for the audit of the financial report is located at the Auditing and Assurance Standards Board website at: https://www.auasb.gov.au/admin/file/content102/c3/ar1_2020.pdf This description forms part of our auditor's report.

Report on the Remuneration Report

Opinion on the Remuneration Report

We have audited the Remuneration Report included in the directors' report for the year ended 30 June 2022.

In our opinion, the Remuneration Report of Vulcan Energy Resources Limited, for the year ended 30 June 2022, complies with section 300A of the Corporations Act 2001.

Responsibilities

The directors of the Company are responsible for the preparation and presentation of the Remuneration Report in accordance with section 300A of the Corporations Act 2001. Our responsibility is to express an opinion on the Remuneration Report, based on our audit conducted in accordance with Australian Auditing Standards.

RSM AUSTRALIA PARTNERS

Perth, WA

AIK KONG TING

Dated: 28 September 2022

Partner

18.3 Financial Statements 2021

18.3.1 Consolidated Statement of Profit or Loss and Other Comprehensive Income

For the Financial Year Ended 30 June 2021

	Note	2021 \$	2020 \$
Revenue from continuing operations			
Other income	4	631,542	95,342
Expenses			
Administrative expenses	5(a)	(888,145)	(320,920)
Compliance and regulatory expenses		(551,639)	(98,906)
Consulting and legal fees	5(b)	(1,922,771)	(424,603)
Depreciation		(131,522)	-
Employee benefit expenses		(624,829)	(234,551)
Investor relations		(410,338)	(314,510)
Introducer fee		-	(150,000)
Occupancy costs		(55,930)	(18,148)
Impairment expense	10	(228,663)	(286,017)
Share-based payments expense	19	(6,517,484)	(1,690,473)
Other expenses		(120,877)	(103,406)
Foreign currency gain/(losses)		76,042	(7,167)
Loss from continuing operations before income tax		(10,744,614)	(3,553,359)
Income tax expense	6	-	-
Loss from continuing operations after income tax		(10,744,614)	(3,553,359)
Other comprehensive income		(99,993)	(22,016)
Other comprehensive income for the year, net of tax		(99,993)	(22,016)
Total comprehensive loss attributable to the members of Vulcan Energy Resources Limited		(10,844,607)	(3,575,375)
Loss per share for the year attributable to the members Vulcan Energy Resources Limited:			
Basic loss per share (cents)	7	(12.32)	(7.37)
Diluted loss per share (cents)	7	(12.32)	(7.37)

The Consolidated Statement of Profit or Loss and Other Comprehensive Income should be read in conjunction with the notes to the financial statements.

18.3.2 Consolidated Statement of Financial Position

As at 30 June 2021

	Note	2021 \$	2020 \$
ASSETS			
Current assets			
Cash and cash equivalents	8	114,705,865	6,421,557
Trade and other receivables	9	1,197,500	116,071
Total current assets		115,903,365	6,537,628
Non-current assets			
Exploration and evaluation expenditure	10	13,793,798	2,556,980
Plant and equipment	11	1,480,672	13,353
Right-of-use asset	12	566,246	-
Total non-current assets		15,840,716	2,570,333
Total assets		131,744,081	9,107,961
LIABILITIES			
Current liabilities			
Trade and other payables	13	2,113,014	208,222
Lease liabilities	12	62,389	-
Provisions	14	87,584	13,700
Total current liabilities		2,262,987	221,922
Non Current liabilities			
Lease liabilities	12	496,547	-
Total Non current liabilities		496,547	-
Total liabilities		2,759,534	221,922
Net assets		128,984,547	8,886,039
EQUITY			
Contributed equity	15	136,500,372	11,836,741
Reserves	16	7,899,461	1,719,970
Accumulated losses	24	(15,415,286)	(4,670,672)
Total equity		128,984,547	8,886,039

The Consolidated Statement of Profit or Loss and Other Comprehensive Income should be read in conjunction with the notes to the financial statements.

18.3.3 Consolidated Statement of Changes in Equity

For the Financial Year Ended 30 June 2021

	Issued Capital	Reserves	Accumulated Losses	Total
	\$	\$	\$	\$
At 1 July 2020	11,836,741	1,719,970	(4,670,672)	8,886,039
Loss for the year	-	-	(10,744,614)	(10,744,614)
Other comprehensive loss for the year	-	(99,993)	-	(99,993)
Total comprehensive loss for the year after tax	-	(99,993)	(10,744,614)	(10,844,607)
<i>Transactions with owners in their capacity as owners:</i>				
Issue of share capital	130,803,628	-	-	130,803,628
Share issue costs	(6,139,977)	-	-	(6,139,977)
Share-based payments	-	6,279,484	-	6,279,484
Balance at 30 June 2021	136,500,372	7,899,461	(15,415,286)	128,984,547
	\$	\$	\$	\$
At 1 July 2019	4,746,416	164,013	(1,117,313)	3,793,116
Loss for the year	-	-	(3,553,359)	(3,553,359)
Other comprehensive loss for the year	-	(22,016)	-	(22,016)
Total comprehensive loss for the year after tax	-	(22,016)	(3,553,359)	(3,575,375)
<i>Transactions with owners in their capacity as owners:</i>				
Issue of share capital	7,438,810	-	-	7,438,810
Share issue costs	(348,485)	-	-	(348,485)
Share-based payments	-	1,577,973	-	1,577,973
Balance at 30 June 2020	11,836,741	1,719,970	(4,670,672)	8,886,039

The Consolidated Statement of Changes in Equity should be read in conjunction with the notes to the financial statements.

18.3.4 Consolidated Statement of Cash Flows

For the Financial Year Ended 30 June 2021

	Note	2021 \$	2020 \$
Cash flows from operating activities			
Payments to suppliers and employees		(3,446,209)	(1,427,391)
Interest received		100,937	45,342
Other income		510,879	50,000
Interest paid		(6,752)	-
Net cash used in operating activities	8(a)	<u>(2,841,145)</u>	<u>(1,332,049)</u>
Cash flows from investing activities			
Payments for exploration and evaluation costs		(5,832,409)	(1,205,783)
Net cash acquired from acquisition of subsidiary	17	-	404
Payments for software		-	(13,353)
Payment for plant and equipment		(1,312,818)	-
Net cash used in investing activities		<u>(7,145,222)</u>	<u>(1,218,732)</u>
Cash flows from financing activities			
Proceeds from exercise of listed and unlisted options		4,430,809	-
Proceeds from issued shares		120,000,000	5,976,310
Share issue costs		(6,139,997)	(330,545)
Lease repayments		(22,888)	-
Net cash from financing activities		<u>118,267,924</u>	<u>5,645,765</u>
Net increase in cash and cash equivalents		108,281,552	3,094,984
Cash and cash equivalents at the beginning of the year		6,421,557	3,348,996
Effect of exchange rate fluctuations on cash held		2,756	(22,423)
Cash and cash equivalents at the end of the year	8	<u>114,705,865</u>	<u>6,421,557</u>

The Consolidated Statement of Cash Flows should be read in conjunction with the notes to the financial statements.

18.3.5 Notes to the Consolidated Financial Statements

NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

(a) Reporting Entity

Vulcan Energy Resources Limited (referred to as "Vulcan" or the "Company") is a company domiciled in Australia. The address of the Company's registered office and principal place of business is disclosed in the Corporate Directory of the Annual Report. The consolidated financial statements of the Company as at and for the year ended 30 June 2021 comprise the Company and its subsidiaries (together referred to as the "consolidated entity" or the "Group").

(b) Basis of Preparation

Statement of compliance

The consolidated financial statements are general purpose financial statements which have been prepared in accordance with Australian Accounting Standards and Interpretations issued by the Australian Accounting Standards Board ("AASB") and the Corporations Act 2001. The consolidated financial statements comply with International Financial Reporting Standards ("IFRS") adopted by the International Accounting Standards Board ("IASB"). Vulcan Energy Resources Limited is a for-profit entity for the purpose of preparing the financial statements.

The annual report was authorised for issue by the Board of Directors on 2 September 2021.

Basis of measurement

The consolidated financial statements have been prepared on a going concern basis in accordance with the historical cost convention, unless otherwise stated.

Parent entity information

In accordance with the Corporations Act 2001, these financial statements present the results of the consolidated entity only. Supplementary information about the parent entity is disclosed in Note 26.

New, revised or amended standards and interpretations adopted by the Group

The Group has adopted all of the new, revised or amending Accounting Standards and Interpretations issued by the Australian Accounting Standards Board ("AASB") that are mandatory for the current reporting period.

The following Accounting Standards and Interpretations are most relevant to the consolidated entity:

Conceptual Framework for Financial Reporting (Conceptual Framework)

The consolidated entity has adopted the revised Conceptual Framework from 1 July 2020. The Conceptual Framework contains new definition and recognition criteria as well as new guidance on measurement that affects several Accounting Standards, but it has not had a material impact on the consolidated entity's financial statements.

Current and non-current classification

Assets and liabilities are presented in the statement of financial position based on current and non-current classification.

An asset is classified as current when: it is either expected to be realised or intended to be sold or consumed in the consolidated entity's normal operating cycle; it is held primarily for the purpose of trading; it is expected to be realised within 12 months after the reporting period; or the asset is

cash or cash equivalent unless restricted from being exchanged or used to settle a liability for at least 12 months after the reporting period. All other assets are classified as non-current.

A liability is classified as current when: it is either expected to be settled in the consolidated entity's normal operating cycle; it is held primarily for the purpose of trading; it is due to be settled within 12 months after the reporting period; or there is no unconditional right to defer the settlement of the liability for at least 12 months after the reporting period. All other liabilities are classified as non-current.

Equity Instruments

Where the Group's management has elected to present fair value gains and losses on equity investments in OCI, there is no subsequent reclassification of fair value gains and losses to profit or loss following the derecognition of the investment. Dividends from such investments continue to be recognised in the profit or loss as other income when the Group's right to receive payments is established.

Financial Assets – Impairment

From 1 July 2019, the Group assesses on a forward-looking basis the expected credit losses (ECLs) associated with its debt instruments carried at amortised cost and FVOCI. ECLs are based on the difference between the contractual cash flows due in accordance with the contract and all the cash flows that the Group expects to receive. The shortfall is then discounted at an approximation to the asset's original effective interest rate.

The Group assesses at each balance date whether there is objective evidence that a financial asset or group of financial assets is impaired. For trade and other receivables, the Group applies the simplified approach permitted by AASB 9, which requires expected lifetime losses to be recognised from initial recognition of the receivables. The expected credit losses on these financial assets are estimated using a provision matrix based on the Group's historical credit loss experience.

Employee benefits

Short-term employee benefits

Liabilities for wages and salaries, including non-monetary benefits, annual leave and long service leave expected to be settled wholly within 12 months of the reporting date are measured at the amounts expected to be paid when the liabilities are settled.

Other long-term employee benefits

The liability for annual leave and long service leave not expected to be settled within 12 months of the reporting date are measured at the present value of expected future payments to be made in respect of services provided by employees up to the reporting date using the projected unit credit method. Consideration is given to expected future wage and salary levels, experience of employee departures and periods of service. Expected future payments are discounted using market yields at the reporting date on corporate bonds with terms to maturity and currency that match, as closely as possible, the estimated future cash outflows.

Share-based payments

Equity-settled and cash-settled share-based compensation benefits are provided to employees.

Equity-settled transactions are awards of shares, or options over shares, that are provided to employees in exchange for the rendering of services. Cash-settled transactions are awards of cash for the exchange of services, where the amount of cash is determined by reference to the share price.

The cost of equity-settled transactions are measured at fair value on grant date. Fair value is independently determined using either the Binomial or Black-Scholes option pricing model that takes into account the exercise price, the term of the option, the impact of dilution, the share price at grant date and expected price volatility of the underlying share, the expected dividend yield and the risk free interest rate for the term of the option, together with non-vesting conditions that do not determine whether the consolidated entity receives the services that entitle the employees to receive payment. No account is taken of any other vesting conditions.

The cost of equity-settled transactions are recognised as an expense with a corresponding increase in equity over the vesting period. The cumulative charge to profit or loss is calculated based on the grant date fair value of the award, the best estimate of the number of awards that are likely to vest and the expired portion of the vesting period. The amount recognised in profit or loss for the period is the cumulative amount calculated at each reporting date less amounts already recognised in previous periods.

The cost of cash-settled transactions is initially, and at each reporting date until vested, determined by applying either the Binomial or Black-Scholes option pricing model, taking into consideration the terms and conditions on which the award was granted. The cumulative charge to profit or loss until settlement of the liability is calculated as follows:

- during the vesting period, the liability at each reporting date is the fair value of the award at that date multiplied by the expired portion of the vesting period.
- from the end of the vesting period until settlement of the award, the liability is the full fair value of the liability at the reporting date.

All changes in the liability are recognised in profit or loss. The ultimate cost of cash-settled transactions is the cash paid to settle the liability.

Market conditions are taken into consideration in determining fair value. Therefore any awards subject to market conditions are considered to vest irrespective of whether or not that market condition has been met, provided all other conditions are satisfied.

If equity-settled awards are modified, as a minimum an expense is recognised as if the modification has not been made. An additional expense is recognised, over the remaining vesting period, for any modification that increases the total fair value of the share-based compensation benefit as at the date of modification.

If the non-vesting condition is within the control of the consolidated entity or employee, the failure to satisfy the condition is treated as a cancellation. If the condition is not within the control of the consolidated entity or employee and is not satisfied during the vesting period, any remaining expense for the award is recognised over the remaining vesting period, unless the award is forfeited.

If equity-settled awards are cancelled, it is treated as if it has vested on the date of cancellation, and any remaining expense is recognised immediately. If a new replacement award is substituted for the cancelled award, the cancelled and new award is treated as if they were a modification.

New standards and interpretations not yet mandatory or early adopted

Australian Accounting Standards and Interpretations relevant to the Group that have recently been issued or amended but are not yet effective, have not been adopted by the Group for the period ended 30 June 2021 and are outlined in the table below:

Reference	Summary	Application date of the standard	Applies to financial year ended
AASB 2020-8	<p>Amendments to Australian Accounting Standards – Interest Rate Benchmark Reform – Phase 2 Requires that for-profit private sector entities:</p> <p>This Standard amends the Standards to help entities to provide financial statement users with useful information about the effects of the interest rate benchmark reform on those entities' financial statements.</p> <p>As a result of these amendments, an entity:</p> <ul style="list-style-type: none"> a) will not have to derecognise or adjust the carrying amount of financial instruments for changes required by the reform, but will instead update the effective interest rate to reflect the change to the alternative benchmark rate; b) will not have to discontinue its hedge accounting solely because it makes changes required by the reform, if the hedge meets other hedge accounting criteria; and c) will be required to disclose information about new risks arising from the reform and how it manages the transition to alternative benchmark rates. 	1 January 2021	30 June 2022
AASB 2020-3	<p>Annual Improvements to IFRS Standards 2018–2020 and Other Amendments</p> <p>This Standard amends:</p> <ul style="list-style-type: none"> a) the application of AASB 1 by a subsidiary that becomes a first-time adopter after its parent in relation to the measurement of cumulative translation differences; b) AASB 3 to update references to the Conceptual Framework for Financial Reporting; c) AASB 9 to clarify when the terms of a new or modified financial liability are substantially different from the terms of the original financial liability; d) AASB 116 to require an entity to recognise the sales proceeds from selling items produced while preparing property, plant and equipment for its intended use and the related cost in profit or loss, instead of deducting the amounts received from the cost of the asset; e) AASB 137 to specify the costs that an entity includes when assessing whether a contract will be loss-making; and f) AASB 141 to align the fair value measurement requirements in AASB 141 with those in other Australian Accounting Standards. 	1 January 2022	30 June 2023
AASB 2020-1	<p>Amendments to Australian Accounting Standards – Classification of Liabilities as Current or Non-Current</p> <p>Amends AASB 101 to clarify that liabilities are classified as either current or non-current, depending on the rights that exist at the end of the reporting period. Classification is unaffected by the expectations of the entity or events after the reporting date (for example, the receipt of a waiver, a breach of covenant, or settlement of the liability). The mandatory application date of the amendment has been deferred by 12 months to 1 January 2023 by AASB 2020-6.</p>	1 January 2023	30 June 2024
AASB 2021-2	<p>Amendments to Australian Accounting Standards – Disclosure of Accounting Policies and Definition of Accounting Estimates</p>	1 January 2023	30 June 2024

This Standard amends:

AASB 7, to clarify that information about measurement bases for financial instruments is expected to be material to an entity's financial statements;

AASB 101, to require entities to disclose their material accounting policy information rather than their significant accounting policies;

AASB 108, to clarify how entities should distinguish changes in accounting policies and changes in accounting estimates;

AASB 134, to identify material accounting policy information as a component of a complete set of financial statements;

and

AASB Practice Statement 2, to provide guidance on how to apply the concept of materiality to accounting policy disclosures.

The Group has not yet assessed the impact of these new or amended Accounting Standards and Interpretations but does not expect it to have a significant impact on the Group's results.

Significant Judgements and Estimates

The preparation of financial statements requires the use of certain critical accounting estimates. It also requires management to exercise its judgement in the process of applying the consolidated entity's accounting policies. The areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the financial statements are disclosed in Note 2.

(c) Comparatives

The comparative period is 1 July 2019 to 30 June 2020.

(d) Principles of Consolidation

Subsidiaries

The consolidated financial statements incorporate the assets and liabilities of all subsidiaries of Vulcan Energy Resources Limited ('Company' or 'parent entity') as at 30 June 2021 and the results of all subsidiaries for the year then ended.

Subsidiaries are all entities (including special purpose entities) over which the consolidated entity has the power to govern the financial and operating policies, generally accompanying a shareholding of more than one-half of the voting rights. The existence and effect of potential voting rights that are currently exercisable or convertible are considered when assessing whether the consolidated entity controls another entity.

Subsidiaries are fully consolidated from the date on which control is transferred to the consolidated entity. They are de-consolidated from the date that control ceases.

Intercompany transactions, balances and unrealised gains on transactions between consolidated entity companies are eliminated. Unrealised losses are also eliminated unless the transaction provides evidence of the impairment of the asset transferred. Accounting policies of subsidiaries have been changed where necessary to ensure consistency with the policies adopted by the consolidated entity.

The acquisition method of accounting is used to account for business combinations by the consolidated entity. A change in ownership interest, without the loss of control, is accounted for as an equity transaction, where the difference between the consideration transferred and the book value of the share of the non-controlling interest acquired is recognised directly in equity attributable to the parent.

Non-controlling interests in the results and equity of subsidiaries are shown separately in the consolidated statement of profit or loss and other comprehensive income, statement of changes in equity and statement of financial position respectively.

(e) Foreign Currency Translation

Functional and presentation currency

Items included in the financial statements of each of the consolidated entity's entities are measured using the currency of the primary economic environment in which the entity operates ("functional currency"). The consolidated financial statements are presented in Australian dollars, which is Vulcan Energy Resources Limited's functional and presentation currency.

Transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at period end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in profit or loss.

(f) Asset Acquisition not constituting a Business

When an asset acquisition does not constitute a business combination, the assets and liabilities are assigned a carrying amount based on their relative fair values in an asset purchase transaction and no deferred tax will arise in relation to the acquired assets and assumed liabilities as the initial recognition exemption for deferred tax under AASB 112 applies. No goodwill will arise on the acquisition and transaction costs of the acquisition will be included in the capitalised cost of the asset.

(g) Dividends

Dividends are recognised when declared during the financial period and no longer at the discretion of the Company.

The preparation of the financial statements requires management to make judgements, estimates and assumptions that affect the reported amounts in the financial statements. Management continually evaluates its judgements and estimates in relation to assets, liabilities, contingent liabilities, revenue and expenses.

Management bases its judgements, estimates and assumptions on historical experience and on other various factors, including expectations of future events, management believes to be reasonable under the circumstances. The resulting accounting judgements and estimates will seldom equal the related actual results. The judgements, estimates and assumptions in these financial statements that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial period are disclosed below.

Coronavirus (COVID-19) pandemic

Judgement has been exercised in considering the impacts that the Coronavirus (COVID-19) pandemic has had, or may have, on the consolidated entity based on known information. This consideration extends to the nature of the products and services offered, customers, supply chain, staffing and geographic regions in which the consolidated entity operates. Other than as addressed in specific notes, there does not currently appear to be either any significant impact upon the financial statements or any significant uncertainties with respect to events or conditions which may impact the consolidated entity unfavourably as at the reporting date or subsequently as a result of the Coronavirus (COVID-19) pandemic.

Exploration and evaluation expenditure

Exploration and evaluation costs have been capitalised on the basis that activities in the area have not yet reached a stage that permits reasonable assessment of the existence of economically recoverable reserves. Key judgements are applied in considering costs to be capitalised which includes determining expenditures directly related to these activities and allocating overheads between those that are expensed and capitalised.

Share-based payments

The Group measures the cost of equity settled transactions with Directors, employees and consultants, where applicable, by reference to the fair value of equity instruments at the date at which they are granted. The fair value is determined using an appropriate valuation model taking into account the terms and conditions upon which the instruments were granted. The accounting estimates and assumptions relating to equity-settled share-based payments would have no impact on the carrying amounts of assets and liabilities within the next annual reporting period but may impact profit or loss and equity.

Estimation of useful lives of assets

The consolidated entity determines the estimated useful lives and related depreciation and amortisation charges for its plant and equipment. The useful lives could change significantly as a result of technical innovations or some other event. The depreciation and amortisation charge will increase where the useful lives are less than previously estimated lives, or technically obsolete or non-strategic assets that have been abandoned or sold will be written off or written down.

NOTE 3 SEGMENT INFORMATION

Operating segments are reported in a manner consistent with the internal reporting provided to the chief operating decision makers. The chief operating decision makers, who are responsible for allocating resources and assessing performance of the operating segments, have been identified as the Board of Directors.

For the financial years ended 30 June 2020 and 30 June 2021 and following the acquisition of a 100% interest in the Vulcan Lithium Project in the Upper Rhine Valley of Germany on 4 September 2019, it was determined that the Group operates in three operating segments being, energy metals exploration in Germany, copper and zinc mineral exploration in Norway and resources allocated to administration. This is the basis in which internal reports are provided to the Directors for assessing performance and determining the allocation of resources within the Group.

For the year ended 30 June 2021

Segment performance	Exploration Germany	Exploration Norway	Administration	Total
30 June 2021	\$	\$	\$	\$
Revenue				
Interest income	-	-	120,663	120,663
Other income	327,380	-	183,499	510,879
Total segment revenue	327,380	-	304,162	631,542

Reconciliation of segment results to net loss before tax

Amounts not included in segment results but reviewed by the Board

- Administration, consulting and other expenses (11,376,156)

Net loss before tax from continuing operations (10,744,614)

Segment assets	Exploration Germany	Exploration Norway	Administration	Total
30 June 2021	\$	\$	\$	\$
Total segment asset	16,504,072	388,045	114,851,961	131,744,078

For the year ended 30 June 2020

Segment performance	Exploration Germany	Exploration Norway	Administration	Total
30 June 2020	\$	\$	\$	\$
Revenue				
Interest income	-	-	45,342	45,342
Other income	-	-	50,000	50,000
Total segment revenue	-	-	95,342	95,342

Reconciliation of segment results to net loss before tax

Amounts not included in segment results but reviewed by the Board

- Administration, consulting and other expenses	(3,648,701)
Net loss before tax from continuing operations	(3,553,359)

Segment assets	Exploration Germany	Exploration Norway	Administration	Total
30 June 2020	\$	\$	\$	\$
Total segment asset	2,279,731	290,602	6,537,628	9,107,961

Segment liabilities	Exploration Germany	Exploration Norway	Administration	Total
30 June 2020	\$	\$	\$	\$
Total segment liabilities	30,984	668	190,270	221,922

Accounting Policy

Segment Reporting

Operating segments are reported in a manner consistent with the internal reporting provided to the chief operating decision maker. The chief operating decision maker, who is responsible for allocating resources and assessing performance of the operating segments, has been identified as the Board. Management has determined that based on the report reviewed by the Board and used to make strategic decisions, that the consolidated entity has one reportable segment.

NOTE 4 REVENUE

	2021	2020
	\$	\$
Other income		
Interest income	120,678	45,342
Cash Boost	50,000	50,000
R&D tax incentive	133,484	-
InnoEnergy Funding	327,380	-
	631,542	95,342

NOTE 5 EXPENSES

	2021	2020
	\$	\$
(a) Administration expenses		
Accounting, audit and company secretarial fees	103,559	151,336
Travel expenses	51,926	107,183
General expenses	732,660	62,401
	<u>888,145</u>	<u>320,920</u>
(b) Consultancy and legal expenses		
Corporate advisory fees	87,456	105,000
Consulting fees	1,054,926	314,961
Legal fees	780,390	4,642
	<u>1,922,772</u>	<u>424,603</u>

NOTE 6 INCOME TAX

	2021	2020
	\$	\$
(a) The components of tax expense comprise:		
Current tax	-	-
Deferred tax	-	-
Income tax expense reported in the of profit or loss and other comprehensive income	<u>-</u>	<u>-</u>
(b) The prima facie tax on loss from ordinary activities before income tax is reconciled to the income tax as follows:		
Loss before income tax expense	<u>(10,744,614)</u>	<u>(3,553,359)</u>
Prima facie tax benefit on loss before income tax at 30% (2020: 30%)	(3,223,384)	(1,066,008)
Tax effect of amounts that are not deductible/taxable in calculating taxable income		
Non-deductible expense	2,271,803	603,944
Tax losses and temporary differences not brought to account	797,865	451,694
Foreign corporate rate differential	153,716	10,370
Income tax expense	<u>-</u>	<u>-</u>
(c) Deferred tax assets/(liabilities) not brought to accounts are:		
Accruals	93,062	26,411
Prepayments	(21,970)	(5,743)
Other	65,140	20,042
Tax losses	1,050,391	606,194
Total deferred tax balances not brought to account	<u>1,186,623</u>	<u>646,904</u>

Potential deferred tax assets attributable to tax losses and other temporary differences have not been brought to account at 30 June 2021 because the directors do not believe it is appropriate to regard realisation of the deferred tax assets as probable at this point in time. These benefits will only be obtained if:

- the Company derives future assessable income of a nature and of an amount sufficient to enable the benefit from the deductions for the expenditure to be realised; and
- no changes in tax legislation adversely affect the Company in realising the benefit from the deductions for the expenditure.

Accounting Policy

The income tax expense (revenue) for the year comprises current income tax expense (income) and deferred tax expense (income).

Current Tax

Current income tax expense charged to the profit or loss is the tax payable on taxable income calculated using applicable income tax rates enacted, or substantially enacted, as at the end of the reporting period. Current tax liabilities (assets) are therefore measured at the amounts expected to be paid to (recovered from) the relevant taxation authority.

Deferred Tax

Deferred tax expense reflects movements in deferred tax asset and deferred tax liability balances during the year as well as unused tax losses.

Current and deferred income tax expense (income) is charged or credited directly to equity instead of the profit or loss when the tax relates to items that are credited or charged directly to equity.

Deferred tax assets and liabilities are ascertained based on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the financial statements. Deferred tax assets also result where amounts have been fully expensed but future tax deductions are available. No deferred income tax will be recognised from the initial recognition of an asset or liability, excluding a business combination, where there is no effect on accounting or taxable profit or loss.

Deferred tax assets and liabilities are calculated at the tax rates that are expected to apply to the period when the asset is realised or the liability is settled, based on tax rates enacted or substantively enacted at the end of the reporting period. Their measurement also reflects the manner in which management expects to recover or settle the carrying amount of the related asset or liability.

Deferred tax assets relating to temporary differences and unused tax losses are recognised only to the extent that it is probable that future taxable profit will be available against which the benefits of the deferred tax asset can be utilised.

Where temporary differences exist in relation to investments in subsidiaries, branches, associates, and joint ventures, deferred tax assets and liabilities are not recognised where the timing of the reversal of the temporary difference can be controlled and it is not probable that the reversal will occur in the foreseeable future.

Current tax assets and liabilities are offset where a legally enforceable right of set-off exists and it is intended that net settlement or simultaneous realisation and settlement of the respective asset and liability will occur. Deferred tax assets and liabilities are offset where a legally enforceable right of set-off exists, the deferred tax assets and liabilities relate to income taxes levied by the same taxation authority on either the same taxable entity or different taxable entities where it is intended that net settlement or simultaneous realisation and settlement of the respective asset and liability will occur in future periods in which significant amounts of deferred tax assets or liabilities are expected to be recovered or settled.

NOTE 7 LOSS PER SHARE

	2021	2020
	\$	\$
Net loss for the year	(10,744,614)	(3,553,359)
Weighted average number of ordinary shares for basic and diluted loss per share.	87,204,203	48,226,596
Basic and diluted loss per share (cents)	(12.32)	(7.37)

Accounting Policy**Basic Loss Per Share**

Basic loss per share is determined by dividing net profit or loss after income tax attributable to members of the Company, excluding any costs of servicing equity other than ordinary shares, by the weighted average number of ordinary shares outstanding during the financial year, adjusted for bonus elements in ordinary shares issued during the year.

Diluted Loss Per Share

Diluted loss per share adjusts the figures used in the determination of basic earnings per share to take into account the after-income tax effect of interest and other financing costs associated with dilutive potential ordinary shares and the weighted average number of shares assumed to have been issued for no consideration in relation to dilutive potential ordinary shares.

NOTE 8 CASH AND CASH EQUIVALENTS

	2021	2020
	\$	\$
Cash at bank and in hand	6,156,871	4,621,557
Short-term deposits	108,548,994	1,800,000
	<u>114,705,865</u>	<u>6,421,557</u>

(a) Reconciliation of net loss after tax to net cash flows from operations

Loss for the financial year	(10,744,614)	(3,553,359)
<i>Adjustments for:</i>		
Share-based payments expense	6,857,484	2,040,473
Impairment expense	228,663	286,017
Depreciation	131,522	-
<i>Changes in assets and liabilities</i>		
Trade and other receivables	(113,154)	(81,008)
Trade and other payables	725,069	(24,172)
Provisions	73,884	-
Net cash used in operating activities	<u>(2,841,146)</u>	<u>(1,332,049)</u>

Accounting Policy

Cash at bank earns interest at floating rates based on daily deposit rates. Short-term deposits are made in varying periods between one day and three months, depending on the immediate cash requirements of the Group and earn interest at the respective short-term deposit rates.

NOTE 9 TRADE AND RECEIVABLES

	2021	2020
	\$	\$
GST receivable	23,479	47,049
Other receivables	182,124	17,592
VAT receivable	573,384	51,430
Other deposits	418,513	-
	1,197,500	116,071

Allowance for impairment loss

Other receivables are non-interesting bearing and are generally on terms of 30 days.

Trade Receivables

Trade and other receivables include amounts due from customers for goods sold and services performed in the ordinary course of business. Receivables expected to be collected within 12 months of the end of the reporting period are classified as current assets. All other receivables are classified as non-current assets. Refer to Note 1 for expected credit loss allowance assessment.

Goods and Services Tax ('GST')

Revenues, expenses and assets are recognised net of the amount of GST, except where the amount of GST incurred is not recoverable from the Australian Taxation Office. In these circumstances, the GST is recognised as part of the cost of acquisition of the asset or part of the expense.

Receivables and payables are stated inclusive of the amount of GST receivable or payable. The net amount of GST recoverable from, or payable to, the taxation authority is included as a current asset or liability in the Consolidated statement of financial position.

Cash flows are presented in the statement of cash flows on a gross basis, except for the GST on investing and financial activities, which are disclosed as operating cash flows.

Other Receivables

Other receivables are recognised at amortised cost, less any provision for expected credit loss. Other receivables do not contain impaired assets and are not past due. Based on the credit history, it is expected that these other balances will be received when due.

Value Added Tax ("VAT")

Revenues expenses and assets are recognised net of VAT, except where the amount of VAT incurred is not recoverable from the German tax authority. In these circumstances the VAT is recognised as part of the cost of acquisition or parts of the expense. Receivables and payables are stated inclusive of the amount of VAT receivable or payable. The net amount of VAT recoverable from, or payable to, the taxation authority is included as a current asset or liability in the Consolidated statement of financial position. Cash flows are presented in the statement of cash flows on a gross basis, except for the VAT on investing and financial activities, which are disclosed as operating cash flows.

Other Deposits

Other deposits represent an unconditional performance bond.

NOTE 10 EXPLORATION AND EVALUATION EXPENDITURE

	2021	2020
	\$	\$
Carrying amount of exploration and evaluation expenditure	13,793,798	2,556,980
At the beginning of the year	2,556,980	526,001
Exploration expenditure incurred	5,670,681	1,195,871
Vulcan Energy Europe acquisition (1)	5,794,800	1,121,125
Impairment expense	(228,663)	(286,017)
At the end of the year	13,793,798	2,556,980

(1) – - During the 2020/2021 period, the Company issued 1,320,000 shares to various parties involved in introducing the Zero Carbon Lithium Project™ ('Project') in Germany, through the acquisition of Vulcan Energy Resources Europe Pty Ltd, as initially announced on 10 July 2019. The issue of these shares remained subject to shareholder approval and meeting certain milestones. On 21 February 2020, the Company reached Milestone 1 by announcing a positive scoping study in relation to the Project. On 15 January 2021, the Company also reached Milestone 2 by announcing a positive pre-feasibility study in relation to the Project. The Company obtained shareholder approval for the issue of the Milestone 1 shares (being 660,000 shares) and Milestone 2 shares (being 660,000 shares) on 10 September 2020 and 24 June 2021 respectively. The issue of these shares were valued at \$587,400 and \$5,207,400 respectively (refer to Note 15).

Accounting Policy

Acquisition, exploration and evaluation costs associated with mining tenements are accumulated in respect of each identifiable area of interest. These costs are only carried forward to the extent that the rights of tenure to that area of interest are current and that the costs are expected to be recouped through the successful commercial development or sale of the area or where activities in the area have not yet reached a stage that permits reasonable assessment of the existence of economically recoverable reserves.

Costs in relation to an abandoned area are written off in full against profit in the period in which the decision to abandon the area is made.

Each area of interest is also reviewed annually, and acquisition costs written off to the extent that they will not be recoverable in the future.

11 PLANT AND EQUIPMENT

	2021	2020
	\$	\$
Software	173,188	13,353
Plant & Equipment	564,447	-
Assets under Construction	743,037	-
	<u>1,480,672</u>	<u>13,353</u>

Movement in carrying amounts of plant and equipment for year ended 30 June 2021

	Software	Plant & Equipment	Assets under construction	Total
	\$	\$	\$	\$
Balance at 1 July 2020	13,353	-	-	13,353
				-
Additions	164,136	662,135	743,037	1,569,308
Depreciation	(4,301)	(97,688)	-	(101,989)
Balance at 30 June 2021	<u>173,188</u>	<u>564,447</u>	<u>743,037</u>	<u>1,480,672</u>

Movement in carrying amounts of plant and equipment for year ended 30 June 2020

	Software	Plant & Equipment	Assets under construction	Total
	\$	\$	\$	\$
Balance at 1 July 2019	-	-	-	-
Additions	13,353	-	-	13,353
Depreciation	-	-	-	-
Balance at 30 June 2021	<u>13,353</u>	<u>-</u>	<u>-</u>	<u>13,353</u>

Accounting Policy

Plant and equipment is stated at historical cost less accumulated depreciation and impairment. Historical cost includes expenditure that is directly attributable to the acquisition of the items

Once assets are available for use, depreciation is calculated using the straight-line method to allocate asset costs over their estimated useful lives, as follows:

Software	3 -5 years
Plant & Equipment	2-15 years

The assets' residual values and useful lives are reviewed, and adjusted if appropriate, at each balance date. An asset's carrying amount is written down immediately to its recoverable amount if the asset's carrying amount is greater than its estimated recoverable amount.

NOTE 12 LEASES

Right-of-use asset	Office space	Vehicles	Total
Cost			
At 1 July 2020	-	-	-
Additions	528,584	60,011	588,595
At 30 June 2021	528,584	60,011	588,595
Accumulated Depreciation			
At 1 July 2020	-	-	-
Depreciation for the year	16,348	6,001	22,349
	16,348	6,001	22,349
Carrying amount			
At 1 July 2020	-	-	-
At 30 June 2021	512,236	54,010	566,246
Lease Liabilities			
At 1 July 2020	-	-	-
New lease liabilities entered during the period	528,584	60,011	588,595
Add: Interest	5,242	1,510	6,752
Less: Payment	(18,513)	(17,898)	(36,411)
Closing Balance	515,313	43,623	558,936
Represented by:			
Current lease liabilities	54,429	7,960	62,389
Non-current lease liabilities	460,884	35,663	496,547
	515,313	43,623	558,936

Accounting Policy**Right-of-use assets:**

A right-of-use asset is recognised at the commencement date of a lease. The right-of-use asset is measured at cost, which comprises the initial amount of the lease liability, adjusted for, as applicable, any lease payments made at or before the commencement date net of any lease incentives received, any initial direct costs incurred, and, except where included in the cost of inventories, an estimate of costs expected to be incurred for dismantling and removing the underlying asset, and restoring the site or asset.

Right-of-use assets are depreciated on a straight-line basis over the unexpired period of the lease or the estimated useful life of the asset, whichever is the shorter. Where the consolidated entity expects to obtain ownership of the leased asset at the end of the lease term, the depreciation is over its estimated useful life. Right-of use assets are subject to impairment or adjusted for any remeasurement of lease liabilities.

The consolidated entity has elected not to recognise a right-of-use asset and corresponding lease liability for short-term leases with terms of 12 months or less and leases of low-value assets. Lease payments on these assets are expensed to profit or loss as incurred.

Lease liabilities

A lease liability is recognised at the commencement date of a lease. The lease liability is initially recognised at the present value of the lease payments to be made over the term of the lease, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the consolidated entity's incremental borrowing rate. Lease payments comprise of fixed payments less any lease incentives receivable, variable lease payments that depend on an index or a rate,

amounts expected to be paid under residual value guarantees, exercise price of a purchase option when the exercise of the option is reasonably certain to occur, and any anticipated termination penalties. The variable lease payments that do not depend on an index or a rate are expensed in the period in which they are incurred.

Lease liabilities are measured at amortised cost using the effective interest method. The carrying amounts are remeasured if there is a change in the following: future lease payments arising from a change in an index or a rate used; residual guarantee; lease term; certainty of a purchase option and termination penalties. When a lease liability is remeasured, an adjustment is made to the corresponding right-of use asset, or to profit or loss if the carrying amount of the right-of-use asset is fully written down.

The Group leases office space and vehicles through its German subsidiary Vulcan Energie Ressourcen GmbH .

NOTE 13 TRADE AND OTHER PAYABLES

(i) Trade payables are non-interest bearing and are normally settled on 30-day terms.

Due to the short-term nature of these payables, their carrying value is assumed to be the same as their fair value.

Accounting Policy

Trade payables and other payables represent liabilities for goods and services provided to the Group prior to the end of the financial year which are unpaid. The amounts are unsecured and are usually paid within 30 days of recognition.

NOTE 14 PROVISION

	2021	2020
	\$	\$
Annual leave provision	87,584	13,700
	87,584	13,700

Accounting Policy

Provisions

Provisions are recognised when the consolidated entity has a present (legal or constructive) obligation as a result of a past event, it is probable the consolidated entity will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation. The amount recognised as a provision is the best estimate of the consideration required to settle the present obligation at the reporting date, taking into account the risks and uncertainties surrounding the obligation. If the time value of money is material, provisions are discounted using a current pre-tax rate specific to the liability. The increase in the provision resulting from the passage of time is recognised as a finance cost.

NOTE 15 CONTRIBUTED EQUITY

(a) Issued and fully paid	2021		2020	
	No.	\$	No.	\$
Ordinary shares	108,422,717	136,500,373	67,217,555	11,836,741

Ordinary shares entitle the holder to participate in the dividends and the proceeds on winding up in proportion to the number of and amounts paid on the shares held.

At shareholders meetings, each ordinary share is entitled to one vote when a poll is called, otherwise each shareholder has one vote on a show of hands.

(b) Movement reconciliation

	Date	Number	Issue Price	\$
At 1 July 2019		31,750,001		4,746,416
Placement to sophisticated investors	10/07/2019	2,820,000	0.15	423,000
Placement to sophisticated investors	19/07/2019	3,513,334	0.15	527,000
Shares issued for services rendered	5/08/2019	1,000,000	0.20	200,000
Shares to Vendors and Introducers as part of consideration for the Acquisition	4/09/2019	7,666,667	0.15	1,150,000
Shares issued to Director to incentive performance and retain services	4/09/2019	750,000	0.15	112,500
Share issue to Director for participation in Placement	4/09/2019	1,000,000	0.15	150,000
Less Capital raising costs		-	-	(58,425)
Conversion of Class A performance shares and Class D performance rights	28/02/2020	5,170,000	-	-
Conversion of Class A performance rights	30/06/2020	800,000	-	-
Conversion of Class A performance shares	30/06/2020	480,000	-	-
Conversion of listed options	30/06/2020	267,753	0.29	76,310
Placement to sophisticated investors	30/06/2020	12,000,000	0.40	4,800,000
Less Capital raising costs	30/06/2020	-	-	(290,060)
At 30 June 2020		67,217,755		11,836,741
At 1 July 2020		67,217,755		11,836,741
Shares issued in lieu of cash fees for services rendered	6/10/2020	400,000	0.85	340,000
Conversion of Listed Options	2/7/2020 - 17/12/2020	8,930,765	0.29	2,545,268
Conversion of Unlisted Options	15/10/2020-26/11/2020	1,125,250	0.80	900,200
Conversion of Class B Performance Rights	16/09/2020	500,000	-	-
Introducer shares	16/09/2020	660,000	0.89	587,400
Shares issued to Director	27/11/2020	100,000	2.38	238,000

Conversion of Class B Performance Shares	15/01/2021	4,400,000	-	-
Conversion of Class E & K Performance Rights	15/01/2021	2,250,000	-	-
Conversion of Listed Options	20/12/2020-			
	20/01/2021	3,457,409	0.29	985,362
Placement	6/02/2021	18,423,077	6.50	119,750,001
Conversion of Class H Performance shares	11/05/2021	260,000	-	-
Less capital raising costs		-	-	(6,139,997)
Placement to Director	30/06/2021	38,461	6.50	249,997
Introducer shares	30/06/2021	660,000	7.89	5,207,400
At 30 June 2021		108,422,717		136,500,372

Accounting Policy

Ordinary shares are classified as equity.

Incremental costs directly attributable to the issue of new shares or options are shown in equity as a deduction, net of tax, from the proceeds. Incremental costs directly attributable to the issue of new shares or options for the acquisition of a business are not included in the cost of the acquisition as part of the purchase consideration.

If the entity reacquires its own equity instruments, for example, as a result of a share buy-back, those instruments are deducted from equity and the associated shares are cancelled. No gain or loss is recognised in the profit or loss and the consideration paid including any directly attributable incremental costs (net of income taxes) is recognised directly in equity.

NOTE 16 RESERVES

	2021	2020
	\$	\$
Share-based payment reserve	8,021,470	1,741,986
Foreign currency translation reserve	(122,009)	(22,016)
Total	<u>7,899,461</u>	<u>1,719,970</u>

	Number of Warrants	Number of Listed options	Number of Unlisted Options	Number of Performance Shares	Number of Performance Rights	\$
<u>Movement reconciliation</u>						
On issue at 1 July 2019	-	12,687,512	-	-	3,900,000	164,013
Issue of performance rights during the year	-	-	-	-	5,000,000	-
Recognition of share-based payment expense for performance rights issued to Directors and staff (Note 19)	-	-	-	-	-	689,625
Performance share issued during the year	-	-	-	13,200,000	-	-
Recognition of share-based payment expense for performance shares issued to Vendors on Acquisition (Note 19)	-	-	-	-	-	888,348
Performance rights cancelled during the year	-	-	-	-	(2,600,000)	-
Exercise of performance rights during the year	-	-	-	-	(2,050,000)	-
Exercise of performance shares during the year	-	-	-	(4,400,000)	-	-
Exercise of listed options during the year	-	(267,753)	-	-	-	-
On issue at 30 June 2020	-	12,419,759	-	8,800,000	4,250,000	1,741,986

	Number of Warrants	Number of Listed options	Number of Unlisted Options	Number of Performance Shares	Number of Performance Rights	\$
Movement reconciliation						
On issue at 1 July 2020	-	12,419,759	-	8,800,000	4,250,000	1,741,986
Issue of performance rights during the year	-	-	-	-	10,248,688	-
Recognition of share - based payment expense for performance rights issued to Directors, staff & consultants (Note 19)	-	-	-	-	-	4,419,668
Performance rights cancelled during the year	-	-	-	-	(250,000)	-
Recognition of share - based payment expense for performance rights issued to Vendors on Acquisition (Note 19)	-	-	-	-	-	752,017
Issue of unlisted options during the year	-	-	1,112,250	-	-	-
Exercise of unlisted options during the year	-	-	(1,112,250)	-	-	-
Recognition of share based payment expense for unlisted options issued (Note 19)	-	-	-	-	-	369,757
Exercise of listed options during the year	-	(12,388,174)	-	-	-	-
Listed options expired during the year	-	(31,585)	-	-	-	-
Exercise of Performance rights during the year	-	-	-	-	(3,010,000)	-
Warrants issued during the year	512,447	-	-	-	-	-
Recognition of shared based payment expense for warrants issued during the year	-	-	-	-	-	373,836
Exercise of Performance Shares during the year	-	-	-	(4,400,000)	-	-
Recognition of shared based payment expense for performance rights issued to Directors & staff in prior periods (Note 19)	-	-	-	-	-	364,206
On issue at 30 June 2021	512,447	-	-	4,400,000	11,238,688	8,021,470

The option reserve is used to record the value of share-based payments provided to outside parties, and share-based remuneration provided to employees and directors.

	2021	2020
	\$	\$
Foreign Currency Translation Reserve		
Balance at the beginning of the year	(22,016)	-
Movement during the year	(99,993)	(22,016)
Balance at the end of the year	(122,009)	(22,016)

NOTE 17 ACQUISITION OF SUBSIDIARY

On 4 September 2019, the Company successfully completed its acquisition of 100% of the issued capital of Vulcan Energy Resources Europe Pty Ltd ("the Vulcan Lithium Project"). The acquisition was assessed as an asset acquisition rather than a business combination. The Company issued 6,666,667 fully paid ordinary shares in the Company to the Vendors, Dr Wedin and Dr Horst Kreuter to acquire the asset.

	4 September 2019
	\$
Fair value of shares issued	1,000,000
Purchase consideration	1,000,000

Fair value of net assets acquired are as follows:

Cash and cash equivalents		404
Exploration and evaluation expenditure	Note 10	1,121,125
Trade and other payables		(121,529)
		1,000,000

NOTE 18 FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES

The Group's activities expose it to a variety of financial risks: market risk (including foreign exchange risk and interest rate risk), credit risk and liquidity risk. The Group's overall risk management programme focuses on the unpredictability of the financial markets and seeks to minimise potential adverse effects on the financial performance of the Group. The Group uses different methods to measure and manage different types of risks to which it is exposed.

These include monitoring levels of exposure to interest rate and foreign exchange risk and assessments of market forecasts for interest rate and foreign exchange prices. Ageing analysis and monitoring of specific credit allowances are undertaken to manage credit risk. Liquidity risk is monitored through the development of future cash flow forecasts.

Risk management is carried out by Management and overseen by the Board of Directors with assistance from suitably qualified external advisors.

The main risks arising for the Group are foreign exchange risk, interest rate risk, credit risk and liquidity risk. The Board reviews and agrees policies for managing each of these risks and they are summarised below.

The carrying values of the Group's financial instruments are as follows:

	2021	2020
	\$	\$
Financial Assets		
Cash and cash equivalents	114,705,865	6,421,557

Trade and other receivables	1,197,500	116,071
	<u>115,903,365</u>	<u>6,537,628</u>
Financial Liabilities		
Trade and other payables	2,113,016	221,922
Lease liabilities	558,936	-
	<u>2,671,952</u>	<u>221,922</u>

(a) Market risk

(i) Foreign exchange risk

The Group's exposure to foreign currency risk at the end of the reporting period, expressed in Australian dollar, was as follows:

	30 June 2021		30 June 2020	
	AUD	EUR	AUD	EUR
Other Receivables	146,099	1,051,401	66,118	49,953
Trade Payables	(615,398)	(827,581)	(85,903)	(1,510)
Other Payables	(348,052)	(968,503)	(105,035)	(30,984)
	<u>(817,351)</u>	<u>(744,683)</u>	<u>(124,820)</u>	<u>17,459</u>

The aggregate net foreign exchange gains/losses recognised in the P&L were:

	2021	2020
Net foreign exchange gains/losses recognised in the P&L were:	76,042	(7,167)

Sensitivity

As shown in the table above, the group is primarily exposed to changes in EUR/AUD exchange rates. The sensitivity of profit or loss to changes in the exchange rates is:

	Impact on post-tax profit	
	2021	2020
	\$	\$
EUR/AUD exchange rate - increase 10% (2020 -10%)*	65,637	6,651
EUR/AUD exchange rate - decrease 10% (2020 -10%)*	(80,222)	(8,128)
*Holding all other variables constant	-	

(ii) Interest rate risk

The Group is exposed to interest rate risk, which is the risk that a financial instrument's value will fluctuate as a result of changes in the market interest rates on interest bearing financial instruments. The Group's exposure to this risk relates primarily to the Group's cash and any cash on deposit. The Group does not use derivatives to mitigate these exposures. The Group manages its exposure to interest rate risk by holding certain amounts of cash in fixed and floating interest rate facilities. At the reporting date, the interest rate profile of the Group's interest-bearing financial instruments was:

	2021		2020	
	Weighted average interest rate	Balance \$	Weighted average interest rate	Balance \$
Cash and cash equivalents	0.23%	114,705,865	0.08%	6,421,557

Sensitivity

Within the analysis, consideration is given to potential renewals of existing positions and the mix of fixed and variable interest rates. The following sensitivity analysis is based on the interest rate risk exposures in existence at the reporting date. The 1% increase and 1% decrease in rates is based on reasonably expected possible changes over a financial year.

At 30 June 2021, if interest rates had moved, as illustrated in the table below, with all other variables held constant, losses and equity would have been affected as follows:

<i>Judgements of reasonably possible movements:</i>	Profit higher/(lower) 2021 \$	Profit higher/(lower) 2020 \$
+ 1.0% (100 basis points)	1,147,059	64,216
- 1.0% (100 basis points)	(1,147,059)	(64,216)

(b) Credit risk

Credit risk arises from the financial assets of the Group, which comprise cash and cash equivalents, trade and other receivables and other financial assets. The Group's exposure to credit risk arises from potential default of the counterparty, with maximum exposure equal to the carrying amount of the financial assets.

The Group's policy is to trade only with recognised, creditworthy third parties. It is the Group's policy that all customers who wish to trade on credit terms will be subject to credit verification procedures.

In addition, receivable balances are monitored on an ongoing basis with the result that the Group's exposure to bad debts is not significant. There are no significant concentrations of credit risk within the Group except for cash and cash equivalents.

(c) Liquidity risk

Liquidity risk is the risk that the Group will not be able to meet its financial obligations as they fall due. The Group's approach to managing liquidity is to ensure, as far as possible, that it will always have sufficient liquidity to meet its liabilities when due, under both normal and stressed conditions, without incurring unacceptable losses or risking damage to its reputation.

The Group manages liquidity risk by maintaining adequate cash reserves from funds raised in the market and by continuously monitoring forecast and actual cash flows. The Group does not have any external borrowings.

The following are the contractual maturities of financial liabilities:

	1 year or less \$	1-5 years \$	> 5 years \$	Total \$
2021				
Trade and other payables	2,113,014	-	-	2,113,014
Lease Liabilities	62,389	283,267	213,280	558,936
2020				
Trade and other payables	221,922	-	-	221,922

(d) Capital risk management.

The Group's objectives when managing capital are to:

Safeguard their ability to continue as a going concern, so that it can continue to provide returns for shareholders and benefits for other stakeholders; and

Maintain an optimal capital structure to reduce the cost of capital.

In order to maintain or adjust the capital structure, the Group may adjust the number of dividends paid to shareholders, return capital to shareholders, issue new shares or sell assets to reduce debt.

Given the stage of the Company's development there are no formal targets set for return on capital. The Company is not subject to externally imposed capital requirements. The net equity of the Company is equivalent to capital. Net capital is obtained through capital raisings on the Australian Securities Exchange ("ASX").

NOTE 19 SHARE-BASED PAYMENTS

	2021	2020
	\$	\$
Recognised share-based payment transactions		
Performance rights issued to Directors, staff and consultants (i)	4,419,668	-
Performance rights issued to Directors & staff in prior periods (ii)	364,206	689,626
Performance shares issued to Vendors of Acquisition (iii)	752,017	888,348
Shares issued for consideration of services	340,000	462,500
Shares issued to Director	238,000	-
Warrants (iv)	373,836	-
Unlisted Options (v)	369,757	-
Shares issued to Introducers of Acquisition (Note 10)	5,794,800	-
	12,652,284	2,040,473

Represented by

Shared-based payment expense	6,517,484	1,690,473
Investor relations expense	340,000	200,000
Introducer fee	-	150,000
Capitalised exploration assets (Note 10)	5,794,800	-
	12,652,284	2,040,473

- (i) The Company issued the total of 10,248,688 performance rights during the year to the Directors, staff and consultants to align their interests to that of the Company's shareholders and assist as an effective means of retaining staff.

Based on management assessment, a percentage of a share-based payment expense has been recognised in the Statement of Profit or Loss and Other Comprehensive Income.

Details of Performance Rights granted during the year are:

	Fair value of each right	Expected volatility	Grant date	Price at grant date (\$)	Expiry date	Vesting hurdle (5-day VWAP)	Interest rate	Number of Rights	Total value of Rights (\$)	Share based payment expense (\$)
Class H	\$1.05 & \$0.90	N/A	11/9/2020 & 15/9/2020	1.05 & 0.90	1/12/2023	N/A	N/A	250,000 & 250,000	487,500	487,500

	Fair value of each right	Expected volatility	Grant date	Price at grant date (\$)	Expiry date	Vesting hurdle (5-day VWAP)	Interest rate	Number of Rights	Total value of Rights (\$)	Share based payment expense (\$)
Class H	\$2.38	N/A	25/11/2020	2.38	1/12/2023	N/A	N/A	250,000	595,000	595,000
Class I	\$1.05 & \$0.90	N/A	11/9/2020 & 15/9/2020	1.05 & 0.90	1/12/2023	N/A	N/A	250,000 & 250,000	487,500	115,805
Class I	\$2.38	N/A	25/11/2020	2.38	1/12/2023	N/A	N/A	250,000	595,000	- (i)
Class J	\$0.57	70%	10/09/2020	0.89	16/09/2023	1.84	0.26%	2,500,000	1,422,500	264,991
Class K	\$0.72	70%	10/09/2020	0.89	16/09/2023	1.23	0.26%	1,000,000	720,000	720,000
Class L	\$0.61	70%	10/09/2020	0.89	16/09/2023	1.64	0.26%	1,000,000	614,000	130,719
Class M	\$0.89	N/A	10/09/2020	0.89	1/12/2023	N/A	N/A	1,500,000	1,335,000	1,335,000
Class N	0.89	N/A	10/09/2020	0.89	1/12/2023	N/A	N/A	1,500,000	1,335,000	506,350
Class P	\$0.9 & \$7.6	N/A	15/09/2020 & 29/06/2021	\$0.9 & \$7.6	1/12/2023	N/A	N/A	250,000 & 60,000	681,000	47,032
Class Q	\$2.38	N/A	25/11/2020	2.38	27/11/2021	N/A	N/A	100,000	238,000	140,725
Class R	\$2.38	N/A	25/11/2020	2.38	27/11/2022	N/A	N/A	100,000	238,000	70,555
Class S	\$7.80	N/A	24/06/2021	\$7.80	30/06/2025	N/A	N/A	38,688	301,766	3,031
Class T	\$7.60	N/A	29/06/2021	\$7.60	1/12/2024	N/A	N/A	250,000	1,900,000	1,139
Class U	\$7.60	N/A	29/06/2021	\$7.60	1/12/2024	N/A	N/A	250,000	1,900,000	1,063
Class V	\$7.60	N/A	29/06/2021	\$7.60	1/12/2024	N/A	N/A	100,000	760,000	456
Class W	\$7.60	N/A	29/06/2021	\$7.60	1/12/2024	N/A	N/A	100,000	760,000	302

(1) Class I has no share-based payment expense for the year due to performance rights lapsed in June 2021 following Dr Katherina Gerber resignation from the Company.

Details of Performance Rights vesting conditions:

Class H

- the Company announcing, on or before 18 May 2022, a positive Pre-Feasibility Study in relation to the Company's Zero Carbon Lithium Project™ confirming it is commercially viable.

Class I

- the Company announcing, on or before 18 May 2023, that it has secured either an off-take agreement representing a minimum of 30% of production volume over a three-year term, or a downstream lithium chemicals joint venture partner with a minimum of \$10,000,000 investment in relation to the Project.

Class J

- the Company announcing, within 36 months from the date of issue, a positive (JORC-Compliant) Definitive Feasibility Study in relation to the Project confirming it is commercially viable; and

- the VWAP for Shares as traded on ASX over 20 consecutive trading days is equal to or greater than 225% of the VWAP for Shares for the last 5 trading days up to but not including the date of the Meeting (the Reference Price).

Class K

- the Company announcing, within 36 months from the date of issue, a positive Pre-Feasibility Study in relation to the Company's Zero Carbon Lithium Project™ confirming it is commercially viable; and

- the VWAP for Shares as traded on ASX over 20 consecutive trading days is equal to or greater than 150% of the Reference Price.

Class L

- the Company announcing, within 36 months from the date of issue, that it has secured either an off-take agreement representing a minimum of 30% of production volume over a three-year term,

or a downstream lithium chemicals joint venture partner with a minimum of \$10,000,000 investment in relation to the Project; and

- the VWAP for Shares as traded on ASX over 20 consecutive trading days is equal to or greater than 200% of the Reference Price.

Class M

- the Company announcing, on or before 21 May 2021, a positive Pre-Feasibility Study in relation to the Company's Zero Carbon Lithium Project™ confirming it is commercially viable.

Class N

- the Company announcing, on or before 21 May 2022, that it has secured either an off-take agreement representing a minimum of 30% of production volume over a three-year term, or a downstream lithium chemicals joint venture partner with a minimum of \$10,000,000 investment in relation to the Project.

Class P

- the Company announcing before 31 December 2022 a positive Definitive Feasibility Study in relation to the Project confirming it is commercially viable.

Class Q

- Vesting on issue, and converting to shares on a one for one basis on the date that is 12 months from the date of issue.

Class R

- Vesting on issue, and converting to shares on a one for one basis on the date that is 24 months from the date of issue.

Class S

- one third vesting 12 months from the date of the 24 June 2021 General Meeting (EGM), one third vesting 24 months from EGM, one third vesting 36 months from EGM.

Class T

- the Company being issued a building permit for the first geothermal power plant or, in the case of a pure heating project with no electricity production, the transfer station, on or before the Expiry Date of 1st December 2024;

Class U

- the Company being issued a building permit for the first Direct Lithium Extraction system, on or before the Expiry Date of 1st December 2024.

Class V

- the Company being granted a permit according to BImSchG for the first lithium refinery, on or before the Expiry Date of 1st December 2024;

Class W

- the Company announcing commissioning of the first commercial lithium extraction plant, on or before the Expiry Date of 1st December 2024;

(ii) In the prior year, 5,000,000 performance rights were granted and issued as follows:

On 4 September 2019, the Company issued 3,750,000 performance rights to Mr Gavin Rezos as an incentive in connection with his appointment as Chairman.

On 18 May 2020, the Company issued 1,250,000 performance rights to staff as incentive in connection with their appointment.

3,900,000 performance rights were granted and issued to directors in prior periods. These were issued on 20 December 2018.

Based on management assessment, percentage of a share-based payment expense has been recognised in the Statement of Profit or Loss and Other Comprehensive Income.

Details of Performance Rights granted in prior years are:

Details of Performance Rights vesting conditions:

	Fair value of each right	Expected volatility	Grant date	Price at grant date (\$)	Expiry date	Vesting hurdle (5-day VWAP)	Interest rate	Number of Rights	Total value of Rights (\$)	Share based payment expense (\$)
Class A	\$0.1463	90%	30/11/2018	0.18	30/11/2021	0.4	0.0206	1,200,000	175,560	- (i)
Class B	\$0.1124	90%	30/11/2018	0.18	30/11/2021	0.75	0.0206	1,200,000	134,880	10,683
Class C	\$0.0906	90%	30/11/2018	0.18	30/11/2021	1.1	0.0206	1,500,000	135,900	- (ii)
Class D	\$0.15	N/A	4/09/2019	0.15	4/09/2020	N/A	N/A	1,250,000	187,500	- (i)
Class E	\$0.15	N/A	4/09/2019	0.15	4/09/2021	N/A	N/A	1,250,000	187,500	141,190
Class F	\$0.15	N/A	4/09/2019	0.15	4/09/2022	N/A	N/A	1,250,000	187,500	72,451
Class G	\$0.225	N/A	11/05/2020	0.225	1/12/2023	N/A	N/A	250,000	56,250	- (i)
Class H	\$0.225	N/A	11/05/2020 & 14/5/2020	0.225	1/12/2023	N/A	N/A	500,000	112,500	108,049
Class I	\$0.225	N/A	14/05/2020	0.225	1/12/2023	N/A	N/A	500,000	112,500	31,833

(1) Class A, D and G have no share-based payment expense for the year due to performance rights vested in the prior year.

(2) Class C has no share-based payment expense for the year due to performance rights cancelled in the prior year.

Class A

- Will vest if, at any time within 36 months following grant date of the Rights the VWAP of the Company's shares traded on the ASX over five (5) consecutive trading days is equal to or greater than \$0.40.

Class B

- Will vest if, at any time within 36 months following grant date of the Rights the VWAP of the Company's shares traded on the ASX over five (5) consecutive trading days is equal to or greater than \$0.75.

Class C

- Will vest if, at any time within 36 months following grant date of the Rights the VWAP of the Company's shares traded on the ASX over five (5) consecutive trading days is equal to or greater than \$1.10.

Class D

- Vest immediately and convert into Shares on the Company announcing a positive scoping study in relation to the Vulcan Lithium Project, confirming the Vulcan Lithium Project is commercially viable within 12 months of completion of the Acquisition.

Class E

- Vest immediately and will convert into shares on the Company announcing a positive preliminary feasibility study in relation to the Vulcan Lithium Project, confirming the Vulcan Lithium Project is commercially viable within 24 months of completion of the Acquisition.

Details of Performance Rights vesting conditions:

Class F

- Vest immediately and will convert into shares on the Company announcing that it has secured either an offtake agreement representing a minimum of 30% of production volume over a three year term, or a downstream joint venture partner with a minimum \$10,000,000 investment in relation to the Vulcan Lithium Project within 36 months of completion of the Acquisition.

Class G

- Will vest upon the holder completing six months continuous employment with the Company, with an expiry date of 1 December 2023.

Class H

- Will vest upon the Company announcing a positive preliminary feasibility study in relation to the Vulcan Lithium Project, confirming the Lithium Project is commercially viable within two years of issue of the Performance Rights, with an expiry date of 1 December 2023.

Class I

- Will vest upon the Company announcing that it has secured either an off-take agreement representing a minimum of 30% of production volume over a three year term, or a downstream lithium chemicals joint venture partner with a minimum \$10,000,000 investment in relation to the Vulcan Lithium Project within three years of issue of the Performance Rights, with an expiry date of 1 December 2023.

(iii) On 4 September 2019, the Company issued 13,200,000 Performance Shares (PS) issued to Vendors of the Vulcan Lithium Project Acquisition which will each convert into a Share on a one for one basis on the satisfaction of milestones. Based on management assessment, percentage of a share-based payment expense has been recognised in the Statement of Profit or Loss and Other Comprehensive Income

	Fair value of each PS (\$)	Expected volatility	Grant date	Price at grant date	Expiry date	Vesting hurdle (5-day VWAP)	Interest rate	Number of PS	Total value of PS(\$)	Share based payment expense (\$)
Class A	\$0.15	N/A	4/09/2019	\$0.15	4/09/2020	N/A	N/A	4,400,000	660,000	-(i)
Class B	\$0.15	N/A	4/09/2019	\$0.15	4/09/2021	N/A	N/A	4,400,000	660,000	496,989
Class C	\$0.15	N/A	4/09/2019	\$0.15	4/09/2022	N/A	N/A	4,400,000	660,000	255,028

(iv) Class A has no share-based payment expense for the year due to performance shares vested in the prior year.

- (v) On 10 September 2020, 25 November 2020, and 24 June 2021, shareholder approval was obtained to issue total of 521,304 warrants to EIT InnoEnergy. On 16 September 2020, and on 8 January 2021, the Company issued 479,519 and 32,928 warrants respectively, with 8,857 warrants issued on 9 August 2021, subsequent to 30 June 2021. The warrants can only be exercised after 1 September 2021 and at any time on or prior to expiry. These warrants were valued using a Black-Scholes valuation, with the valuation model inputs used to determine the fair value at grant date as follows:

Grant Date	10/09/2020	25/11/2020	24/06/2021
Expiry Date	16/09/2023	8/01/2023	9/08/2024
Share price at grant date	\$0.89	\$2.38	\$7.89
Exercise Price	\$0.00	\$0.00	\$0.00
Number of warrants	479,519	32,928	8,857
Fair value at grant date	\$0.88	\$2.38	\$7.89
Expected volatility	70%	70%	70%
Risk free rate	0.26%	0.11%	0.20%
Total value	\$426,772	\$78,369	\$69,873
Balance at the end of the year (No.)	479,519	32,928	8,857
Share based payment expense (\$)	349,658	18,103	6,075

- (vi) On 16 September 2020, the Company issued 1,125,250 unlisted options exercisable at \$0.80 on or before 18 months expiry following shareholder approval at a GM held on 10 September 2020. The grant of options was agreed and finalised in June 2020 when the Company completed a capital raise for \$4.8 million however were subject to shareholder approval prior to issue. These options were valued using a Black-Scholes valuation, with the valuation model inputs used to determine the fair value at grant date as follows:

Grant Date	10/09/2020
Expiry Date	16/03/2022
Share price at grant date	\$0.89
Exercise Price	\$0.80
Number of options	1,125,250
Fair value at grant date	\$0.33
Expected volatility	70%
Risk free rate	0.26%
Total value	\$369,757
Share based payment expense (\$)	\$369,757
Exercised	1,125,250
Balance at the end of the year (No)	-

Accounting Policy

Equity-settled and cash-settled share-based compensation benefits are provided to Key Management Personnel and employees.

Equity-settled transactions are awards of shares, or options over shares, which are provided to employees in exchange for the rendering of services. Cash-settled transactions are awards of cash for the exchange of services, where the amount of cash is determined by reference to the share price.

The cost of equity-settled transactions are measured at fair value on grant date. Fair value is independently determined using an appropriate valuation model that takes into account the exercise price, the term of the option, the impact of dilution, the share price at grant date and expected price volatility of the underlying share, the expected dividend yield and the risk free interest rate for the term of the option, together with non-vesting conditions that do not determine whether the consolidated entity receives the services that entitle the employees to receive payment. No account is taken of any other vesting conditions.

The cost of equity-settled transactions are recognised as an expense with a corresponding increase in equity over the vesting period. The cumulative charge to profit or loss is calculated based on the grant date fair value of the award, the best estimate of the number of awards that are likely to vest and the expired portion of the vesting period. The amount recognised in profit or loss for the period is the cumulative amount calculated at each reporting date less amounts already recognised in previous periods.

The cost of cash-settled transactions is initially, and at each reporting date until vested, determined by applying an appropriate valuation model, taking into consideration the terms and conditions on which the award was granted. The cumulative charge to profit or loss until settlement of the liability is calculated as follows:

- (e) During the vesting period, the liability at each reporting date is the fair value of the award at that date multiplied by the expired portion of the vesting period.
- (f) From the end of the vesting period until settlement of the award, the liability is the full fair value of the liability at the reporting date.

All changes in the liability are recognised in profit or loss. The ultimate cost of cash-settled transactions is the cash paid to settle the liability.

Market conditions are taken into consideration in determining fair value. Therefore, any awards subject to market conditions are considered to vest irrespective of whether or not that market condition has been met, provided all other conditions are satisfied.

If equity-settled awards are modified, as a minimum an expense is recognised as if the modification has not been made. An additional expense is recognised, over the remaining vesting period, for any modification that increases the total fair value of the share-based compensation benefit as at the date of modification.

If the non-vesting condition is within the control of the consolidated entity or employee, the failure to satisfy the condition is treated as a cancellation. If the condition is not within the control of the consolidated entity or employee and is not satisfied during the vesting period, any remaining expense for the award is recognised over the remaining vesting period, unless the award is forfeited.

If equity-settled awards are cancelled, it is treated as if it has vested on the date of cancellation, and any remaining expense is recognised immediately. If a new replacement award is substituted for the cancelled award, the cancelled and new award is treated as if they were a modification.

NOTE 20 RELATED PARTY DISCLOSURE

(g) Key Management Personnel Compensation

The aggregate compensation made to directors and other members of key management personnel of the consolidated entity is set out below.

The aggregate compensation made to directors and other members of key management personnel of the consolidated entity is set out below.

	2021	2020
	\$	\$
Short-term benefits	1,124,701	471,534
Post-employment benefits	52,232	20,443
Share-based payments	4,017,627	384,616
	<u>5,194,560</u>	<u>876,593</u>

(h) Transactions with related parties

Terms and conditions

All transactions were made on normal commercial terms and conditions and at market rates.

During the financial year, payments for corporate advisory services outside of Australia of \$45,000 (2020: \$73,185) were made to Viaticus Capital, a related party of Mr Rezos. Viaticus Capital also received fees of \$49,256 (2020: \$18,000) for capital raising fees associated with a placement undertaken in year ending 30 June 2021. The outstanding balance to Viaticus Capital at 30 June 2021 was \$68,836 (2020: \$33,000). The corporate advisory services agreement with Viaticus Capital entered into in 2018 was amended by mutual agreement during the reporting period to exclude any capital raising, M&A or related services.

Dr Kreuter was CEO of Geothermal Group Germany GmbH and GeoThermal Engineering GmbH (GeoT). GeoThermal Engineering GmbH provides engineering services to Vulcan Energie Ressourcen GmbH, wholly sub of the Vulcan Energy Resources Ltd. During the financial year, Geothermal Engineering received €736,609 or A\$1,176,710 from Vulcan Energie Ressourcen GmbH (2020: €77,035 or A\$130,128). There were no amounts outstanding at 30 June 2021 (2020: Nil).

During the financial year payments for consulting fees of \$43,044 (2020: Nil) were made to Alto Group Inc., a related party of Ms Annie Liu. The outstanding balance to Alto Group Inc., at 30 June 2021 was \$17,493 (2020: Nil).

There were no other related party transactions during the previous financial year.

There were no loans made to any KMP during the year ended 30 June 2021 (2020: Nil).

Other than the above, there were no other transactions with KMP during the year ended 30 June 2021.

NOTE 21 COMMITMENTS

Below are the commitments in relation to its exploration and evaluation assets:

	2021	2020
	\$	\$
Within one year	1,589,594	163,639
One to five years	2,155,391	163,639
	<u>3,744,985</u>	<u>327,278</u>

NOTE 22 CONTINGENCIES

As part of the acquisition of Vulcan Lithium Project, the Company agrees to pay the following by way of deferred consideration of remaining 4,400,000 (13,200,000 less 8,800,000) Performance Shares to be issued to the Vendors, which will each convert into a Share on a one for one basis on satisfaction the following milestones:

(i.) 4,400,000 Shares on the Company announcing that it has secured an off-take agreement representing a minimum of 30% of production volume over a three year term, or a downstream joint venture partner with a minimum \$10,000,000 investment in relation to the Vulcan Lithium Project within 36 months of completion of the Acquisition (Milestone 3), (together, the Deferred Consideration).

Other than the above, there are no other contingent assets or contingent liabilities as at 30 June 2021.

NOTE 23 AUDITOR'S REMUNERATION

	2021 \$	2020 \$
Amounts received or due and receivable by RSM Australia Partners for:		
Audit or review of the annual financial report	59,000	31,500
Other services - RSM Australia Pty Ltd for:		
– Corporate Finance	1,500	-
	60,500	31,500

NOTE 24 ACCUMULATED LOSSES

	2021 \$	2020 \$
Balance at beginning of the year	(4,670,672)	(1,117,313)
Loss after income tax for the year	(10,744,614)	(3,553,359)
Balance at end of the year	(15,415,286)	(4,670,672)

NOTE 25 INVESTMENT IN CONTROLLED ENTITIES

	Principal Activities	Country of Incorporation	Ownership Interest	Ownership Interest
			2021 %	2020 %
Kuniko Limited	Exploration	Australia	100	100
Vulcan Energy Resources Europe Pty Ltd	Exploration	Australia	100	100
Vulcan Energie Ressourcen GmbH	Exploration	Germany	100	100

NOTE 26 PARENT ENTITY

	2021 \$	2020 \$
Statement of Financial Position		
ASSETS		
Current Assets	114,598,014	6,330,432
Non-Current Assets	14,989,640	2,745,876
TOTAL ASSETS	129,587,654	9,076,308
LIABILITIES		

Current Liabilities	603,110	190,270
TOTAL LIABILITIES	603,110	190,270
 EQUITY		
Issued Capital	136,500,372	11,836,741
Reserves	8,021,740	1,741,986
Accumulated losses	(15,537,568)	(4,692,689)
TOTAL EQUITY	128,984,544	8,886,038
 Statement of Profit or Loss and other comprehensive income		
Loss for the year	10,844,879	(3,575,376)
Total Comprehensive Income	10,844,879	(3,575,376)

Contingent liabilities

Other than disclosed at Note 22, the parent entity has no other contingent assets or contingent liabilities as at 30 June 2021 and 30 June 2020.

Capital commitments - Property, plant and equipment

The parent entity had no capital commitments for property, plant and equipment as at 30 June 2021 and 30 June 2020.

Exploration commitments

The parent entity has no exploration commitments.

Significant accounting policies

The accounting policies of the parent entity are consistent with those of the consolidated entity, as disclosed in the financial statements, except for the following:

Investments in subsidiaries are accounted for at cost, less any impairment, in the parent entity.

NOTE 27 EVENTS AFTER THE REPORTING DATE

- (i) On 6 July 2021, the Company issued 336,396 shares and 91,174 performance shares in the Company, comprising:
- 11,396 shares and 91,174 performance shares, being the security consideration for the acquisition of Global Geothermal Holding UG (a company incorporated under the laws of Germany); and
 - 325,000 shares (216,667 of which are escrowed until 6 July 2022) being the share consideration for the acquisition of Global Engineering & Consulting Company GmbH (a company incorporated under the laws of Germany),

in both cases, as approved by shareholders at a General Meeting held on 24 June 2021.

The company also completed on the same day the acquisition of Geothermal Engineering GmbH.

On 12 July 2021, the Company announced that new exploration license for geothermal energy, geothermal heat, brine and lithium has been granted in the Upper Rhine Valley for a three year period. The license covers 108km² of area considered by the Company to be prospective for geothermal and lithium brine.

On 13 July 2021, Markus Ritzauer was appointed as CFO of Vulcan's German operations, effective from 1 September 2021. Mr. Ritzauer has over 20 years' experience in finance roles within the chemicals industry. He is currently Head of Finance at Currenta, a chemical park service provider in Germany formerly part of Bayer.

On 19 July 2021, the Company signed a binding lithium hydroxide offtake term sheet ("Agreement") with LG Energy Solution ("LGES"). LGES is the largest producer of lithium-ion batteries for electric vehicles in the world and supplies its products to top global OEMs. The Agreement is for an initial five-year term which can be extended by a further five years, with start of commercial delivery set for 2025. LGES to purchase 5,000 metric tonnes of battery grade lithium hydroxide for the first year of the supply term, ramping up to 10,000 metric tonnes per year during the second and subsequent years of the supply term. Pricing will be based on market prices for lithium hydroxide. Conditions precedent to start of commercial delivery include the execution of a definitive formal offtake agreement on materially the same terms by end November 2021, successful start of commercial operation and full product qualification.

On 27 July 2021, the Company announced, further to its announcement of 21 April 2021, the close of the \$7.88 million IPO raise for the spin out of its wholly owned subsidiary Kuniko Limited. The Company is expecting the spin off and listing of Kuniko Limited to complete on 24 August 2021. Following the spin off Vulcan will retain a 25.85% holding in Kuniko Limited.

On 2 August 2021, the Company and Renault Group, top automotive player and pioneer in the European EV market have signed a lithium offtake term sheet. The agreement is for an initial five-year term which can be extended if mutually agreed, with a start of commercial delivery set for 2026. In line with Renault Group's ambition to offer 'made in Europe' cars, and following the launch of Renault ElectricCity – the most competitive and efficient production unit for electric vehicles in Europe – the Group will purchase between 6,000 to 17,000 metric tonnes per year of battery grade lithium chemicals produced in Germany by Vulcan.

On 4 August 2021, the Company announced that, after having originally commissioned the world's first Life Cycle Assessment (LCA) and global study on the environmental footprint of lithium hydroxide (LHM) production, it again commissioned Minviro Ltd., to update its independent LCA based on more recent data from Vulcan's Pre-Feasibility Study (PFS). Results of the updated LCA estimates a negative 2.9t of CO₂ emitted per tonne of LHM to be produced from Vulcan's Zero Carbon Lithium™ Project, including Scope 1, 2 and 3 emissions. Vulcan's negative CO₂ emission intensity is a product of the significant impact offset generated by renewable geothermal energy production as well as use of geothermal heat to drive lithium processing, and Vulcan's industry-leading move to strictly exclude fossil fuels as an energy source from its planned operations. According to public data, this result confirms that Vulcan's Zero Carbon Lithium™ Project has the lowest planned carbon footprint in the world compared to any LCA results previously published in the lithium industry.

On 9 August 2021, the Company announced that it is to apply for dual listing on the regulated market of the Frankfurt Stock Exchange (FSE), in the Prime Standard market segment, which has the very highest transparency requirements of all segments on the FSE.

On 19 August 2021 the Company announced it had signed a partnership agreement with Mr. Nico Rosberg and the Rosberg X Racing (RXR) electric racing team. The Partnership Agreement sees Vulcan Energy becoming an Official Partner of RXR and RXR and Mr Rosberg becoming shareholders in Vulcan, in return for advertising and promotional rights for the 2021 and 2022 racing seasons.

On 23 August 2021 the Company announced it had signed BNP Paribas as financial advisor towards financing the Zero Carbon Lithium™ Project.

On 24 August 2021 Kuniko Limited successfully listed on the Australian Stock Exchange (ASX:KNI), thereby completing the spin-off of the Norwegian assets announced in June 2021, with the Company retaining a 25.85% shareholding.

Apart from the above, no other matter or circumstance has arisen since 30 June 2021 that has significantly affected, or may significantly affect the consolidated entity's operations, the results of those operations, or the consolidated entity's state of affairs in future financial years.

Directors' Declaration

In the Directors' opinion:

- (i) The financial statements and accompanying notes are in accordance with the Corporations Act 2001, including:
 - (i) complying with Australian Accounting Standards, the Corporations Regulations 2001 and other mandatory professional reporting requirements; and
 - (ii) giving a true and fair view of the consolidated entity's financial position as at 30 June 2021 and of its performance for the financial year ended on that date.
- (j) The financial statements and notes comply with International Financial Reporting Standards.
- (k) There are reasonable grounds to believe that the Company will be able to pay its debts as and when they become due and payable.

The Directors have been given the declarations required by section 295A of the Corporations Act 2001.

This declaration is made in accordance with a resolution of the Board of Directors made pursuant to section 295(5)(a) of the Corporations Act 2001 and is signed for and on behalf of the Directors by:



Gavin Rezos
Chairman
2 September 2021

18.3.6 Independent Auditor's Report

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF VULCAN ENERGY RESOURCES LIMITED

Opinion

We have audited the financial report of Vulcan Energy Resources Limited (the Company) and its subsidiaries (the Group), which comprises the consolidated statement of financial position as at 30 June 2021, the consolidated statement of profit or loss and other comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies, and the directors' declaration.

In our opinion, the accompanying financial report of the Group is in accordance with the Corporations Act 2001, including:

- (i) Giving a true and fair view of the Group's financial position as at 30 June 2021 and of its financial performance for the year then ended; and
- (ii) Complying with Australian Accounting Standards and the Corporations Regulations 2001.

Basis for Opinion

We conducted our audit in accordance with Australian Auditing Standards. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Report section of our report. We are independent of the Group in accordance with the auditor independence requirements of the Corporations Act 2001 and the ethical requirements of the Accounting Professional and Ethical Standards Board's APES 110 Code of Ethics for Professional Accountants (the Code) that are relevant to our audit of the financial report in Australia. We have also fulfilled our other ethical responsibilities in accordance with the Code.

We confirm that the independence declaration required by the Corporations Act 2001, which has been given to the directors of the Company, would be in the same terms if given to the directors as at the time of this auditor's report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial report of the current period. These matters were addressed in the context of our audit of the financial report as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key Audit Matter	How our audit addressed this matter
Exploration and Evaluation Expenditure Refer to Note 10 in the financial statements	
The Group has capitalised exploration and evaluation expenditure with a carrying value of \$13,793,798 as at 30 June 2021.	Our audit procedures included: Ensuring that the right to tenure of the area of interest was current;
We considered this to be a key audit matter due to the significant management judgments	<ul style="list-style-type: none">• Agreeing a sample of additions to supporting documentation and ensuring the amounts are capital in

<p>involved in assessing the carrying value of the asset including:</p> <ul style="list-style-type: none"> • Determination of whether the exploration and evaluation expenditure can be associated with finding specific mineral resources and the basis on which that expenditure is allocated to an area of interest; • Assessing whether exploration activities have reached a stage at which the existence of economically recoverable reserves may be determined; and • Assessing whether any indicators of impairment are present and if so, judgement applied to determine and quantify any impairment loss. 	<p>nature and relate to the area of interest;</p> <ul style="list-style-type: none"> • Enquiring with management and reviewing budgets and other documentation as evidence that active and significant operations in, or relation to, the area of interest will be continued in the future; • Assessing and evaluating management's determination that exploration activities have not yet progressed to the stage where the existence or otherwise of economically recoverable reserves may be determined; • Assessing and evaluating management's assessment of whether indicators of impairment existed at the reporting date; and • Assessing that the impairment expense recognised for the year ended was appropriately calculated.
<p><i>Share-based payments</i> Refer to Note 19 in the financial statements</p>	
<p>During the year, the Group issued options, warrants and performance rights to key management personnel, employees, advisors and suppliers.</p> <p>Management have accounted for these instruments in accordance with AASB 2 Share-Based Payments.</p> <p>We have considered this to be a key audit matter because:</p> <ul style="list-style-type: none"> • The complexity of the accounting required to value these instruments; • Management judgement is required to determine the probability of vesting conditions of these instruments and the inputs used in the valuation model to value these instruments; and • The recognition of the share-based payment expense is complex due to the variety of vesting conditions attached to these instruments. 	<p>Our audit procedures included:</p> <ul style="list-style-type: none"> • Obtaining an understanding of the terms and conditions of the instruments issued; • Reviewing the completeness of the instruments issued at reporting date; • Reviewing management's valuation methodology; • Reviewing the key inputs used for each instrument in the valuation model; • Critically assessing management's determination of the vesting probability of each instrument; • Recalculating the value of the share-based payment expense to be recognised in consolidated statement of profit or loss and other comprehensive income; and • Reviewing the appropriateness of disclosures in the financial statements.

Other Information

The directors are responsible for the other information. The other information comprises the information included in the Group's annual report for the year ended 30 June 2021 but does not include the financial report and the auditor's report thereon.

Our opinion on the financial report does not cover the other information and accordingly we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial report, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial report or our knowledge obtained in the audit or otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of the Directors for the Financial Report

The directors of the Company are responsible for the preparation of the financial report that gives a true and fair view in accordance with Australian Accounting Standards and the Corporations Act 2001 and for such internal control as the directors determine is necessary to enable the preparation of the financial report that gives a true and fair view and is free from material misstatement, whether due to fraud or error.

In preparing the financial report, the directors are responsible for assessing the ability of the Group to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Group or to cease operations, or have no realistic alternative but to do so.

Auditor's Responsibilities for the Audit of the Financial Report

Our objectives are to obtain reasonable assurance about whether the financial report as a whole is free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the Australian Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of this financial report.

A further description of our responsibilities for the audit of the financial report is located at the Auditing and Assurance Standards Board website at: https://www.auasb.gov.au/auditors_responsibilities/ar2.pdf. This description forms part of our auditor's report.

Report on the Remuneration Report

Opinion on the Remuneration Report

We have audited the Remuneration Report included in the directors' report for the year ended 30 June 2021.

In our opinion, the Remuneration Report of Vulcan Energy Resources Limited, for the year ended 30 June 2021, complies with section 300A of the Corporations Act 2001.

Responsibilities

The directors of the Company are responsible for the preparation and presentation of the Remuneration Report in accordance with section 300A of the Corporations Act 2001. Our responsibility is to express an opinion on the Remuneration Report, based on our audit conducted in accordance with Australian Auditing Standards.

RSM AUSTRALIA PARTNERS

Perth, WA

Dated: 2 September 2021

TUTU PHONG

Partner

18.4 Financial Statements 2020

18.4.1 Consolidated Statement of Profit or Loss and Other Comprehensive Income

For the Financial Year Ended 30 June 2020

	Note	2020 \$	2019 \$
Revenue from continuing operations			
Other income	4	95,342	56,055
Expenses			
Administrative expenses	5(a)	(320,920)	(172,580)
Compliance and regulatory expenses		(98,906)	(62,970)
Consulting and legal fees	5(b)	(424,603)	(109,642)
Employee benefit expenses		(234,551)	(156,165)
Investor relations		(314,510)	-
Introducer fee		(150,000)	-
Occupancy costs		(18,148)	(11,000)
Impairment expense	10	(286,017)	(287,667)
Share-based payments expense	16	(1,690,473)	(62,138)
Other expenses		(103,406)	(27,533)
Foreign currency (losses)/gain		(7,167)	(3,024)
Loss from continuing operations before income tax		(3,553,359)	(836,664)
Income tax expense	6	-	-
Loss from continuing operations after income tax		(3,553,359)	(836,664)
Other comprehensive income		(22,016)	-
Other comprehensive income for the year, net of tax		(22,016)	-
Total comprehensive loss attributable to the members of Vulcan Energy Resources Limited		(3,575,375)	(836,664)
Loss per share for the year attributable to the members Vulcan Energy Resources Limited:			
Basic loss per share (cents)	7	(7.37)	(2.64)
Diluted loss per share (cents)	7	(7.37)	(2.64)

The Consolidated Statement of Profit or Loss and Other Comprehensive Income should be read in conjunction with the notes to the financial statements.

18.4.2 Consolidated Statement of Financial Position

As at 30 June 2020

	Note	2020 \$	2019 \$
ASSETS			
Current assets			
Cash and cash equivalents	8	6,421,557	3,348,996
Trade and other receivables	9	116,071	35,063
Total current assets		6,537,628	3,384,059
Non-current assets			
Exploration and evaluation expenditure	10	2,556,980	526,001
Intangible assets		13,353	-
Total non-current assets		2,570,333	526,001
Total assets		9,107,961	3,910,060
LIABILITIES			
Current liabilities			
Trade and other payables	11	221,922	116,944
Total current liabilities		221,922	116,944
Total liabilities		221,922	116,944
Net assets		8,886,039	3,793,116
EQUITY			
Contributed equity	12	11,836,741	4,746,416
Reserves	13	1,719,970	164,013
Accumulated losses	21	(4,670,672)	(1,117,313)
Total equity		8,886,039	3,793,116

The Consolidated Statement of Financial Position should be read in conjunction with the notes to the financial statements.

18.4.3 Consolidated Statement of Changes in Equity

For the Financial Year Ended 30 June 2020

	Issued Capital \$	Reserves \$	Accumulated Losses \$	Total \$
At 1 July 2019	4,746,416	164,013	(1,117,313)	3,793,116
Loss for the year	-	-	(3,553,359)	(3,553,359)
Other comprehensive loss for the year	-	(22,016)	-	(22,016)
Total comprehensive loss for the year after tax	-	(22,016)	(3,553,359)	(3,575,375)
<i>Transactions with owners in their capacity as owners:</i>				
Issue of share capital	7,438,810	-	-	7,438,810
Share issue costs	(348,485)	-	-	(348,485)
Share-based payments	-	1,577,973	-	1,577,973
Balance at 30 June 2020	11,836,741	1,719,970	(4,670,672)	8,886,039

	Issued Capital \$	Reserves \$	Accumulated Losses \$	Total \$
At 1 July 2018	4,746,416	-	(280,649)	4,465,767
Loss for the year	-	-	(836,664)	(836,664)
Total comprehensive loss for the year after tax	-	-	(836,664)	(836,664)
<i>Transactions with owners in their capacity as owners:</i>				
Issue of listed options	-	126,875	-	126,875
Option issue costs	-	(25,000)	-	(25,000)
Share-based payments	-	62,138	-	62,138
Balance at 30 June 2019	4,746,416	164,013	(1,117,313)	3,793,116

The Consolidated Statement of Changes in Equity should be read in conjunction with the notes to the financial statements.

18.4.4 Consolidated Statement of Cash Flows

For the Financial Year Ended 30 June 2020

	Note	2020 \$	2019 \$
Cash flows from operating activities			
Payments to suppliers and employees		(1,427,391)	(417,562)
Interest received		45,342	56,055
Other income		50,000	-
Net cash used in operating activities	8(a)	(1,332,049)	(361,507)
Cash flows from investing activities			
Payments for exploration and evaluation costs		(1,205,783)	(438,127)
Net cash acquired from acquisition of subsidiary	14	404	-
Loans to other entities		-	(1,154)
Payments for software		(13,353)	-
Net cash used in investing activities		(1,218,732)	(439,281)
Cash flows from financing activities			
Proceeds from issue of listed options		-	126,875
Option issue costs		-	(25,000)
Proceeds from issued shares		5,976,310	-
Share issue costs		(330,545)	-
Net cash from financing activities		5,645,765	101,875
Net increase/(decrease) in cash and cash equivalents		3,094,984	(698,913)
Cash and cash equivalents at the beginning of the year		3,348,996	4,047,909
Effect of exchange rate fluctuations on cash held		(22,423)	-
Cash and cash equivalents at the end of the year	8	6,421,557	3,348,996

The Consolidated Statement of Cash Flows should be read in conjunction with the notes to the financial statements.

18.4.5 Notes to the Consolidated Financial Statements

NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

(a) Reporting Entity

Vulcan Energy Resources Limited (referred to as "Vulcan" or the "Company") is a company domiciled in Australia. The address of the Company's registered office and principal place of business is disclosed in the Corporate Directory of the Annual Report. The consolidated financial statements of the Company as at and for the year ended 30 June 2020 comprise the Company and its subsidiaries (together referred to as the "Consolidated Entity" or the "Group").

(b) Basis of Preparation

Statement of compliance

The consolidated financial statements are general purpose financial statements which have been prepared in accordance with Australian Accounting Standards and Interpretations issued by the Australian Accounting Standards Board ("AASB") and the Corporations Act 2001. The consolidated financial statements comply with International Financial Reporting Standards ("IFRS") adopted by the International Accounting Standards Board ("IASB"). Vulcan Energy Resources Limited is a for-profit entity for the purpose of preparing the financial statements.

The annual report was authorised for issue by the Board of Directors on 30 September 2020.

Basis of measurement

The consolidated financial statements have been prepared on a going concern basis in accordance with the historical cost convention, unless otherwise stated.

Parent entity information

In accordance with the Corporations Act 2001, these financial statements present the results of the consolidated entity only. Supplementary information about the parent entity is disclosed in Note 23.

New, revised or amended standards and interpretations adopted by the Group

The Group has adopted all of the new, revised or amending Accounting Standards and Interpretations issued by the Australian Accounting Standards Board ("AASB") that are mandatory for the current reporting period.

The following Accounting Standards and Interpretations are most relevant to the consolidated entity:

AASB 16 Leases

The consolidated entity has adopted AASB 16 from 1 July 2019. The standard replaces AASB 117 'Leases' and for lessees eliminates the classifications of operating leases and finance leases. Except for short-term leases and leases of low-value assets, right-of-use assets and corresponding lease liabilities are recognised in the statement of financial position. Straight-line operating lease expense recognition is replaced with a depreciation charge for the right-of-use assets (included in operating costs) and an interest expense on the recognised lease liabilities (included in finance costs). In the earlier periods of the lease, the expenses associated with the lease under AASB 16 will be higher when compared to lease expenses under AASB 117. However, EBITDA (Earnings Before Interest, Tax, Depreciation and Amortisation) results improve as the operating expense is now replaced by interest expense and depreciation in profit or loss. For classification within the statement of cash flows, the interest portion is disclosed in operating activities and the principal portion of the lease payments are separately disclosed in financing activities. For lessor accounting, the standard does not substantially change how a lessor accounts for leases.

Impact of adoption

There is no impact on the Group for the year ended 30 June 2020 and the prior year financial statements did not have to be restated as a result.

Revenue recognition

The consolidated entity recognises revenue as follows:

Revenue from contracts with customers

Revenue is recognised at an amount that reflects the consideration to which the consolidated entity is expected to be entitled in exchange for transferring goods or services to a customer. For each contract with a customer, the consolidated entity: identifies the contract with a customer; identifies the performance obligations in the contract; determines the transaction price which takes into account estimates of variable consideration and the time value of money; allocates the transaction price to the separate performance obligations on the basis of the relative stand-alone selling price of each distinct good or service to be delivered; and recognises revenue when or as each performance obligation is satisfied in a manner that depicts the transfer to the customer of the goods or services promised.

Interest

Interest revenue is recognised as interest accrues using the effective interest method. This is a method of calculating the amortised cost of a financial asset and allocating the interest income over the relevant period using the effective interest rate, which is the rate that exactly discounts estimated future cash receipts through the expected life of the financial asset to the net carrying amount of the financial asset.

Other revenue

Other revenue is recognised when it is received or when the right to receive payment is established.

Current and non-current classification

Assets and liabilities are presented in the statement of financial position based on current and non-current classification.

An asset is classified as current when: it is either expected to be realised or intended to be sold or consumed in the consolidated entity's normal operating cycle; it is held primarily for the purpose of trading; it is expected to be realised within 12 months after the reporting period; or the asset is cash or cash equivalent unless restricted from being exchanged or used to settle a liability for at least 12 months after the reporting period. All other assets are classified as non-current.

A liability is classified as current when: it is either expected to be settled in the consolidated entity's normal operating cycle; it is held primarily for the purpose of trading; it is due to be settled within 12 months after the reporting period; or there is no unconditional right to defer the settlement of the liability for at least 12 months after the reporting period. All other liabilities are classified as non-current.

Equity Instruments

Where the Group's management has elected to present fair value gains and losses on equity investments in OCI, there is no subsequent reclassification of fair value gains and losses to profit or loss following the derecognition of the investment. Dividends from such investments continue to be recognised in the profit or loss as other income when the Group's right to receive payments is established.

Impairment

From 1 July 2019, the Group assesses on a forward-looking basis the expected credit losses (ECLs) associated with its debt instruments carried at amortised cost and FVOCI. ECLs are based on the difference between the contractual cash flows due in accordance with the contract and all the cash flows that the Group expects to receive. The shortfall is then discounted at an approximation to the asset's original effective interest rate.

The Group assesses at each balance date whether there is objective evidence that a financial asset or group of financial assets is impaired. For trade and other receivables, the Group applies the simplified approach permitted by AASB 9, which requires expected lifetime losses to be recognised from initial recognition of the receivables. The expected credit losses on these financial assets are estimated using a provision matrix based on the Group's historical credit loss experience.

New standards and interpretations not yet mandatory or early adopted

The Australian Accounting Standards and Interpretations that have recently been issued or amended but are not yet mandatory, have not been early adopted by the Group for the annual reporting period ended 30 June 2020. The Group intends to adopt these standards and interpretations, if applicable, when they become effective.

Conceptual Framework for Financial Reporting (Conceptual Framework)

The revised Conceptual Framework is applicable to annual reporting periods beginning on or after 1 January 2020 and early adoption is permitted. The Conceptual Framework contains new definition and recognition criteria as well as new guidance on measurement that affects several Accounting Standards. Where the consolidated entity has relied on the existing framework in determining its accounting policies for transactions, events or conditions that are not otherwise dealt with under the Australian Accounting Standards, the consolidated entity may need to review such policies under the revised framework. At this time, the application of the Conceptual Framework is not expected to have a material impact on the consolidated entity's financial statements.

Significant Judgements and Estimates

The preparation of financial statements requires the use of certain critical accounting estimates. It also requires management to exercise its judgement in the process of applying the consolidated entity's accounting policies. The areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the financial statements are disclosed in Note 2.

(c) Comparatives

The comparative period is 1 July 2018 to 30 June 2019.

(d) Principles of Consolidation

Subsidiaries

The consolidated financial statements incorporate the assets and liabilities of all subsidiaries of Vulcan Energy Resources Limited ('Company' or 'parent entity') as at 30 June 2020 and the results of all subsidiaries for the year then ended.

Subsidiaries are all entities (including special purpose entities) over which the consolidated entity has the power to govern the financial and operating policies, generally accompanying a shareholding of more than one-half of the voting rights. The existence and effect of potential voting rights that are currently exercisable or convertible are considered when assessing whether the consolidated entity controls another entity.

Subsidiaries are fully consolidated from the date on which control is transferred to the consolidated entity. They are de-consolidated from the date that control ceases.

Intercompany transactions, balances and unrealised gains on transactions between consolidated entity companies are eliminated. Unrealised losses are also eliminated unless the transaction provides evidence of the impairment of the asset transferred. Accounting policies of subsidiaries have been changed where necessary to ensure consistency with the policies adopted by the consolidated entity.

The acquisition method of accounting is used to account for business combinations by the consolidated entity. A change in ownership interest, without the loss of control, is accounted for as an equity transaction, where the difference between the consideration transferred and the book value of the share of the non-controlling interest acquired is recognised directly in equity attributable to the parent.

Non-controlling interests in the results and equity of subsidiaries are shown separately in the consolidated statement of profit or loss and other comprehensive income, statement of changes in equity and statement of financial position respectively.

(e) Segment Reporting

Operating segments are reported in a manner consistent with the internal reporting provided to the chief operating decision maker. The chief operating decision maker, who is responsible for allocating resources and assessing performance of the operating segments, has been identified as the Board. Management has determined that based on the report reviewed by the Board and used to make strategic decisions, that the consolidated entity has one reportable segment.

(f) Foreign Currency Translation

Functional and presentation currency

Items included in the financial statements of each of the consolidated entity's entities are measured using the currency of the primary economic environment in which the entity operates ("functional currency"). The consolidated financial statements are presented in Australian dollars, which is Vulcan Energy Resources Limited's functional and presentation currency.

Transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at period end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in profit or loss.

(g) Asset Acquisition not constituting a Business

When an asset acquisition does not constitute a business combination, the assets and liabilities are assigned a carrying amount based on their relative fair values in an asset purchase transaction and no deferred tax will arise in relation to the acquired assets and assumed liabilities as the initial recognition exemption for deferred tax under AASB 112 applies. No goodwill will arise on the acquisition and transaction costs of the acquisition will be included in the capitalised cost of the asset.

(h) Dividends

Dividends are recognised when declared during the financial period and no longer at the discretion of the Company.

NOTE 2 CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS AND ASSUMPTIONS

The preparation of the financial statements requires management to make judgements, estimates and assumptions that affect the reported amounts in the financial statements. Management continually evaluates its judgements and estimates in relation to assets, liabilities, contingent liabilities, revenue and expenses.

Management bases its judgements, estimates and assumptions on historical experience and on other various factors, including expectations of future events, management believes to be reasonable under the circumstances. The resulting accounting judgements and estimates will seldom equal the related actual results. The judgements, estimates and assumptions in these financial statements that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial period are disclosed below.

Coronavirus (COVID-19) pandemic

Judgement has been exercised in considering the impacts that the Coronavirus (COVID-19) pandemic has had, or may have, on the consolidated entity based on known information. This consideration extends to the nature of the products and services offered, customers, supply chain, staffing and geographic regions in which the consolidated entity operates. Other than as addressed in specific notes, there does not currently appear to be either any significant impact upon the financial statements or any significant uncertainties with respect to events or conditions which may impact the consolidated entity unfavourably as at the reporting date or subsequently as a result of the Coronavirus (COVID-19) pandemic.

Exploration and evaluation expenditure

Exploration and evaluation costs have been capitalised on the basis that activities in the area have not yet reached a stage that permits reasonable assessment of the existence of economically recoverable reserves. Key judgements are applied in considering costs to be capitalised which includes determining expenditures directly related to these activities and allocating overheads between those that are expensed and capitalised.

Share based payments

The Group measures the cost of equity settled transactions with Directors, employees and consultants, where applicable, by reference to the fair value of equity instruments at the date at which they are granted. The fair value is determined using an appropriate valuation model taking into account the terms and conditions upon which the instruments were granted. The accounting estimates and assumptions relating to equity-settled shared-based payments would have no impact on the carrying amounts of assets and liabilities within the next annual reporting period but may impact profit or loss and equity.

NOTE 3 SEGMENT INFORMATION

Operating segments are reported in a manner consistent with the internal reporting provided to the chief operating decision makers. The chief operating decision makers, who are responsible for allocating resources and assessing performance of the operating segments, have been identified as the Board of Directors.

Following the acquisition of a 100% interest in the Vulcan Lithium Project in the Upper Rhine Valley of Germany on 4 September 2019, it was determined that the Group operates in three operating segments being, energy metals exploration in Germany, copper and zinc mineral exploration in Norway and resources allocated to administration. This is the basis in which internal reports are provided to the Directors for assessing performance and determining the allocation of resources within the Group.

(i) Segment performance	Exploration Germany	Exploration Norway	Administration	Total
30-June-20	\$	\$	\$	\$
Revenue				
Interest income	-	-	45,342	45,342
Other income			50,000	50,000
Total segment revenue	-	-	95,342	95,342

Reconciliation of segment results to net loss before tax

Amounts not included in segment results but reviewed by the Board

- Administration, consulting and other expenses	(3,648,701)
Net loss before tax from continuing operations	(3,553,359)

(ii) Segment assets	Exploration Germany	Exploration Norway	Administration	Total
30-June-20	\$	\$	\$	\$
Total segment asset	2,279,731	290,602	6,537,628	9,107,961

(ii) Segment liabilities	Exploration Germany	Exploration Norway	Administration	Total
30-June-20	\$	\$	\$	\$
Total segment liabilities	(30,984)	(668)	(190,270)	(221,922)

NOTE 4 REVENUE

	2020	2019
	\$	\$
Other income		
Interest income	45,342	56,055
Cash boost	50,000	-
	95,342	56,055

NOTE 5 EXPENSES

	2020	2019
	\$	\$
(a) Administrative expenses		
Accounting, audit and company secretarial fees	151,336	144,325
Travel expenses	107,183	25,766
General and administration expenses	62,401	2,489
	320,920	172,580
(b) Consultancy and legal expenses		
Corporate advisory fees	158,048	105,000
Consulting fees	52,993	-
Legal fees	213,562	4,642
	424,603	109,642

NOTE 6 INCOME TAX

(a) The components of tax expense comprise:

Current tax	-	-
Deferred tax	-	-
Income tax expense reported in the of profit or loss and other comprehensive income	-	-

(b) The prima facie tax on loss from ordinary activities before income tax is reconciled to the income tax as follows:

Loss before income tax expense	(3,553,359)	(836,664)
Prima facie tax benefit on loss before income tax at 30% (2019: 30%)	(1,066,008)	(250,999)
Tax effect of:		
Non-deductible expense	603,944	114,064
Tax losses and temporary differences not brought to account	451,694	136,935
Foreign corporate rate differential	10,370	-
Income tax expense	-	-

(c) Deferred tax assets/(liabilities) not brought to account are:

Accruals	26,411	15,300
Prepayments	(5,743)	(5,739)
Other	20,042	-
Tax losses	606,194	164,108
Total deferred tax balances not brought to account	646,904	173,669

Potential deferred tax assets attributable to tax losses and other temporary differences have not been brought to account at 30 June 2020 because the directors do not believe it is appropriate to regard realisation of the deferred tax assets as probable at this point in time. These benefits will only be obtained if:

- the Company derives future assessable income of a nature and of an amount sufficient to enable the benefit from the deductions for the expenditure to be realised; and
- no changes in tax legislation adversely affect the Company in realising the benefit from the deductions for the expenditure.

Accounting Policy

The income tax expense (revenue) for the year comprises current income tax expense (income) and deferred tax expense (income).

Current Tax

Current income tax expense charged to the profit or loss is the tax payable on taxable income calculated using applicable income tax rates enacted, or substantially enacted, as at the end of the reporting period. Current tax liabilities (assets) are therefore measured at the amounts expected to be paid to (recovered from) the relevant taxation authority.

Deferred Tax

Deferred tax expense reflects movements in deferred tax asset and deferred tax liability balances during the year as well as unused tax losses.

Current and deferred income tax expense (income) is charged or credited directly to equity instead of the profit or loss when the tax relates to items that are credited or charged directly to equity.

Deferred tax assets and liabilities are ascertained based on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the financial statements. Deferred tax assets also result where amounts have been fully expensed but future tax deductions are available. No deferred income tax will be recognised from the initial recognition of an asset or liability, excluding a business combination, where there is no effect on accounting or taxable profit or loss.

Deferred tax assets and liabilities are calculated at the tax rates that are expected to apply to the period when the asset is realised or the liability is settled, based on tax rates enacted or substantively enacted at the end of the reporting period. Their measurement also reflects the manner in which management expects to recover or settle the carrying amount of the related asset or liability.

Deferred tax assets relating to temporary differences and unused tax losses are recognised only to the extent that it is probable that future taxable profit will be available against which the benefits of the deferred tax asset can be utilised.

Where temporary differences exist in relation to investments in subsidiaries, branches, associates, and joint ventures, deferred tax assets and liabilities are not recognised where the timing of the reversal of the temporary difference can be controlled and it is not probable that the reversal will occur in the foreseeable future.

Current tax assets and liabilities are offset where a legally enforceable right of set-off exists and it is intended that net settlement or simultaneous realisation and settlement of the respective asset and liability will occur. Deferred tax assets and liabilities are offset where a legally enforceable right of set-off exists, the deferred tax assets and liabilities relate to income taxes levied by the same taxation authority on either the same taxable entity or different taxable entities where it is intended that net settlement or simultaneous realisation and settlement of the respective asset and liability will occur in future periods in which significant amounts of deferred tax assets or liabilities are expected to be recovered or settled.

NOTE 7 LOSS PER SHARE

	2020	2019
	\$	\$
Net loss for the year	(3,553,359)	(836,664)
Weighted average number of ordinary shares for basic and diluted loss per share.	48,226,596	31,750,001
Basic and diluted loss per share (cents)	(7.37)	(2.64)

Accounting Policy

Basic Loss Per Share

Basic loss per share is determined by dividing net profit or loss after income tax attributable to members of the Company, excluding any costs of servicing equity other than ordinary shares, by the weighted average number of ordinary shares outstanding during the financial year, adjusted for bonus elements in ordinary shares issued during the year.

Diluted Loss Per Share

Diluted loss per share adjusts the figures used in the determination of basic earnings per share to take into account the after-income tax effect of interest and other financing costs associated with dilutive potential ordinary shares and the weighted average number of shares assumed to have been issued for no consideration in relation to dilutive potential ordinary shares.

NOTE 8 CASH AND CASH EQUIVALENTS

	2020	2019
	\$	\$
Cash at bank and in hand	4,621,557	348,996
Short-term deposits	1,800,000	3,000,000
	6,421,557	3,348,996

(a) Reconciliation of net loss after tax to net cash flows from operations

Loss for the financial year/period	(3,553,359)	(836,664)
<i>Adjustments for:</i>		
Share based payments	2,040,473	62,138
Impairment expense	286,017	287,667
<i>Changes in assets and liabilities</i>		
Trade and other receivables	(81,008)	61,576
Trade and other payables	(24,172)	63,776
Net cash used in operating activities	(1,332,049)	(361,507)

Accounting Policy

Cash at bank earns interest at floating rates based on daily deposit rates. Short-term deposits are made in varying periods between one day and three months, depending on the immediate cash requirements of the Group and earn interest at the respective short-term deposit rates.

NOTE 9 TRADE AND OTHER RECEIVABLES

	2020	2019
	\$	\$
GST receivable (net)	47,049	14,779
VAT receivable (net)	51,430	-
Other receivable	17,592	19,130
Loan to Vulcan Energy Resources	-	1,154
	116,071	35,063

Allowance for impairment loss

Other receivables are non-interesting bearing and are generally on terms of 30 days.

Trade Receivables

Trade and other receivables include amounts due from customers for goods sold and services performed in the ordinary course of business. Receivables expected to be collected within 12 months of the end of the reporting period are classified as current assets. All other receivables are classified as non-current assets. Refer to Note 1(b)(ii) for expected credit loss allowance assessment.

Goods and Services Tax ('GST')

Revenues, expenses and assets are recognised net of the amount of GST, except where the amount of GST incurred is not recoverable from the Australian Taxation Office. In these circumstances, the GST is recognised as part of the cost of acquisition of the asset or the assets or part of the expense.

Receivables and payables are stated inclusive of the amount of GST receivable or payable. The net amount of GST recoverable from, or payable to, the taxation authority is included as a current asset or liability in the Consolidated statement of financial position.

Cash flows are presented in the statement of cash flows on a gross basis, except for the GST on investing and financial activities, which are disclosed as operating cash flows.

Other Receivables

Other receivables are recognised at amortised cost, less any provision for expected credit loss. Other receivables do not contain impaired assets and are not past due. Based on the credit history, it is expected that these other balances will be received when due.

NOTE 10 EXPLORATION AND EVALUATION EXPENDITURE

	Note	2020 \$	2019 \$
Carrying amount of exploration and evaluation expenditure		2,556,980	526,001
At the beginning of the period		526,001	375,541
Exploration expenditure incurred		1,195,871	438,127
Vulcan Lithium Project acquisition	14	1,121,125	-
Impairment expense		(286,017)	(287,667)
At the end of the period		2,556,980	526,001

Accounting Policy

Acquisition, exploration and evaluation costs associated with mining tenements are accumulated in respect of each identifiable area of interest. These costs are only carried forward to the extent that the rights of tenure to that area of interest are current and that the costs are expected to be recouped through the successful commercial development or sale of the area or where activities in the area have not yet reached a stage that permits reasonable assessment of the existence of economically recoverable reserves.

Costs in relation to an abandoned area are written off in full against profit in the period in which the decision to abandon the area is made.

Each area of interest is also reviewed annually, and acquisition costs written off to the extent that they will not be recoverable in the future.

NOTE 11 TRADE AND OTHER PAYABLES

	2020 \$	2019 \$
Trade payables ⁽ⁱ⁾	85,903	65,944
Accrued expenses	74,335	51,000
Other payables	61,684	-
	221,922	116,944

Trade payables are non-interest bearing and are normally settled on 30-day terms.

Due to the short-term nature of these payables, their carrying value is assumed to be the same as their fair value.

Accounting Policy

Trade payables and other payables represent liabilities for goods and services provided to the Group prior to the end of the financial year which are unpaid. The amounts are unsecured and are usually paid within 30 days of recognition.

NOTE 12 CONTRIBUTED EQUITY

(a) Issued and fully paid

	2020		2019	
	No.	\$	No.	\$
Ordinary shares	67,217,755	11,836,741	31,750,001	4,746,416

Ordinary shares entitle the holder to participate in the dividends and the proceeds on winding up in proportion to the number of and amounts paid on the shares held.

At shareholders meetings, each ordinary share is entitled to one vote when a poll is called, otherwise each shareholder has one vote on a show of hands.

(b) Movement reconciliation	Date	Issue		
		Number	Price	\$
At 1 July 2019		31,750,001		4,746,416
At 30 June 2020		67,217,755		11,836,741
At 1 July 2019	1/07/2019	31,750,001		4,746,416
Placement to sophisticated investors	10/07/2019	2,820,000	\$0.15	423,000
Placement to sophisticated investors	19/07/2019	3,513,334	\$0.15	527,000
Shares issued for services rendered	5/08/2019	1,000,000	\$0.20	200,000
Shares to Vendors and Introducers as part of consideration for the Acquisition	4/09/2019	7,666,667	\$0.15	1,150,000
Shares issued to Director to incentive performance and retain services	4/09/2019	750,000	\$0.15	112,500
Share issue to Director for participation in Placement	4/09/2019	1,000,000	\$0.15	150,000
Less Capital raising costs	-	-	-	(58,425)
Conversion of Class A performance shares and Class D performance rights	28/02/2020	5,170,000	-	-
Conversion of Class A performance rights	30/06/2020	800,000	-	-
Conversion of Class A performance shares	30/06/2020	480,000	-	-
Conversion of listed options	30/06/2020	267,753	\$0.285	76,310
Placement to sophisticated investors	30/06/2020	12,000,000	\$0.40	4,800,000
Less Capital raising costs	30/06/2020	-	-	(290,060)
At 30 June 2020		67,217,755		11,836,741

Accounting Policy

Ordinary shares are classified as equity.

Incremental costs directly attributable to the issue of new shares or options are shown in equity as a deduction, net of tax, from the proceeds. Incremental costs directly attributable to the issue of new shares or options for the acquisition of a business are not included in the cost of the acquisition as part of the purchase consideration.

If the entity reacquires its own equity instruments, for example, as a result of a share buy-back, those instruments are deducted from equity and the associated shares are cancelled. No gain or loss

is recognised in the profit or loss and the consideration paid including any directly attributable incremental costs (net of income taxes) is recognised directly in equity.

NOTE 13 RESERVES

	2020	2019
	\$	\$
Share-based payment reserve	1,741,986	164,013
Foreign currency translation reserve	(22,016)	-
Total	1,719,970	164,013

Movement reconciliation

Share-based payment reserve

Balance at the beginning of the year	164,013	-
Issue of listed options	-	126,875
Option issue costs	-	(25,000)
Equity settled share-based payment transactions (Note 16)	1,577,973	62,138
Balance at the end of the year	1,741,986	164,013

Share-based payment reserve

The option reserve is used to record the value of share-based payments provided to outside parties, and share-based remuneration provided to employees and directors.

	2020	2019
	\$	\$
Foreign Currency Translation Reserve		
Balance at the beginning of the year	-	-
Movement during the year	(22,016)	-
Balance at the end of the year	(22,016)	-

NOTE 14 ACQUISITION OF SUBSIDIARY

On 4 September 2019, the Company successfully completed its acquisition of 100% of the issued capital of Vulcan Energy Resources Europe Pty Ltd ("the Vulcan Lithium Project"). The acquisition was assessed as an asset acquisition rather than a business combination. The Company issued 6,666,667 fully paid ordinary shares in the Company to the Vendors, Dr Wedin and Dr Horst Kreuter to acquire the asset.

	4 September 2019
	\$
Purchase consideration	1,000,000
Fair value of shares issued	1,000,000

Fair value of net assets acquired are as follows:

Cash and cash equivalents	404
Exploration and evaluation expenditure	1,121,125
Trade and other payables	(121,529)
	1,000,000

NOTE 15 FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES

The Group's activities expose it to a variety of financial risks: market risk (including foreign exchange risk and interest rate risk), credit risk and liquidity risk. The Group's overall risk management

programme focuses on the unpredictability of the financial markets and seeks to minimise potential adverse effects on the financial performance of the Group. The Group uses different methods to measure and manage different types of risks to which it is exposed.

These include monitoring levels of exposure to interest rate and foreign exchange risk and assessments of market forecasts for interest rate and foreign exchange prices. Ageing analysis and monitoring of specific credit allowances are undertaken to manage credit risk. Liquidity risk is monitored through the development of future cash flow forecasts.

Risk management is carried out by Management and overseen by the Board of Directors with assistance from suitably qualified external advisors.

The main risks arising for the Group are foreign exchange risk, interest rate risk, credit risk and liquidity risk. The Board reviews and agrees policies for managing each of these risks and they are summarised below.

The carrying values of the Group's financial instruments are as follows:

	2020	2021
	\$	\$
Financial Assets		
Cash and cash equivalents	6,421,557	3,348,996
Trade and other receivables	116,071	35,063
	6,537,628	3,384,059
Financial Liabilities		
Trade and other payables	221,922	116,944
	221,922	116,944

(a) Market risk

(i) Foreign exchange risk

The Group was not significantly exposed to foreign currency risk fluctuations.

(ii) Interest rate risk

The Group is exposed to interest rate risk, which is the risk that a financial instrument's value will fluctuate as a result of changes in the market interest rates on interest bearing financial instruments. The Group's exposure to this risk relates primarily to the Group's cash and any cash on deposit. The Group does not use derivatives to mitigate these exposures. The Group manages its exposure to interest rate risk by holding certain amounts of cash in fixed and floating interest rate facilities. At the reporting date, the interest rate profile of the Group's interest-bearing financial instruments was:

	2020		2019	
	Weighted average interest rate	Balance \$	Weighted average interest rate	Balance \$
Cash and cash equivalents	0.08%	6,421,557	1.68%	3,348,996

Sensitivity

Within the analysis, consideration is given to potential renewals of existing positions and the mix of fixed and variable interest rates. The following sensitivity analysis is based on the interest rate risk exposures in existence at the reporting date. The 1% increase and 1% decrease in rates is based on reasonably expected possible changes over a financial year.

At 30 June 2020, if interest rates had moved, as illustrated in the table below, with all other variables held constant, losses and equity would have been affected as follows:

<i>Judgements of reasonably possible movements:</i>	Profit higher/(lower) 2020 \$	Profit higher/(lower) 2019 \$
+ 1.0% (100 basis points)	64,216	33,490
- 1.0% (100 basis points)	(64,216)	(33,490)

(b) Credit risk

Credit risk arises from the financial assets of the Group, which comprise cash and cash equivalents, trade and other receivables and other financial assets. The Group's exposure to credit risk arises from potential default of the counterparty, with maximum exposure equal to the carrying amount of the financial assets.

The Group's policy is to trade only with recognised, creditworthy third parties. It is the Group's policy that all customers who wish to trade on credit terms will be subject to credit verification procedures.

In addition, receivable balances are monitored on an ongoing basis with the result that the Group's exposure to bad debts is not significant. There are no significant concentrations of credit risk within the Group except for cash and cash equivalents.

(c) Liquidity risk

Liquidity risk is the risk that the Group will not be able to meet its financial obligations as they fall due. The Group's approach to managing liquidity is to ensure, as far as possible, that it will always have sufficient liquidity to meet its liabilities when due, under both normal and stressed conditions, without incurring unacceptable losses or risking damage to its reputation.

The Group manages liquidity risk by maintaining adequate cash reserves from funds raised in the market and by continuously monitoring forecast and actual cash flows. The Group does not have any external borrowings.

The following are the contractual maturities of financial liabilities:

	1 year or less \$	1-5 years \$	> 5 years \$	Total \$
2020				
Trade and other payables	221,922	-	-	221,922
2019				
Trade and other payables	116,944	-	-	116,944

(d) Capital risk management

The Group's objectives when managing capital are to:

- Safeguard their ability to continue as a going concern, so that it can continue to provide returns for shareholders and benefits for other stakeholders; and
- Maintain an optimal capital structure to reduce the cost of capital.

In order to maintain or adjust the capital structure, the Group may adjust the number of dividends paid to shareholders, return capital to shareholders, issue new shares or sell assets to reduce debt.

Given the stage of the Company's development there are no formal targets set for return on capital. The Company is not subject to externally imposed capital requirements. The net equity of the Company is equivalent to capital. Net capital is obtained through capital raisings on the Australian Securities Exchange ("ASX").

NOTE 16 SHARE BASED PAYMENTS

	2020 \$	2019 \$
Share based payment- investor relationship	200,000	-
Share based payment- introducer fee	150,000	-
	350,000	-
Performance rights issued to Directors ⁽ⁱ⁾	626,942	62,138
Performance shares issued to Vendors of Acquisition ⁽ⁱⁱ⁾	888,348	-
Shares issued for consideration of services ⁽ⁱⁱⁱ⁾	112,500	-
Performance rights issued to staff ^(iv)	62,684	-
	1,690,473	62,138

- (i) In the prior year, 3,900,000 performance rights were granted and issued to directors. The value of each rights as set out below in the summary of performance rights granted. These were issued on 20 December 2018.

On 4 September 2019, the Company issued 3,750,000 performance rights to Mr Gavin Rezos as an incentive in connection with his appointment as Chairman. A share-based payment expense has been recognised in the Statement of Profit or Loss and Other Comprehensive Income.

	Class A	Class B	Class C	Class D	Class E	Class F
Fair value of each right	\$0.1463	\$0.1124	\$0.0906	\$0.1500	\$0.1500	\$0.1500
Expected volatility	90%	90%	90%	N/A	N/A	N/A
Grant date	30/11/2018	30/11/2018	30/11/2018	4/09/2019	4/09/2019	4/09/2019
Price at grant date	\$0.18	\$0.18	\$0.18	\$0.15	\$0.15	\$0.15
Expiry date	30/11/2021	30/11/2021	30/11/2021	4/09/2020	4/09/2021	4/09/2022
Vesting hurdle (5-day VWAP)	\$0.40	\$0.75	\$1.10	N/A	N/A	N/A
Interest rate	2.06%	2.06%	2.06%	N/A	N/A	N/A
Number of Rights	1,200,00	1,200,000	1,500,000	1,250,000	1,250,000	1,250,000
Total value of rights	\$175,560	\$134,880	\$135,900	\$187,500	\$187,500	\$187,500

- (ii) On 4 September 2019, the Company issued 13,200,000 Performance Shares (PS) issued to Vendors of the Vulcan Lithium Project Acquisition which will each convert into a Share on a one for one basis on the satisfaction of milestones. Based on management assessment, percentage of a share-based payment expense has been recognised in the Statement of Profit or Loss and Other Comprehensive Income.

	Class A	Class B	Class C
Fair value of each PS	\$0.15	\$0.15	\$0.15
Expected volatility	N/A	N/A	N/A
Grant date	4/09/2019	4/09/2019	4/09/2019
Price at grant date	\$0.15	\$0.15	\$0.15
Expiry date	4/09/2020	4/09/2021	4/09/2022
Vesting hurdle (5-day VWAP)	N/A	N/A	N/A
Interest rate	N/A	N/A	N/A
Number of PS	4,400,000	4,400,000	4,400,000
Total value of PS	\$660,000	\$660,000	\$660,000

- (iii) 750,000 ordinary shares issued to Gavin Rezos to incentivise the continued performance and to assist the Company in retaining his services and expertise. A share-based payment expense has been recognised in the Statement of Profit or Loss and Other Comprehensive Income.
- (iv) On 18 May 2020, the Company issued 1,250,000 performance rights to staff as incentive in connection with their appointment. A share-based payment expense has been recognised in the Statement of Profit or Loss and Other Comprehensive Income.

	Class G	Class H	Class I
Fair value of each right	\$0.225	\$0.225	\$0.225
Expected volatility	N/A	N/A	N/A
Grant date	11/05/2020	11/05/2020 & 14/5/2020	14/05/2020
Price at grant date	\$0.225	\$0.225	\$0.225
Expiry date	1/12/2023	1/12/2023	1/12/2023
Vesting hurdle (5-day VWAP)	N/A	N/A	N/A
Interest rate	N/A	N/A	N/A
Number of Rights	250,000	500,000	500,000
Total value of rights	\$56,250	\$112,500	\$112,500

Terms and conditions of Performance rights:

Tranche	Terms
Class A	Will vest if, at any time within 36 months following grant date of the Rights the VWAP of the Company's shares traded on the ASX over five (5) consecutive trading days is equal to or greater than \$0.40.
Class B	Will vest if, at any time within 36 months following grant date of the Rights the VWAP of the Company's shares traded on the ASX over five (5) consecutive trading days is equal to or greater than \$0.75.
Class C	Will vest if, at any time within 36 months following grant date of the Rights the VWAP of the Company's shares traded on the ASX over five (5) consecutive trading days is equal to or greater than \$1.10.
Class D	Vest immediately and convert into Shares on the Company announcing a positive scoping study in relation to the Vulcan Lithium Project, confirming the Vulcan Lithium Project is commercially viable within 12 months of completion of the Acquisition.
Class E	Vest immediately and will convert into shares on the Company announcing a positive preliminary feasibility study in relation to the Vulcan Lithium Project, confirming the Vulcan Lithium Project is commercially viable within 24 months of completion of the Acquisition.
Class F	Vest immediately and will convert into shares on the Company announcing that it has secured either an offtake agreement representing a minimum of 30% of production volume over a three year term, or a downstream joint venture partner with a minimum \$10,000,000 investment in relation to the Vulcan Lithium Project within 36 months of completion of the Acquisition.
Class G	Will vest upon the holder completing six months continuous employment with the Company, with an expiry date of 1 December 2023.
Class H	Will vest upon the Company announcing a positive preliminary feasibility study in relation to the Vulcan Lithium Project, confirming the Lithium Project is commercially viable within two years of issue of the Performance Rights, with an expiry date of 1 December 2023.
Class I	Will vest upon the Company announcing that it has secured either an off-take agreement representing a minimum of 30% of production volume over a three year term, or a downstream lithium chemicals joint venture partner with a minimum \$10,000,000 investment in relation to the Vulcan Lithium Project within three years of issue of the Performance Rights, with an expiry date of 1 December 2023.

Set out below are summaries of performance rights granted under the plan:

30 June 2020

Grant date	Expiry date	Balance at the start of the year	Granted	Exercised	Expired/ forfeited/ other	Balance at the end of the year
30/11/2018 18/5/2020	30/11/2021 1/12/2023	3,900,000	-	(800,000)	(2,600,000)	500,000
			1,250,000			1,250,000
		3,900,000	1,250,000	(800,000)	(2,600,000)	1,750,000

Accounting Policy

Equity-settled and cash-settled share-based compensation benefits are provided to Key Management Personnel and employees.

Equity-settled transactions are awards of shares, or options over shares, that are provided to employees in exchange for the rendering of services. Cash-settled transactions are awards of cash for the exchange of services, where the amount of cash is determined by reference to the share price.

The cost of equity-settled transactions are measured at fair value on grant date. Fair value is independently determined using an appropriate valuation model that takes into account the exercise price, the term of the option, the impact of dilution, the share price at grant date and expected price volatility of the underlying share, the expected dividend yield and the risk free interest rate for the term of the option, together with non-vesting conditions that do not determine whether the consolidated entity receives the services that entitle the employees to receive payment. No account is taken of any other vesting conditions.

The cost of equity-settled transactions are recognised as an expense with a corresponding increase in equity over the vesting period. The cumulative charge to profit or loss is calculated based on the grant date fair value of the award, the best estimate of the number of awards that are likely to vest and the expired portion of the vesting period. The amount recognised in profit or loss for the period is the cumulative amount calculated at each reporting date less amounts already recognised in previous periods.

The cost of cash-settled transactions is initially, and at each reporting date until vested, determined by applying an appropriate valuation model, taking into consideration the terms and conditions on which the award was granted. The cumulative charge to profit or loss until settlement of the liability is calculated as follows:

- a. During the vesting period, the liability at each reporting date is the fair value of the award at that date multiplied by the expired portion of the vesting period.
- b. From the end of the vesting period until settlement of the award, the liability is the full fair value of the liability at the reporting date.

All changes in the liability are recognised in profit or loss. The ultimate cost of cash-settled transactions is the cash paid to settle the liability.

Market conditions are taken into consideration in determining fair value. Therefore, any awards subject to market conditions are considered to vest irrespective of whether or not that market condition has been met, provided all other conditions are satisfied.

If equity-settled awards are modified, as a minimum an expense is recognised as if the modification has not been made. An additional expense is recognised, over the remaining vesting period, for any modification that increases the total fair value of the share-based compensation benefit as at the date of modification.

If the non-vesting condition is within the control of the consolidated entity or employee, the failure to satisfy the condition is treated as a cancellation. If the condition is not within the control of the consolidated entity or employee and is not satisfied during the vesting period, any remaining expense for the award is recognised over the remaining vesting period, unless the award is forfeited.

If equity-settled awards are cancelled, it is treated as if it has vested on the date of cancellation, and any remaining expense is recognised immediately. If a new replacement award is substituted for the cancelled award, the cancelled and new award is treated as if they were a modification.

NOTE 17 RELATED PARTY DISCLOSURE

(a) Key Management Personnel Compensation

The aggregate compensation made to directors and other members of key management personnel of the consolidated entity is set out below

	2020	2019
	\$	\$
Short-term benefits	471,534	259,998
Post-employment benefits	20,443	-
Share-based payments	384,616	62,138
	876,593	322,136

(b) Transactions with related parties

Terms and conditions

All transactions were made on normal commercial terms and conditions and at market rates.

During the financial year 6,666,667 fully paid ordinary shares in the Company were issued to the shareholders of Vulcan, Dr Francis Wedin and Dr Horst Kreuter (Vendors) (Consideration Shares) and;

13,200,000 Performance Shares to be issued to the Vendors, which will each convert into a Share on a one for one basis on satisfaction the following milestones:

- 4,400,000 Shares on satisfaction of Milestone 1;
- 4,400,000 Shares on satisfaction of Milestone 2; and
- 4,400,000 Shares on satisfaction of Milestone3.

During the financial year, payments for engineering services of €77,035, (A\$130,128) were made to GeoThermal Engineering GmbH, a related party of Horst Krueter. Dr Kreuter was paid \$43,474 consulting fees prior to becoming a Director of the Company. There was no trade payable balance at 30 June 2020.

During the financial year, payments for corporate advisory services outside of Australia of \$73,185 were made to Viaticus Capital, a related party of Mr Rezos. Viaticus Capital also received fees of \$18,000 for capital raising fees associated with a placement undertaken in June 2020. There was \$33,000 trade payable/accrual balance at 30 June 2020.

There were no related party transactions during the previous financial year.

There were no loans made to any KMP during the year ended 30 June 2020 (2019: Nil).

Other than the above, there were no other transactions with KMP during the year ended 30 June 2020.

NOTE 18 COMMITMENTS

Below are the commitments in relation to its exploration and evaluation assets:

	2020	2019
	\$	\$
Within one year	163,639	-
One to five years	163,639	-
	327,278	-

NOTE 19 CONTINGENCIES

As part of the acquisition of Koppar Resources Europe Pty Ltd in the prior year, the Company agrees that:

- (a) Upon completion of a scoping study by Koppar for the development of any of the Projects where a JORC compliant measured, indicated or inferred resource is identified at any of the Projects, the Company will issue 4,000,000 fully paid ordinary shares in the capital of Koppar at a deemed issue price of \$0.20 per Share to the Shareholders; and
- (b) Upon completion of a definitive feasibility study for the development of any of the Projects based on a JORC compliant measured or indicated resource being identified at any of the Projects, it will issue 4,000,000 fully paid ordinary shares in the capital of Koppar at a deemed issue price of \$0.20 per Share to the Shareholders.

As part of the acquisition of Vulcan Lithium Project, the Company agrees to pay the following by way of an introduction and facilitation fees:

1,980,000 ordinary shares to be issued as follows:

- (a) 660,000 ordinary shares to be issued on satisfaction of Milestone 1;
- (b) 660,000 ordinary shares to be issued on satisfaction of Milestone 2; and
- (c) 660,000 ordinary shares to be issued on satisfaction of Milestone 3.

As part of the acquisition of Vulcan Lithium Project, the Company agrees to pay the following by way of deferred consideration of remaining 8,800,000 (13,200,000 less 4,400,000) Performance Shares to be issued to the Vendors, which will each convert into a Share on a one for one basis on satisfaction the following milestones:

- 4,400,000 Shares on the Company announcing a positive preliminary feasibility study in relation to the Vulcan Lithium Project, confirming the Vulcan Lithium Project is commercially viable within 24 months of completion of the Acquisition (Milestone 2); and
- 4,400,000 Shares on the Company announcing that it has secured an off-take agreement representing a minimum of 30% of production volume over a three year term, or a downstream joint venture partner with a minimum \$10,000,000 investment in relation to the Vulcan Lithium Project within 36 months of completion of the Acquisition (Milestone 3), (together, the Deferred Consideration).

Other than the above, there are no other contingent assets or contingent liabilities as at 30 June 2020.

NOTE 20 AUDITOR'S REMUNERATION

	2020 \$	2019 \$
Amounts received or due and receivable by RSM Australia Partners for:		
Audit and review of the annual and half-year financial report	31,500	25,000
Other services - RSM Australia Pty Ltd for:		
Other	-	1,500
	31,500	26,500

NOTE 21 ACCUMULATED LOSSES

	2020 \$	2019 \$
Balance at beginning of the year	(1,117,313)	(280,649)
Loss after income tax for the year	(3,553,359)	(836,664)
Balance at end of the year	(4,670,672)	(1,117,313)

NOTE 22 INVESTMENT IN CONTROLLED ENTITIES

	Principal Activities	Country of Incorporation	Ownership Interest 2020 %	Ownership Interest 2019 %
Koppar Resources Europe Pty Ltd	Exploration	Australia	100	100
Vulcan Energy Resources Europe Pty Ltd	Exploration	Australia	100	-
Vulcan Energie Ressourcen GmbH	Exploration	Germany	100	-

NOTE 23 PARENT ENTITY

	2020 \$	2019 \$
Assets		
Current assets	6,330,432	3,379,725
Non-current assets	2,745,876	530,607
Total assets	9,076,308	3,910,332
Liabilities		
Current liabilities	190,270	117,216
Total liabilities	190,270	117,216
Equity		
Contributed equity	11,836,741	4,746,416
Reserves	1,741,986	164,013
Accumulated losses	(4,692,689)	(1,117,313)
Total equity	8,886,038	3,793,116
Loss for the year	(3,575,376)	(836,213)

Total comprehensive loss

<u>(3,575,376)</u>	<u>(836,213)</u>
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Contingent liabilities

Other than disclosed at Note 19, the parent entity has no other contingent assets or contingent liabilities as at 30 June 2020 and 30 June 2019.

Capital commitments - Property, plant and equipment

The parent entity had no capital commitments for property, plant and equipment as at 30 June 2020 and 30 June 2019.

Exploration commitments

The parent entity has no exploration commitments.

Significant accounting policies

The accounting policies of the parent entity are consistent with those of the consolidated entity, as disclosed in the financial statements, except for the following:

- Investments in subsidiaries are accounted for at cost, less any impairment, in the parent entity.

NOTE 24 EVENTS AFTER THE REPORTING DATE

On 8 July 2020, the Company announced it had signed an Investment agreement with EU-backed EIT InnoEnergy for staged cash investments into Vulcan, with initial tranche valued at A\$0.51/share, equivalent to the 15-day VWAP and at an 8.5% premium to 30-day VWAP, subject to shareholder approval.

EIT InnoEnergy will provide the following staged payments to Vulcan Energie Ressourcen GmbH, the Company's 100%-owned German subsidiary (Subsidiary):

- (a) an initial payment of €150,000 (Tranche 1, equivalent to \$245,534 at current exchange rates).
- (b) further payment of €50,000 after approval by EIT InnoEnergy of the financial and performance reporting related to expenditure of Tranche 1 funding on approved work packages Tranche 2).
- (c) a final settlement of €50,000 of approved funding after approval by EIT InnoEnergy of the final financial and performance reporting for the expenditure of Tranche 1 and Tranche 2 funding

The Company has agreed to grant Warrants to EIT InnoEnergy on payment of each Tranche of funding, in the following amounts:

- (a) Tranche 1: 479,519 Warrants subject to shareholder approval (being the Australian dollar amount of the Tranche 1 funding, divided by \$0.512, which was the volume weighted average price (VWAP) for Shares over the last 15 days on which Shares were traded immediately prior to execution of the funding agreements; and
- (b) Tranches 2 and 3: the number equal to the Australian dollar amount of the relevant Tranche of funding, divided by the VWAP for Shares over the last 15 days on which Shares were traded immediately prior to EIT InnoEnergy paying the relevant Tranche of the funding.

Shareholder approval for Tranche 1 warrants was received on 10 September 2020. and 479,519 warrants were issued on 16 September 2020. The Warrants will convert into Shares on a one for one basis on exercise.

On 31 July 2020 the Company appointed London-based Natural Resources Global Capital Partners Limited ("NRG") to provide strategic and financial advice in connection with the Vulcan's Zero Carbon Lithium™ Project. NRG will assist Vulcan with financial advice related to potential future transactions surrounding funding for its Definitive Feasibility Study ("DFS") and first commercial lithium hydroxide production plant.

On 3 August 2020 the Company announced that Lithium concentrate has been successfully produced from Upper Rhine Valley geothermal brine during a series of successful benchscale Direct Lithium Extraction (DLE) tests commissioned by Vulcan. Two different, pre-selected DLE adsorbents were tested and in both cases the lithium recovery rate exceeded 90% on first pass. The tested DLE adsorbents are of a type already used commercially on lithium brines worldwide, which reduces development risk, in line with Vulcan's strategy of utilising established technologies.

On 1 September 2020 the Company announced that Dr. Katharina Gerber has accepted an executive role as Project Manager with the Company, and relocated with her family from California back to Germany to focus on developing the Zero Carbon Lithium™ Project full time.

On 31 August Vulcan announced the grant of its Taro License in the Vulcan Zero Carbon Lithium™ Project area in the Upper Rhine Valley, and maiden Taro Licence Inferred Resource estimate. In conjunction with this, Vulcan has re-totaled the collective Mineral Resource estimations for the Upper Rhine Valley Project (URVP) area within the Zero Carbon Lithium™ Project.

The Taro license area has been granted to Global Geothermal Holding UG (GGH), with which Vulcan has agreement to earn a 51% interest by spending €500,000 within two years of the license grant (Initial Expenditure). After the Initial Expenditure, a Joint Venture will be formed, with Vulcan owning 51% and GGH 49%. Vulcan will then spend a further €500,000 to earn a further 29% (Second Earn-In Expenditure) with two years, to take its JV interest to 80%. Once VER has spent the minimum amount and has taken its share to 80%, GGH can elect to co-fund the project pro rata, or be diluted by an industry-standard formula whilst Vulcan continues to develop the project. Should GGH be diluted below 5%, its share will be converted to a non-diluting 2% net royalty.

On 10 September 2020 the Company held a General Meeting and approved the following resolutions:-

Resolution 1 Ratification of Issue of Placement Shares issued under Listing Rule 7.1

Resolution 2 – Ratification of Issue of Placement Shares issued under Listing 7.1A

Resolution 3 – Issue of Broker Options to Merchant Group

Resolution 4 – Issue of Milestone 1 Deferred Introducer Shares

Resolution 5 – Issue of Tranche 1 Warrants to EIT InnoEnergy

Resolution 6 – Issue of Performance Rights to Mr Gavin Rezos

Resolution 7 – Issue of Performance Rights to Dr Horst Kreuter

The grant of Performance Rights to Mr Rezos and Mr Kreuter comprised of:-

Class M Performance Rights	1,500,000 to Dr Kreuter (or his nominee)	Vesting on issue, and converting to Shares on a one for one basis on the Company announcing, on or before 21 May 2021, a positive Pre-Feasibility Study in relation to the Company's Zero Carbon Lithium™ Project confirming it is commercially viable.
Class N Performance Rights	1,500,000 to Dr Kreuter (or his nominee)	Vesting on issue, and converting to Shares on a one for one basis on the Company announcing, on or before 21 May 2022, that it has secured either an off-take agreement representing a minimum of 30% of production volume over a three year term, or a downstream lithium chemicals joint venture partner with a minimum of \$10,000,000 investment in relation to the Project.
Class J Performance Rights	1,500,000 to Dr Kreuter (or his nominee) 1,000,000 to Mr Rezos	Vesting on issue, and converting to Shares on a one for one basis once both of the following have been satisfied: <ul style="list-style-type: none"> the Company announcing, within 36 months from the date of issue, a positive Definitive Feasibility Study in relation to the Project confirming it is commercially viable; and the VWAP for Shares as traded on ASX over 20 consecutive trading days is equal to or greater than 225% of the VWAP for Shares for the last 5 trading days up to but not including the date of the Meeting (the Reference Price).
Class K Performance Rights	1,000,000 to Mr Rezos (or his nominee)	Vesting on issue, and converting to Shares on a one for one basis once both of the following have been satisfied: <ul style="list-style-type: none"> the Company announcing, within 36 months from the date of issue, a positive Pre-Feasibility Study in relation to the Company's Zero Carbon Lithium™ Project confirming it is commercially viable; and the VWAP for Shares as traded on ASX over 20 consecutive trading days is equal to or greater than 150% of the Reference Price.
Class L Performance Rights	1,000,000 to Mr Rezos (or his nominee)	Once both of the following have been satisfied: <ul style="list-style-type: none"> the Company announcing, within 36 months from the date of issue, that it has secured either an off-take agreement representing a minimum of 30% of production volume over a three year term, or a downstream lithium chemicals joint venture partner with a minimum of \$10,000,000 investment in relation to the Project; and the VWAP for Shares as traded on ASX over 20 consecutive trading days is equal to or greater than 200% of the Reference Price.

On 16 September 2020 the Company issued the securities approved at the 10 September General Meeting along with 1,250,000 performance rights to senior management personnel (refer ASX announcement 16 September 2020 for further details).

Directors' Declaration

In the Directors' opinion:

- (a) The financial statements and accompanying notes are in accordance with the Corporations Act 2001, including:
 - (i) complying with Australian Accounting Standards, the Corporations Regulations 2001 and other mandatory professional reporting requirements; and
 - (ii) giving a true and fair view of the consolidated entity's financial position as at 30 June 2020 and of its performance for the financial year ended on that date.
- (b) The financial statements and notes comply with International Financial Reporting Standards.
- (c) There are reasonable grounds to believe that the Company will be able to pay its debts as and when they become due and payable.

The Directors have been given the declarations required by section 295A of the Corporations Act 2001.

This declaration is made in accordance with a resolution of the Board of Directors made pursuant to section 295(5)(a) of the Corporations Act 2001 and is signed for and on behalf of the Directors by:

A handwritten signature in black ink, appearing to read 'Gavin Rezos', with a stylized flourish at the end.

Gavin Rezos
Chairman

30 September 2020

18.4.6 Independent Auditor's Report

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF VULCAN ENERGY RESOURCES LIMITED

Opinion

We have audited the financial report of Vulcan Energy Resources Limited (the Company) and its subsidiaries (the Group), which comprises the consolidated statement of financial position as at 30 June 2020, the consolidated statement of profit or loss and other comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies, and the directors' declaration.

In our opinion, the accompanying financial report of the Group is in accordance with the Corporations Act 2001, including:

- (i) Giving a true and fair view of the Group's financial position as at 30 June 2020 and of its financial performance for the year then ended; and
- (ii) Complying with Australian Accounting Standards and the Corporations Regulations 2001.

Basis for Opinion

We conducted our audit in accordance with Australian Auditing Standards. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Report section of our report. We are independent of the Group in accordance with the auditor independence requirements of the Corporations Act 2001 and the ethical requirements of the Accounting Professional and Ethical Standards Board's APES 110 Code of Ethics for Professional Accountants (the Code) that are relevant to our audit of the financial report in Australia. We have also fulfilled our other ethical responsibilities in accordance with the Code.

We confirm that the independence declaration required by the Corporations Act 2001, which has been given to the directors of the Company, would be in the same terms if given to the directors as at the time of this auditor's report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial report of the current period. These matters were addressed in the context of our audit of the financial report as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key Audit Matter	How our audit addressed this matter
Exploration and Evaluation Expenditure Refer to Note 10 in the financial statements	
The Group has capitalised exploration and evaluation expenditure with a carrying value of \$2,556,980 as at 30 June 2020.	Our audit procedures included: <ul style="list-style-type: none">Ensuring that the right to tenure of the area of interest was current;

<p>We considered this to be a key audit matter due to the significant management judgments involved in assessing the carrying value of the asset including:</p> <ul style="list-style-type: none"> • Determination of whether the exploration and evaluation expenditure can be associated with finding specific mineral resources and the basis on which that expenditure is allocated to an area of interest; • Assessing whether any indicators of impairment are present and if so, judgement applied to determine and quantify any impairment loss; and • Assessing whether exploration activities have reached a stage at which the existence of economically recoverable reserves may be determined. 	<ul style="list-style-type: none"> • Agreeing a sample of additions to supporting documentation and ensuring the amounts are capital in nature and relate to the area of interest; • Assessing that the impairment expense recognised for the year ended was appropriately calculated; • Assessing and evaluating management's assessment of whether indicators of impairment existed at the reporting date; • Enquiring with management and reviewing budgets and other documentation as evidence that active and significant operations in, or relation to, the area of interest will be continued in the future; and • Through discussions with the management and review of the Board Minutes, ASX announcements and other relevant documentation, assessing management's determination that exploration activities have not yet progressed to the stage where the existence or otherwise of economically recoverable reserves may be determined.
<p>Acquisition of Vulcan Energy Resources Europe Pty Ltd Refer to Note 14 in the financial statements</p>	
<p>On 4 September 2019, the Group acquired a 100% interest in Vulcan Energy Resources Europe Pty Ltd for a consideration of \$1,000,000.</p> <p>Accounting for this acquisition is a key audit matter as it involves management judgements in determining the acquisition date, the acquisition accounting treatment, the fair value of net assets acquired and the fair value of the purchase consideration.</p>	<p>Our audit procedures included:</p> <ul style="list-style-type: none"> • Reviewing the acquisition agreement to understand key terms and conditions; • Evaluating the management determination that the acquisition did not meet the definition of a business within AASB 3 Business Combinations and therefore was an asset acquisition as opposed to a business combination; • Assessing management's determination of the acquisition date, fair value of consideration paid and the fair value of the net assets acquired; and • Reviewing the adequacy and accuracy of the relevant disclosures in the financial statements.

Other Information

The directors are responsible for the other information. The other information comprises the information included in the Group's annual report for the year ended 30 June 2020, but does not include the financial report and the auditor's report thereon.

Our opinion on the financial report does not cover the other information and accordingly we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial report, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial report or our knowledge obtained in the audit or otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of the Directors for the Financial Report

The directors of the Company are responsible for the preparation of the financial report that gives a true and fair view in accordance with Australian Accounting Standards and the Corporations Act 2001 and for such internal control as the directors determine is necessary to enable the preparation of the financial report that gives a true and fair view and is free from material misstatement, whether due to fraud or error.

In preparing the financial report, the directors are responsible for assessing the ability of the Group to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Group or to cease operations, or have no realistic alternative but to do so.

Auditor's Responsibilities for the Audit of the Financial Report

Our objectives are to obtain reasonable assurance about whether the financial report as a whole is free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the Australian Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of this financial report.

A further description of our responsibilities for the audit of the financial report is located at the Auditing and Assurance Standards Board website at: https://www.auasb.gov.au/auditors_responsibilities/ar2.pdf. This description forms part of our auditor's report.

Report on the Remuneration Report

Opinion on the Remuneration Report

We have audited the Remuneration Report included in the directors' report for the year ended 30 June 2020. In our opinion, the Remuneration Report of Vulcan Energy Resources Limited, for the year ended 30 June 2020, complies with section 300A of the Corporations Act 2001.

Responsibilities

The directors of the Company are responsible for the preparation and presentation of the Remuneration Report in accordance with section 300A of the Corporations Act 2001. Our responsibility is to express an opinion on the Remuneration Report, based on our audit conducted in accordance with Australian Auditing Standards.

RSM AUSTRALIA PARTNERS

Perth, WA
Dated: 30 September 2020

TUTU PHONG
Partner

Vulcan Zero Carbon Lithium™ Independent
Expert Report
21 April 2023

Authors:

Kim Mohler, P.Eng.

Mark King, Ph.D, P.Geo.

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1. Introduction

This Independent Expert Report (“IER” or “Competent Person Report”) has been prepared by Competent Persons (CPs) from GLJ Ltd. and Groundwater Insight Inc. at the request of Vulcan Energy Resources Ltd. (Vulcan, VER or the Company). Vulcan is a public company with its corporate headquarters in Perth, Western Australia, and geothermal power operations and lithium development projects in Germany. Vulcan has been listed on the Australian Securities Exchange (ASX) since 30.05.2018 and in the regulated market (Prime Standard) of the Frankfurt Stock Exchange since 15.02.2022.

Vulcan’s combined geothermal energy and lithium resource is the largest in Europe based on publicly available, Joint Ore Reserves Committee (JORC) compliant data, with licence areas in the Upper Rhine Valley Brine Field (URVBF), Germany, and in Italy and an application for a further licence within the URVBF of France. Strategically placed in the heart of the European electric vehicle market to decarbonise the supply chain, Vulcan is rapidly advancing the Zero Carbon Lithium™ Project to ensure timely market entry, with the ambition to expand to meet the unprecedented demand that is building in the European markets.

Vulcan has a world-leading multidisciplinary scientific and commercial team who are experts in the fields of lithium chemicals and geothermal renewable energy, who have developed scientific solutions that leverage new and existing technologies to unlock the value of lithium resources in the Upper Rhine Valley (URV). Vulcan has partnered with organisations who share its decarbonisation ambitions and has binding lithium offtake agreements with some of the largest cathode, battery and automakers in the world.

As a company whose business model for the Zero Carbon Lithium™ Project combines a carbon neutral, zero fossil fuels extraction process with renewable energy generation, Vulcan has Environment, Social and Governance (ESG) considerations deeply embedded in its corporate strategy. Vulcan plans to have “net zero” greenhouse gas (GHG) emissions by balancing all aspects of its business model. In addition to lithium production, Vulcan can feed renewable heat and power into the German energy grid, thereby contributing to its decarbonisation.

Vulcan has undertaken a Definitive Feasibility Study (DFS) for its licence areas in and around its geothermal brine-producing core of the URVBF, which represents the Phase One development of its Zero Carbon Lithium™ Project. The DFS is a non-public report as it was prepared for internal use, however the Company released on the ASX an announcement and accompanying presentation summarising the material points on 13 February 2023. The DFS report contains detailed technical data to support Phase One of the Project. Vulcan intends to conduct a DFS in relation to Phase Two of the Project during the course of 2023. The Project will, if implemented as envisaged, help to establish Vulcan as one of the largest strategic suppliers of lithium chemicals in Europe, combined with renewable power and heating.

This IER and the included JORC Table 1 are based on the Vulcan DFS technical report as it relates to Phase One. The primary conclusions of the IER and JORC Table 1 are the same as those presented in

the DFS, but the IER is a summary of key findings of the DFS report, as well as a summary of the URVBF Resources in the surrounding licenses that represent Vulcan's future project pipeline. This IER is a compilation of data from the DFS and URVBF Resource report, data made available by Vulcan, and publicly available data.

2. Background

Vulcan has commissioned a number of companies and engaged internal resources to prepare the DFS for the Vulcan Zero Carbon Lithium™ Project (the Project). In support of the DFS the following companies have provided input, reviewed, and prepared technical components for the project:

- a) Vulcan Group: Vulcan Energy Engineering (VEE) as far as drill site, steam generation, district heating and electric power generation is concerned.
- b) Vulcan Group: Vulcan Energy Subsurface Solutions (VESS) as far as geology, reservoir engineering and drilling is concerned.
- c) Vulcan Group: lithium extraction pilot plant testwork.
- d) Hatch: Lithium Extraction Plant (LEP) and the lithium hydroxide-producing, Central Lithium Plant (CLP) engineering and design.
- e) GEF Ingenieur AG of Leimen, Germany developed for the DFS-Phase One the fluid transportation system meeting LP2 level in accordance with the HOAI and DIN276 respectively on behalf of Vulcan.
- f) GLJ Ltd. (GLJ) reviewed and provided CP services, in collaboration with Groundwater Insight Inc. and Mercator Geological Services.

The definitions and usage of the terms Mineral Resources and Mineral Reserves in this report are consistent with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, referred to as the JORC Code (2012). Independent consultants GLJ and Groundwater Insight Inc. (GII) signed off on the Mineral Ore Resources and Mineral Ore Reserves estimates presented in the DFS, under the JORC 2012 Code (JORC).

The objective of this IER is to provide investors and the public with information regarding the current activities of Vulcan and the results of a DFS for the Phase One district of the Zero Carbon Lithium™ Project. The DFS is a comprehensive technical and economic report that describes all aspects of the Project, including the location, geology, metallurgy, mineral processing, well development plan, regulatory framework, facility and infrastructure design, costs, marketing and economics. The Project will integrate geothermal brine production from wells, geothermal power production and district heating, lithium extraction, and production of lithium hydroxide monohydrate (LHM) for sale to market.

This Independent Expert Report (IER) has been prepared by Competent Persons (CPs) that include Kim Mohler, P. Eng. of GLJ Ltd. (GLJ) and Mark King, PhD, FGC, P.Geo. of Groundwater Insight Inc., at the request of Vulcan. Ms. Mohler takes responsibility for the preparation and signoff of Sections 1-3, 8-19, and 21 in this IER. She visited the project property on November 8-10, 2022 and conducted interviews with Vulcan staff on each of the sections of this report. Dr. King is responsible for

preparation and signoff on Sections 4-7, 15-19 and 21. He conducted a site visit on the project property on November 8-10, 2022. The CPs are jointly responsible for Sections 18-20.

The CPs are of the opinion that this Project and the supporting DFS for Phase One demonstrate that economic lithium extraction from the Vulcan licences in the URVBF is feasible. This opinion is based on consideration of modifying factors which, as per JORC (2012) include, but are not restricted to, mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social, and governmental factors.

With respect to units of measure and currency, unless otherwise stated, this Report uses:

- Abbreviated shorthand consistent with the International System of Units (International Bureau of Weights and Measures, 2006).
- 'Bulk' weight is presented in metric tonnes ("tonnes"; 1,000 kg or 2,204.6 lbs.).
- The data refer to the ETRS89, UTM Zone 32N (EPSG 25832) position reference system, unless otherwise specified.
- Currency in Euros € unless otherwise specified (e.g., U.S. dollars, USD\$).

3. Property Location, Ownership, and History

The area of interest for the DFS Phase One is the core, brine-producing Lionheart area which comprises the Insheim, Landau- Süd, and Rift licences, and the step-out Taro area to the north, which comprises Taro and Kerner Ost licences. Lithium chloride (LiCl) production from this area will be transported to a Central Lithium Plant (CLP), at a site at the Hoechst Chemical Park near Frankfurt, to which Vulcan has secured exclusive access. Within the Phase One district, Vulcan holds a 100% interest in the operating Insheim license, including the geothermal wells and plant, and 100% interest in the Taro and Kerner exploration licenses. It has a brine offtake agreement in place to access brine from the geothermal wells and plant in the Landau- Süd permit, as well as a Joint Venture Agreement (JV) to develop another project area in Landau- Süd. It also has an agreement to solely develop the northern half of the Rift license neighbouring Insheim, subject to a production royalty.

The region for the Project is in the URV (Figure 3.1) which extends into three countries: Germany, France, and Switzerland. The area is located centrally in Europe and is highly developed with many rural and urban centres throughout which are interconnected via roadways, freeways, and railways. The Rhine River dominates the region as a major shipping route, and access to both sides of the river is possible with many bridges. The soil and climate of the Rhine River system make it a privileged area for agriculture, including vineyards, corn, and other crops. The climate is typically warm, temperate, and wet with annual temperature around 11.2 °C with about 871 mm of annual precipitation. There are well developed industrial areas for automotive manufacturing, chemical industry, and related service sectors.



Figure 3.1: Location of Upper Rhine region in Germany. Source: (mygermancity.com, n.d.)

The URV is a graben system containing a consistent geothermal lithium reservoir which, within Vulcan's Phase One development area and based on Vulcan's data, has an average lithium grade of 181 mg/l Li (see Section 5). The deep subsurface reservoirs targeted for lithium brine production are well explored in the region and have sufficiently high temperatures to support geothermal production in co-production with lithium recovery. There is a long history of deep geothermal well development in the URVBF since the 1980s, with many wells being developed for either hydrocarbon potential or geothermal potential (Figure 3.2). Many of the wells historically drilled in the URVBF have been shallower for the purpose of oil and gas production. Notable geothermal work includes R&D projects at Bruchsal, Germany, and Soultz, France which have tested various geothermal power generation technologies with deep geothermal source wells. Within the planned development area, Vulcan already has deep geothermal wells operating at the commercial geothermal energy plant at Insheim, and the same at Landau Süd where it has agreements with the licence holder.

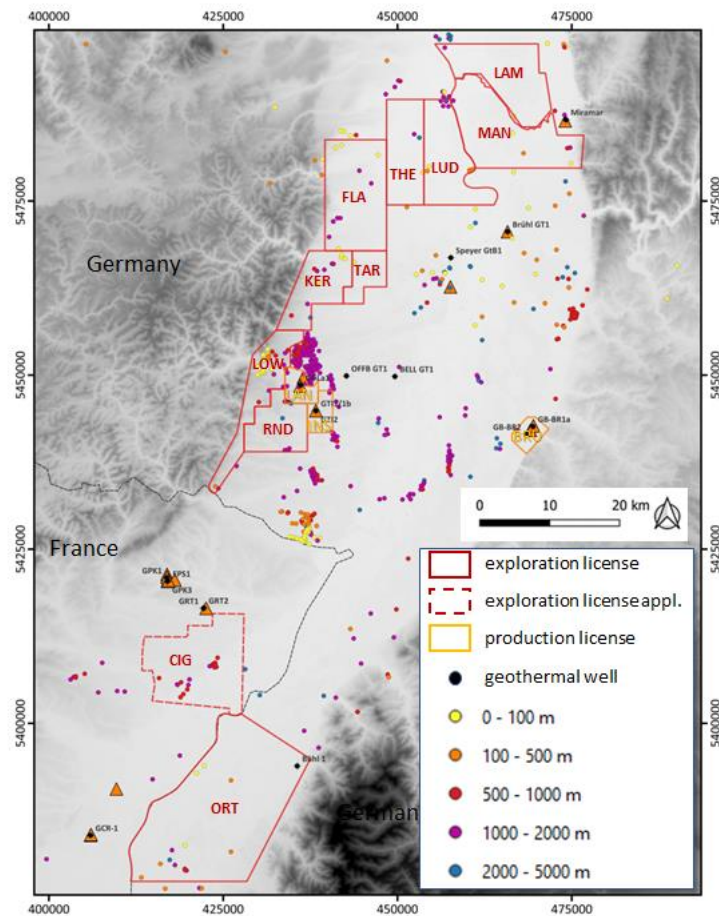


Figure 3.2: Summary of all deep wells drilled in the Upper Rhine Graben, showing Vulcan's licences and location of wells relative to licences used in resource study. Source: GeORG Mapviewer at: (<http://maps.geopotenziale.eu/>, n.d.) and GeotIS at (www.geotis.de, n.d.)

The DFS and Mineral Resource and Reserve update include discussion of all Vulcan licence areas including those that are planned for Phase One, with additional licence areas potentially planned for future development. An overview of licence locations and details is provided in Figure 3.3 and Table 3.1. In addition to the Phase One group of licences, Vulcan also holds 10 additional licences in the URV, for a total secured licence area of 1,583 km². The Company has also applied for an additional 155 km² of licences in the same region. Vulcan has acquired the geothermal brine and lithium rights (licences) through direct application to the respective mining authorities of the German states of Rheinland-Pfalz, Baden-Württemberg, and Hessen. All exploration licences were granted pursuant to the German Federal Mining Act (Bundesberggesetz 'BBergG') for the purpose of commercial exploration of mining-free mineral resources: geothermal, brine and lithium. Vulcan has acquired the lithium exploration and geothermal production licence at Insheim at 100% ownership.

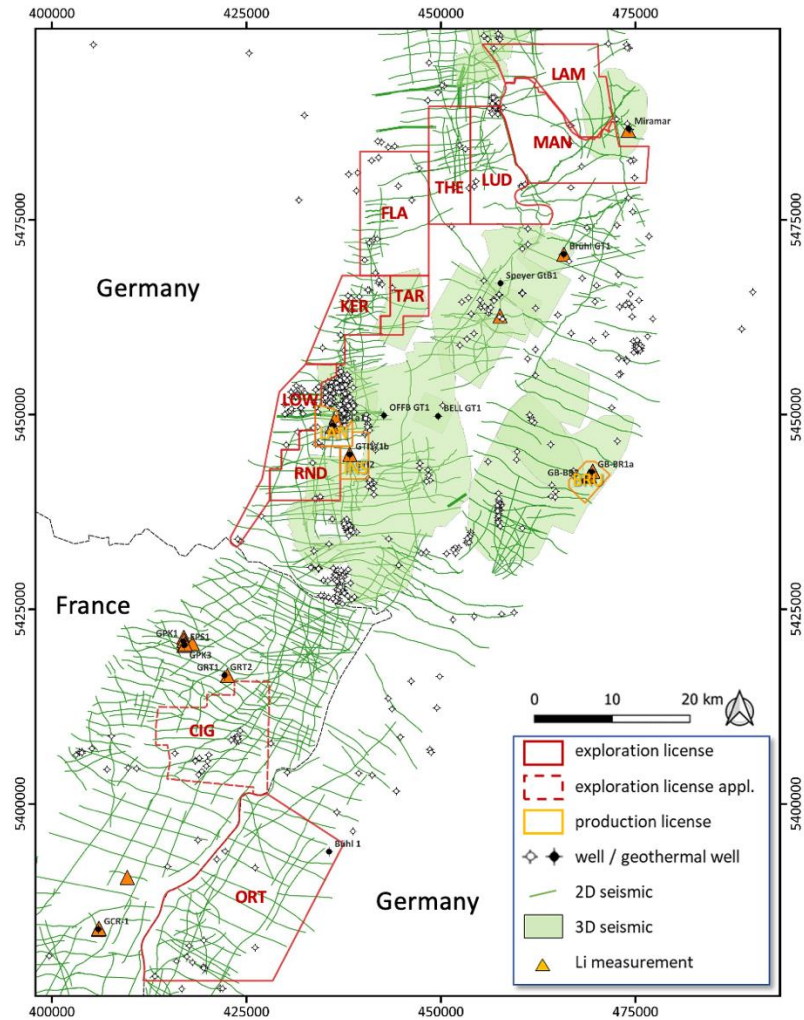


Figure 3.3: Overview Map of Vulcan licensed areas in the Upper Rhine Valley showing well and seismic survey locations used in this study. Existing seismic data sets and well penetrations within the Upper Rhine Valley Brine Field, Germany. LAM: Lampertheim, MAN: Mannheim, LUD: Ludwig, THE: Therese, FLA: Flaggenturm, TAR: Taro-Lisbeth, KER: Kerner, LOW: Löwenherz, INS: Insheim, LAN: Landau- Süd, RND: Rift North, CIG: Cigognes, ORT: Ortenau. Other Vulcan licenses to the north not shown.

At Insheim, Vulcan operates the existing geothermal plant named Natür³Lich Insheim (Figure 3.4), which has the capacity to produce up to 4.8 MW renewable power. There are two operating wells located at this plant, one for production of the approximately 165°C hot brine and one for reinjection of cooled brine. The wells were drilled from 2009 to 2010. The plant has been in operation since 2012. There is a second geothermal plant in the region at Landau- Süd (LAN) for which Vulcan has secured an offtake agreement for brine production with Geox GmbH (the operating company). The plant and wells have been in operation since 2007. Vulcan has also entered into a 51:49 (in Vulcan's favour) Joint Venture agreement with the owners of the Landau- Süd license to develop a new geothermal project in the same Landau- Süd license as the current Landau plant, which will also supply Vulcan's Phase One operations with brine for lithium extraction. Vulcan has an agreement to develop new geothermal projects on the Rift North (RND) exploration licence in return for a production royalty.



Figure 3.4: Aerial photograph of the Insheim Geothermal Plant. Source Pfalzwerke Gruppe (2019).

Table 3.1: Overview of Vulcan's licensed areas

Facts					Deadlines	
Abbreviation	Name	State	Resources applied for	Area (ha)	Status	Grant valid until
RIE	Ried	Hessen	Geothermal, brine & lithium	28992		submission digital: 08.04.2022; Submission print: 11.05.2022
WAL	Waldnerturm (before Windeck, Weinheim)	BW	Geothermal, brine & lithium	2044		first submission draft: 24.05.2022; Second submission: 11.07.2022
LAMII (?)	Lampertheim II	Hessen	Geothermal, brine & lithium	198		first submission: 19.07.2022; Submission print: 09.08.2022
ORT	Ortenau II	BW	Geothermal, brine & lithium	37410		submission: 22.06.2021 Grant: 29.06.2021
MAN	Mannheim	BW	Geothermal, brine & lithium	14449		grant: 06/2019; Extension granted until 30.06.2024
TAR	Taro	RLP	Geothermal	3268		10/08/2020 Grant
LIS	Lisbeth	RLP	Lithium	3268		15/09/2021
LUD	Ludwig	RLP	Geothermal & lithium	9634		13/12/2021
THE	Therese	RLP	Geothermal & lithium	8112		13/12/2021
LAM	Lampertheim	Hessen	Geothermal, brine & lithium	10803		grant: 01.07.2021
KER	Kerner	RLP	Geothermal & lithium	7226		13/12/2021
LOE	Löwenherz	RLP	Geothermal & lithium	7543		13/12/2021
FLA	Flaggenturm	RLP	Geothermal	14114		02/12/2020
FUC	Fuchsmantel	RLP	Lithium	14114		14/07/2021
INS	Insheim	RLP	Geothermal	1900		12-11-2012 granted; plant bought on 01.01.2022
CES	Cesano	Italy	Geothermal brine & lithium	1146		12.01.2022

granted

Status:	exploration license granted	Extension exploration license granted	mining license granted
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Vulcan plans to develop the licence areas in a phased approach. Phase One will be developed first, followed by Phase Two which will be a further development in step out areas. It should be noted that Vulcan's DFS deals solely with Phase One. PFS data from Phase Two is now over two years old and should be treated with caution. Subsequent Phases are planned to follow to fully leverage the large licence area that Vulcan has secured. The Project plans for multiple central surface facilities for geothermal operations to be fed from multi-well pads. Lithium extraction will be conducted in two stages, starting at geothermal facility-based Lithium Extraction Plants (LEPs) and proceeding to a single facility near Frankfurt as the Central Lithium Plant (CLP). LHM product will be produced and marketed from the CLP.

The Phase One area is well located, close to existing road infrastructure and within relatively flat valley terrain. The Phase One area is mixed land use with rural, urban, agricultural, industrial, and park land. Vulcan has been diligent in ongoing planning development with consideration of existing land uses in consultation with local communities and landowners.

4. Geology and Mineralisation

The roughly 020° orientated Cenozoic Upper Rhine Graben (URG) in west-central Europe forms part of the European Cenozoic Rift System (ECRIS) that extends from the North Sea, the Netherlands, western Germany, northern Switzerland, eastern France and down to the Mediterranean Sea. The URG extends from Frankfurt (Main) in the north to Basel in the south as a seismically active, morphologically distinct graben structure with a roughly 300 km long, 30 to 40 km wide lowland plain that drops from 200 m a.s.l. in the south to below 90 m a.s.l. in the north. It is surrounded by morphologically well-defined hills and mountains, including: the Black Forest, the Vosges Mountains, Odins Forest, and the Palatinate Forest. The Rhine River flows through the valley formed by the URG and acts as a natural political and administrative boundary between Germany, France, and Switzerland.

The URG can be subdivided into southern (Basel – Strasbourg), central (Strasbourg – Speyer), and northern (Speyer – Frankfurt) segments, each approximately 100 km long. Vulcan's licences are located within the northern and western part of the central segment. Due to its long history of hydrocarbon exploration and exploitation, the subsurface of the URG has been intensively investigated. Active geothermal power plants (Soultz, Rittershoffen, Landau, Insheim, Bruchsal) are exclusively located in the central segment. A geothermal district heating project was also established in Riehen (Switzerland) at the southernmost termination of the URG.

The focus of Vulcan's geothermal Zero Carbon Lithium™ Project in the URV is on aquifers associated with the Permo-carboniferous Rotliegend Group sandstone, the Lower Triassic Buntsandstein Group sandstone, and the Middle Triassic Muschelkalk Group, which is composed of carbonate sediments, collectively the 'Permo-Triassic strata', (Figure 4.1). The Permo-Triassic strata underly all Vulcan Property licences included in this report. The Rotliegend and Buntsandstein Groups are characterized as laterally heterogeneous sandstone units and form part of a structurally complex rift basin. The Middle Triassic Muschelkalk succession, however, is only present from the Taro licence area towards the south in the URG.

The Rotliegend Group within the URG formed during the late stage of the Variscan Orogeny with local extension already happening. The Variscan Orogeny was accompanied by volcanism that led to the deposition of intrusive deposits into the basement, which is underlying the URG. Those intrusive deposits are believed to form an essential part of the lithium system. The actual rifting of the URG occurred during Cenozoic times. Hence, the fault system is comparably young.

The Lower Rotliegend comprised of alluvial-fan/fan-delta to fluvial-dominated Carboniferous and Permian sedimentary rocks. The basin infill subsequently transitioned from fluvial dominated to alluvial and eolian depositional environments during Upper Buntsandstein times.

The Lower Triassic Buntsandstein Group is subdivided into the Lower, Middle and Upper Buntsandstein subgroups as defined by distinct progradational and retrogradational fluvial sedimentary cycles. The Buntsandstein Group aquifer domain is defined as a confined sandstone aquifer that occurs between the fine grained Upper Buntsandstein Group and the fine-grained base of the Lower Buntsandstein.

The Middle Triassic Muschelkalk represents the marine sedimentation that succeeds the fluvial deposition of the Buntsandstein. It consists of argillaceous dolomites and sandstones as it represents a marine transgression. Towards the top of the Muschelkalk, evaporitic sediments dominate which provides a top seal for the reservoirs of interest.

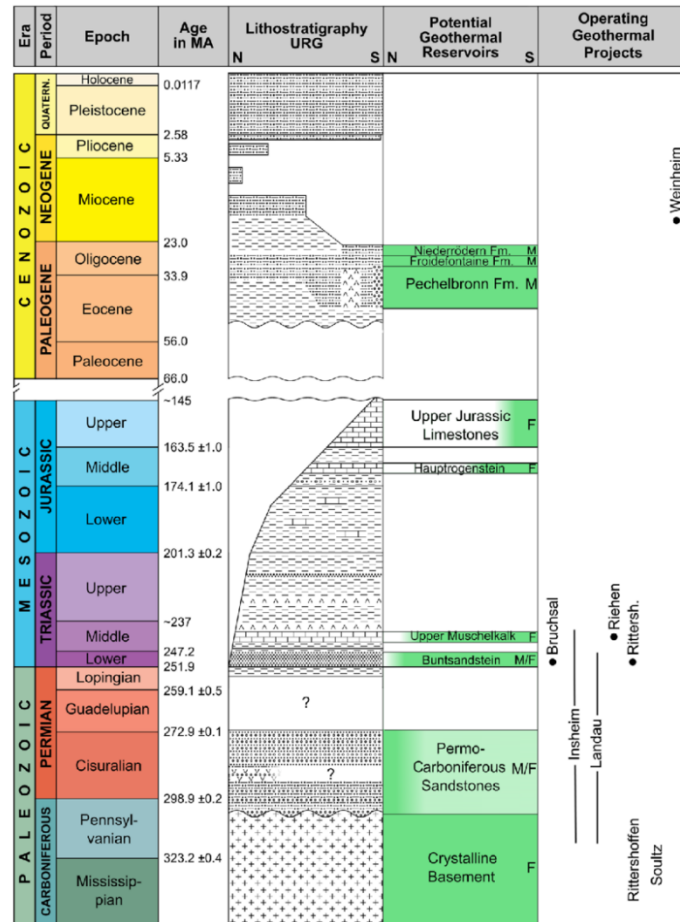


Figure 4.1: Stratigraphic chart for the Permo-Triassic strata in the Upper Rhine Valley Brine Field (Frey et al., 2022).

The Permo-Triassic strata that includes the Rotliegend, Buntsandstein, and Muschelkalk Groups are the focus of the resource models for Taro, part of Kerner, and the Lionheart development area, and Ortenau. Only the Buntsandstein group strata have been considered for the Northern licence areas that include Mannheim, Ludwig, Therese, Flaggenturm/Fuchsmantel, and the western part of Kerner.

Brine aquifers within the Rotliegend Group and Buntsandstein Group are considered to have some degree of hydrogeological communication. This is particularly evident in zones with a high degree of faulting and fracturing in which fluid brine can flow throughout the Permo-Triassic strata and can also penetrate the underlying faulted, fractured and altered granitic basement and the overlying Muschelkalk zone. These fault/fracture zones generally contain hot brine and exhibit high fluid flow rates. Consequently, they are a prime target for geothermal development.

Historical and Vulcan-conducted geochemical analysis of the aquifer brine from the Permo-Triassic strata shows the brine is enriched in lithium. Because recent German Government policy emphasizes decarbonisation and promotes the development of renewable sources, Vulcan is focused on extracting lithium from the deep-seated aquifers as a co-product of geothermal power production within the URG. That is, the geothermal wells represent cost effective access points to acquire deep, geothermally

heated, lithium-enriched brine associated with the Permo-Triassic aquifers overlying the crystalline basement.

Lithium is a silver-grey alkali metal that commonly occurs with other alkali metals (sodium, potassium, rubidium, caesium). The atomic number of lithium is three and the atomic weight is 6.94, making it the lightest metal and the least dense of all elements that are not gases at 20° C (it is solid at 20° C, with a density of 534 kg/m³). Lithium has excellent electrical conductivity (i.e., a low electrical resistivity of 9.5 mΩ-cm), making it ideal for battery manufacturing where lithium ions move from the negative electrode to the positive electrode during discharge and back when charging. Lithium imparts high mechanical strength and thermal shock resistance in ceramics and glass.

The average crustal abundance of lithium is approximately 17-20 parts per million (ppm, Teng et al. 2004) with higher abundances in igneous (28-30 ppm) and sedimentary rocks (53-60 ppm). Resource estimates and production quantities of lithium are often expressed as Lithium Carbonate Equivalent (LCE). The deep lithium-enriched brines of the URVBF originate from geothermal water-rock interaction in the deep subsurface. The lithium enrichment process consists of the following components:

- Recharge of meteoric water with no lithium.
- Downward flow of recharge water, to depth in the URG.
- Water interaction with micaceous, lithium-bearing basement rocks below the pre-rift sediments in the URG.
- Upward flow of enriched brine (through fractures) into Rotliegend and Buntsandstein reservoirs.
- Natural seismicity maintaining the fracture permeability (i.e., self-sealed fractures are frequently reopened).
- Prevention of significant upward loss of enriched fluid by a low permeability top seal.
- Ongoing replacement (via recharge on the URG flanks) of any reservoir fluid that may be lost due to leakage through the upper seal (i.e., reservoir remains charged with lithium-enriched brines from basement).
- Ongoing convection of radiogenic heat from the crust maintains high temperature in the Rotliegend/Buntsandstein reservoir.

Enrichment of the deep URG waters with lithium is consistent with deep basin waters elsewhere in the world. For example, this process is known to occur to varying extents worldwide, at locations that include: the Cambrian Siberian Platform (Russia), the Devonian Basin (Michigan), the Mississippian–Pennsylvanian reservoirs (Illinois Basin), Paradox Basin (Pennsylvania), Triassic strata of the Paris Basin (France), and Jurassic Smackover strata from the Gulf Coast (Arkansas and Texas).

In the case of the Buntsandstein Group and Permo-Triassic aquifers in the URG, the deep-seated, lithium-enriched brine can be cost effectively recovered from the confined aquifer via in-production geothermal wells. Direct lithium sorption technology would be used to recover the lithium. The brine would be returned to the aquifer via reinjection wells, with no interruption in the geothermal plant operational cycle.

5. Exploration Summary

The URG is one of the most intensively investigated continental rifts worldwide. Consequently, there exists a large amount of relevant data including borehole logs, extensive 2D seismic surveys, and a steadily increasing body of 3D seismic surveys directly related to lithium and geothermal development. Additionally, there are many scientific publications and research and development projects throughout the URG which provide a comprehensive understanding of this basin.

The GeORG Project is one such contribution (GeORG-Projektteam 2013). GeORG is a collaborative, multi-group study across country borders that interpreted 2D seismic data in an extensive grid within the URG and across all of Vulcan's licences within this basin. These data were supplemented by Vulcan with additional 2D seismic lines and a 3D seismic survey at Taro, to better define fault features which are key exploration targets for lithium and geothermal development. Recently, 3D seismic data have also been acquired in the Lionheart, Mannheim and Lampertheim areas. Structural, geocellular, and dynamic models were created from these data, tied to available well logs and production records from the Insheim and Landau geothermal wells, to determine the resource estimates for the Vulcan licences within the URG. The seismic data are important for resolving the presence and lateral continuity of the key zones of interest which are the Rotliegend, Buntsandstein, and Muschelkalk successions, as well as the granitic basement.

Geochemical data have been consistently acquired and verified throughout the URG to determine the presence and concentration of the lithium within the brine. Samples have been verified independently and are consistent with the averages used in the resource estimates. Vulcan's first comprehensive evaluation of brine chemistry was conducted in 2019, through a program that consisted of: 1) a geological compilation and subsurface review of the Permo-Triassic stratigraphy; 2) an assessment of the hydrogeological conditions underlying the Vulcan Property; and 3) collecting and analysing Permo-Triassic brine samples from the geothermal wells and plant operating at the Insheim resource area or property-neighbouring geothermal wells to verify the historical Lithium brine geochemical results.

For the Phase One licences (plus Ortenau) the average lithium content from brine collected by Vulcan from six geothermal wells (including its 100%-owned Insheim geothermal wells and plant) located throughout the URG and within and proximal to its licences was used as the representative grade for Resource Estimation. This grade was 181 mg/L Lithium (n=13 total metal analyses by ICP-OES). In addition, a detailed assessment of Permo-Triassic aquifer brine at the Insheim resource area production well yielded 181 mg/L Lithium (n=26 analyses). This grade was used as the regional Lithium brine value for previous resource estimates, and for the current update. These brine geochemical results demonstrate that the Permo-Triassic brine in the URG has a relatively homogeneous lithium chemical composition in the vicinity of the Phase One licences, both temporally and spatially.

In addition, independent brine sampling was conducted by a former project Competent Person in September 2019 (Insheim) and March 2022 (Landau) and by the current CP in November 2022 (Insheim and Landau). The former CP sent the resulting samples directly to two independent, certified laboratories and the current CP to another certified laboratory. In all cases, analytical results were consistent with previous results from Landau and Insheim. Further indication of the consistent lithium content of brine recovered at Landau and Insheim is indicated by ongoing sampling and analysis

conducted by Vulcan to support pilot lithium extraction operations at these facilities, with hundreds of analyses returning similar results within analytical error margin of the average estimated grade since start of piloting operations in April 2021.

For the other licences with the URVBF Resource Estimation but outside Phase One (except Ortenau), the lithium concentration from a Brühl well sample was taken into account after correction was made for dilution. Samples were collected from the Brühl well during production testing in 2013. The well was not subsequently available for sampling, due to project circumstances and sealing of the well. Aliquots of the 2013 sample were provided to Vulcan and were archived, and analysed in 2019, as part of the wider sampling and analysis programme at that time. Results were recognized as being influenced by dilution, consistent with the use of freshwater during production testing and with loss of drilling fluids. Vulcan conducted an assessment and interpretation of the results based on reservoir temperature estimates using geothermometers developed for geothermal brines. These calculations resulted in an estimate of original lithium content (before dilution) of 153 mg/L. For comparison, the measured value in sample was 104 mg/L (total lithium). The calculated lithium value of 153 mg/L was used as the grade in the current Resource Estimates for only three of the northern licences (Mannheim, Ludwig, and Therese). The CP has reviewed these interpretations and considers the resource grade to be conservative to realistic.

The targets are permeable zones containing high temperature brine with lithium concentrations that can be extracted with minimal losses. The exploration programmes have evaluated public datasets, and proprietary datasets owned by Vulcan, utilising existing well data (sometimes on-property, sometimes off property) and seismic data where possible due to the prohibitive expense of acquiring new data from deep brine drilling. Models are planned to be regularly updated as Vulcan's development drilling and data acquisition continues across all of its development areas.

6. Estimation Methodology, Cut-off Grades and Classification Criteria

Resources were estimated for Vulcan's licences within the URVBF, in the URG. Geologically, the resource area includes the fault damage zones and host rock matrix of the Permo-Triassic sediments which includes the Rotliegend, Buntsandstein, and Muschelkalk groups. The fault damage zones were modelled to include 200 m on either side of the fault, based on a statistical average that was calculated based on all fault offsets derived from seismic data there and a 'fault offset' to 'fault damage zone width' correlation. The host rock matrix makes up much of the bulk volume within the licences.

6Petrel, a SLB geomodelling software package, was used to model the three geological units representing the permeable reservoirs for lithium-enriched brine: Rotliegend, Buntsandstein and Muschelkalk. This modelling approach is based on a comprehensive information package that includes 3D seismic data, 2D seismic data, geological well data (including core samples, outcrop data, depositional environment interpretations), and production data from currently producing wells at the Insheim and Landau licences within the core of the Phase One area. Dynamic modelling for the Lionheart area in Phase One was also used to define the drainage areas and resource footprints for those licences. The workflow implemented for the calculation of the Vulcan lithium brine resource estimates for each licence is as follows:

- Definition of the geology, geometry and volume of the Permo-Triassic strata within the fault damage zones and host rock matrix using all the available subsurface and surface data.
- Hydrogeological characterisation and an historical compilation and assessment of effective porosity within the URVBF to estimate an average value for each geological unit.
- Determination of a representative lithium-in-brine concentration for each licence, based on Vulcan's brine sampling programs across the URVBF as well as independent testing of samples at Insheim and Landau.
- Numerical calculation (estimation) of the *lithium-initially-in-place (LIIP)* using the relation:

$$LIIP = \text{Gross Rock Volume (GRV)} \times \text{Average Net-to-Gross Ratio (Avg NTG)} \times \text{Average Effective Porosity (Avg Phie)} \times \text{Average Concentration of Lithium in the Brine (Avg LC)}$$

Where;

GRV (km³): gross rock volume - extracted from the geomodels after the verification and validation of the continuity of the stratigraphic horizons and fault interpretations.

Avg NTG (decimal): net thickness to gross thickness ratio - gross thickness is determined from average thicknesses of the zones of interest identified in well log data and seismic data. The average net thickness is determined using an effective porosity cut-off of 5% within the gross interval. This is based on producing and previously producing geothermal and oil and gas wells within the URVBF (Appenhofen 1, Landau 207 and 211, Römerberg oil wells A-E – see reference list of studies below), within and proximal to Vulcan's Phase One area, that showed significant fluid flow from the target reservoirs. On the porosity versus permeability cross plot (Figure 6.1) of all the available core and sidewall core plug data in the URG for the Buntsandstein (Figure 6.2), 5 % effective porosity is equivalent to an average of 0.02 mD permeability. Because permeability cannot be measured directly using wireline logs, this correlation of porosity with permeability helps to establish the effective flow of fluids within a reservoir where core data are not available. This is based on The Canadian Oil and Gas Evaluation Handbook (2019) for the evaluation of subsurface reservoirs (also see Nelson, 1994 for theoretical explanation).

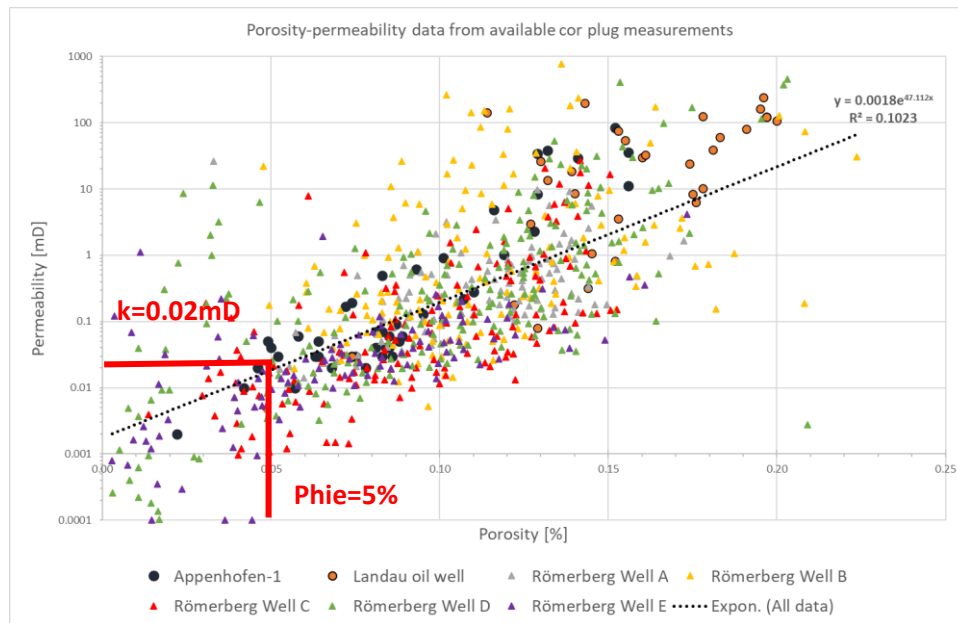


Figure 6.1: Porosity versus permeability cross plot of Buntsandstein core data for seven wells in the URVBF.

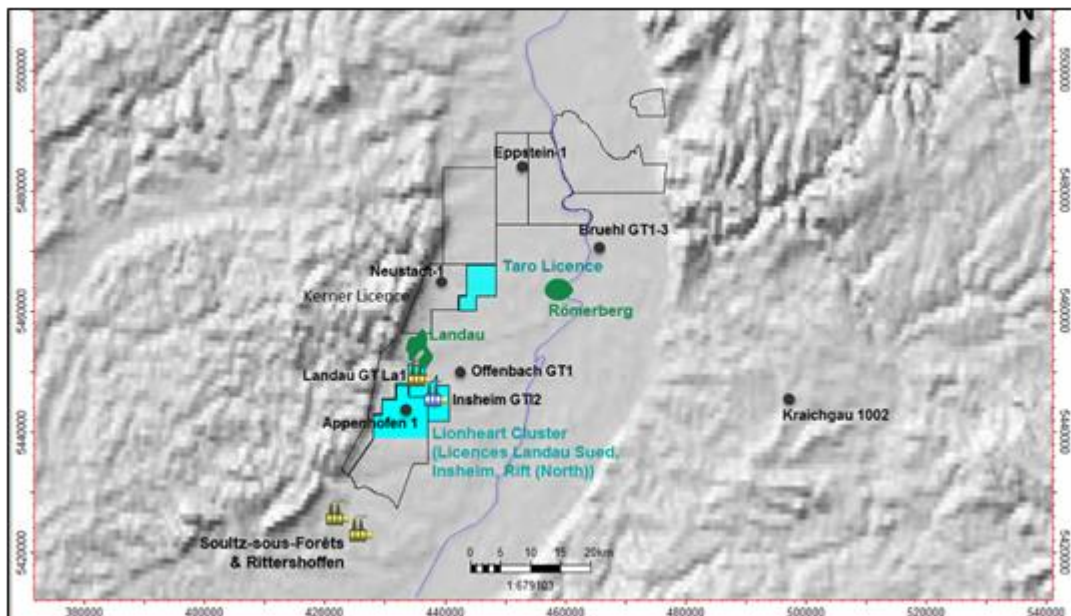


Figure 6.2: Map showing locations of wells with data incorporated into Phase One study, including on-property wells at Insheim-Landau geothermal plants, Appenhofen-1, wells within Landau field, and Römerberg field near Taro. Green shows oil fields containing denser drilling.

Studies defining the porosity and permeability relationships using core plug measurements of producing geothermal and oil and gas wells:

GeORG Project, 2013 – Upper Rhine Graben regional study

Bossennec, 2019 – Römerberg oil field

Bush et al., 2022 – Landau geothermal wells

Haffen et al., 2015 and Heap et al., 2017 also provide core plug measurements of the Buntsandstein Group in the Soultz ESP-1 well in the URG in France.

Avg Phie (decimal): effective porosity - that portion of the total void space of a porous material that can transmit fluid. Determined from the petrophysical evaluation of density, neutron, and/or sonic well logs covering the zones of interest, supplemented with core and sidewall core plug data where available.

Avg LC (mg/L): average lithium concentration determined from sampled wells in the URG.

- Assessment and confirmation of “reasonable prospects for eventual economic extraction” for the estimated Mineral Resources on each licence, as per the JORC (JORC 2012) definition of Resources.

Derivation of NTG and Phie inputs to the Mineral Resource calculations was supported by a compilation of publicly available porosity and permeability data for the Rotliegend, Buntsandstein, and Muschelkalk units (fault damage zones and host rock matrix) including:

- Over 300 effective porosity measurements from Buntsandstein core and outcrop analysis, and total porosity from wireline well log data, located throughout the URG (GeORG-Projektteam 2013; Soyk, 2015; Egert et al., 2018).
- Over 250 Buntsandstein Group permeability measurements and/or interpretations (GeORG-Projektteam 2013; Stober and Bucher, 2015), including inferences on fracture permeability (Vidal et al., 2015; Baujard et al., 2017).
- Over 1,500 Rotliegend outcrop and 62 Rotliegend core plug porosity measurements (Bär, 2012; Aretz et al. 2015).
- Over 550 Rotliegend Group permeability measurements from well core plugs (Bär, 2012; Aretz et al. 2015).

Lithium-brine analytical data used in the resource estimates were discussed in the previous section. As noted, an average grade of 181 mg/L lithium was used for the Phase One licences (plus Ortenau) and an average grade of 153 mg/L was used for the other licences (Mannheim, Ludwig, and Therese).

To validate the continuity of the stratigraphic horizons of interest and to validate the fault interpretations, an independent audit of the modelled surfaces and faults was conducted based on: 1) raw seismic profiles, 2) downhole drill logs and e-logs associated with geothermal and oil and gas wells drilled within the URG, 3) the regional GeORG 2D geological model cross-sections, and 4) the 3D geomodel at Taro.

A cut-off grade / resource quantity analysis was not strictly applicable to the resource, due to the use of average grade in the static resource estimate. However, it is noted that a grade for economic extraction of 100 mg/L has been established on a provisional basis for the lithium extraction process and that all resources are currently estimated to exceed that grade. The cut-off grade value continues to be evaluated as Vulcan advances the URVBF work. It is possible that this cut-off grade value will be adjusted in future technical reports. A cut-off of 100 mg/L lithium is considered reasonable for the current stage of assessment. It is noted that lower values have been used to define other confined aquifer brine deposits (e.g., Dworzanowski et al., 2019), which tend to have lower grades in comparison to many salar-based lithium brine deposits.

The resource classification criteria used for the URVBF are based on the quality of the data available and the CP confidence level in the integration of all the data by Vulcan's multi-disciplinary team. This team includes geophysicists, geologists, hydrogeologists, geothermal specialists, and chemical engineers with relevant experience in the Permo-Triassic brine geology, hydrogeology and lithium brine processing. The URVBF project has reasonable prospects for the eventual economic extraction of lithium, based on aquifer geometry, delineation of fault zones using re-interpreted seismic data and newly acquired 3D seismic data, brine volume, brine composition, hydrogeological characterisation, porosity, fluid flow, and advancement of Vulcan's Direct Lithium Extraction technology. The CPs, Dr. Mark King, P. Geol. and Kim Mohler, P.Eng. take responsibility for this statement.

The Resource classifications are shown on Table 7.1 for all of Vulcan's licences in the URVBF. Some important points to support the assigned classifications include: 1) a greater level of confidence in the subsurface geological modelling because of Vulcan's acquisition of 2D and 3D seismic data, as well as static and dynamic modelling of the Permo-Triassic strata calibrated to available well data, 2) ongoing production data from two producing geothermal wells at Insheim (in production since 2012) and Landau (in production since 2007), and 3) knowledge of Vulcan's commissioned and operated DLE adsorption pilot test work and results.

7. Upper Rhine Valley Brine Field (URVBF) Li-Brine Resource

Vulcan has completed multiple phases of test work, sampling and interpretation that are adequate to support the disclosure of Mineral Resource estimates (Table 7.1). In the opinion of the CPs, the Vulcan Upper Rhine Valley Brine Field licences for lithium and renewable energy projects have reasonable prospects for future economic extraction based on aquifer geometry, delineation of fault zones using re-interpreted seismic data, brine volume, brine composition, hydrogeological characterisation, porosity, fluid flow, and advancement of the Company's Direct Lithium Extraction technology. The CPs, Dr. Mark King, P.Geol. and Kim Mohler, P.Eng. take responsibility for this statement.

Per JORC, Mineral Resources are not Ore Reserves and do not have demonstrated economic viability. Inferred Mineral Resources have a lower level of confidence associated with their estimation than Indicated Mineral Resources, but it is reasonably expected that with further exploration the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources. Indicated Mineral Resources are sufficiently well defined to allow application of Modifying Factors to support well planning and economic evaluations of the deposit. Measured Mineral Resources are sufficiently well

defined to allow application of Modifying Factors to support detailed well planning and final evaluation of the economic evaluations of the deposit.

Table 7.1: Vulcan's combined Zero Carbon Lithium™ Project Lithium (Li) brine Measured, Indicated and Inferred mineral resource estimates. Phase One licences indicated in orange highlight. Note: see Competent Person Statement at the end of this document.

Licence	Reservoir	Classification	GRV km ³	Avg. NTG %	Avg. Phie %	Avg. Li mg/L	Elemental Li t	LCE kt
Mannheim	BST	Indicated	4	90	10	153	54,111	288
	BST	Inferred	32	65	9	153	290,312	1,545
Ludwig	BST	Indicated	7	90	10	153	93,220	496
	BST	Inferred	22	65	9	153	199,226	1,060
Therese	BST	Indicated	2	90	10	153	29,907	159
	BST	Inferred	22	65	9	153	200,708	1,068
Flaggenturm	BST	Indicated	7	90	10	181	115,215	613
	BST	Inferred	37	65	9	181	391,201	2,082
Kerner	BST	Indicated	5	90	10	181	76,242	406
	BST	Inferred	13	65	9	181	132,558	705
Kerner Ost	*MUS, BST, ROT	Indicated	4.3	73	8	181	66,708	355
Taro	*MUS, BST, ROT	Indicated	14.5	73	8	181	237,362	1,263
Landau Süd	*MUS, BST, ROT	Measured	7.4	73	8	181	102,383	545
	BST	Indicated	1.2	90	11	181	22,220	118
Insheim	*MUS, BST, ROT	Measured	9	73	8	181	127,779	680
Rift	*MUS, BST, ROT	Measured	10.1	73	8	181	134,132	714

	*MUS, BST, ROT	Indicated	11.9	73	8	181	178,000	946
Ortenau	*MUS, BST, ROT	Indicated	57	73	8	181	659,013	3,507
	BST	Inferred	105	73	8	181	1,883,212	10,024
						mg/L		kt
Total LCE		Measured				181		1,939
		Indicated				178		8,151
		Inferred				172		16,484

Note 1: Mineral Resources are not Ore Reserves and do not have demonstrated economic viability.

Note 2: The weights are reported in metric tonnes (1,000 kg or 2,204.6 lbs). Numbers may not add up due to rounding of the resource value percentages.

Note 3: Reservoir abbreviations: MUS – Muschelkalk Formation, BST – Buntsandstein Group; ROT – Rotliegend Group.

Note 4: To describe the resource in terms of industry standard, a conversion factor of 5.323 is used to convert elemental Li to Li₂CO₃, or Lithium Carbonate Equivalent (LCE).

Note 5: NTG and Phie averages have been weighted to the thickness of the reservoir. These averages are consolidations of multiple local zones and therefore multiplied together will not equate to the global elemental lithium values presented. The elemental lithium values presented are determined separately using detailed data for each zone and then summed together to show a total value for the purposes of this summary table.

Note 6: GRV refers to gross rock volume, also known as the aquifer volume. GRV values presented in this table are rounded to the first significant figure for presentation purposes. The elemental lithium values presented are calculated using GRV values that have not been rounded.

Note 7: Mineral Resources are considered to have reasonable prospects for eventual economic extraction under current and forecast lithium market pricing used in the DFS with application of Vulcan's DLS processing.

Note 8: The values shown are an approximation and with globalised rounding of values in the presented summary table as per JORC guidelines, cannot be multiplied through to achieve the Mineral Resource estimated volumes shown above.

8. Extraction and Metallurgical Methods and Parameters

Vulcan has conducted extensive mineral processing and metallurgical testing to support the Zero Carbon Lithium™ Project, including operation of scaled pilot plants. The lithium extraction and processing technologies planned for use in the project are either commercially proven in the lithium industry, or commercially used in other similar analogue industries. They have been used in similar industrial uses in the salt industry and for lithium production from brine mining with salars.

A simple description of the process starts with the brine enriched geothermal fluid produced to the Geothermal Plant where heat is transferred and utilized for geothermal power generation at the Organic Rankine Cycle (ORC) plant. The power is produced by the plant itself, providing a green renewable power source. The slightly cooled brine is sent to the LEP where it is sent to the Direct

Lithium Sorption (DLS) system. The lithium chloride is recovered on a selective alumina-based sorbent and purified. The concentrated lithium chloride is then transferred to the Central Lithium Plant (CLP) for conversion to lithium hydroxide monohydrate (LHM).

This process has been extensively piloted in Vulcan's PP1 Pilot Plant which started operation on geothermal brine in April 2021, has operated at two geothermal plants in Vulcan's Phase One area, Insheim and Landau, thus validating the assumptions used in the DFS study, which are applicable to all the Vulcan license areas and the mineral resource estimates, and is still successfully operating. A second pilot plant, PP1-A, has also demonstrated the successful operation of the same extraction method in a High Pressure (HP) mode, which removes the requirement for a pre-treatment step.

Following the DLS, the next step is to convert the Lithium Chloride to Lithium Hydroxide Monohydrate (LHM) at battery grade for sale to market. This process utilizes electrolysis and crystallization for the conversion. These are proven technologies for other chemical products and have been tested for Vulcan using its own pilot plant lithium chloride product. In 2022, samples of LiCl concentrate were tested and converted by Electrosynthesis Co. Inc. through further concentration, purification and then conversion into lithium hydroxide monohydrate via electrolysis and crystallization.

Further testing for the extraction and conversion processes is ongoing at the existing pilots and with the planned installation of a Demonstration plant at the Landau facility to be operational in mid-2023 to train an operations team in a pre-commercial environment. A Demo Plant for the LiCl to LHM process is targeted to be operational in 2023 for the same purpose, which is currently under construction.

9. Field Development Plan

The field development plan is the overall well plan which defines the production and injection forecast for each of the Phase One areas at Lionheart and Taro. The development of each is distinct and based on the dynamic flow modelling that was prepared by Vulcan. The development plan for Lionheart includes addition of new wells, primarily at the Insheim license, to expand the existing brine production. The development plan takes into consideration the drilling plan for the wells and the timeline for construction of surface facilities and infrastructure for the project. All activities associated with the field development plan and overall project execution take into consideration safety and environmental protection and will follow all regulatory requirements.

The aim of the development plan is to produce 600l/s of geothermal brine commencing for Phase One from Lionheart and another 300l/s from Taro, for a total of 900l/s from Phase One. It is expected to take 18 months to ramp-up to full capacity after start-up. The producers are planned to be connected to open faults which are high conductivity zones, so as to minimize the drawdown, whereas the injectors are planned for drilling away from the faults to optimize the sweep of lithium rich water toward the faults and then the producers. Since the injectors are drilled in tighter areas than producers, they are mostly multilateral so that the connection to reservoir is maximized.

The drilling plans for Phase One are similar for all licences, where Vulcan has acquired its own electric drilling rigs. The first new development wells are planned to start drilling in mid-2023 for Phase One, with start of lithium production targeted to commence by end 2025.¹

The typical well plan trajectory will start from vertical at surface down to a depth of 1000m and then deviate the well to achieve the bottomhole target location in the Buntsandstein. Vulcan plans out each well individually but uses a generic model as a base case. The wells are planned to be drilled with water-based mud systems and include extensive formation evaluation methods such as mud logging, wireline logging, and geochemical analysis of cuttings. The well design is planned to be large sized boreholes to accommodate the large fluid rates expected, with 20" surface casing down to 7" liner across the production or injection intervals.

The dynamic reservoir modelling predicts dilution of lithium concentration over time at the reservoir level near the producer wells, due to sweep effects of the lithium depleted brine reinjection. The cut-off assumed for economic production is 100 mg/L Lithium, where the starting concentration was 181 mg/L Lithium.

The expected flow rate from each well is determined by geologic characterisation and the dynamic flow modelling, with maximum drawdown for producers and maximum injection pressures taken into consideration. A 1:1 ratio of produced to injected fluid is assumed, as there is no water storage planned for the sites. This replacement of brine back to the reservoir allows for pressure maintenance and sweep effects.

There are a total of 8 production wells planned for Lionheart, which includes 2 existing wells at Insheim and Landau. A total of 10 injectors are planned including 2 existing, and an addition of 12 side-tracks. The location and number of wells may vary as this plan is subject to change as the drilling progresses and more reservoir and fluid information becomes available.

For Taro a similar approach was taken. There are a total of 5 production wells and 4 injectors with 6 sidetracks planned for Taro. The location and number of wells may vary as this plan is subject to change as the drilling progresses and more reservoir and fluid information becomes available.

10. Mineral Reserves Estimation

The Mineral Ore Reserves are reported on a project basis and comprise as such quantities that are accountable to several licences. The first zone for development for Phase One is Lionheart, which comprises mineral ore reserves from the Insheim, Landau Süd, and Rift licences, centred around the brine-producing core of the field. The second zone is Taro, which comprises ore reserves from the Taro and Kerner Ost licences.

¹ Subject to receipt of all permits. Preliminary EIAs approved for two drill sites to date, requiring no full EIA, otherwise permits are progressing in line with expectations. The development drilling campaign is estimated to take 2.5 years. using the two Vulcan owned rigs for Lionheart (total of 14 new wells, 4 existing) and two externally sourced rigs for Taro (total of 9 wells).

The reference point for ore reserve booking is the wellhead or production manifold. As such it does not include the extraction recovery factor of the LEP which is 94.5% for a concentration of 181 mg/L production fluid and declines to 90.0% when reaching a concentration of 100 mg/L production fluid. A weighted average yields 93% and as such, the CLP outlet lithium mass flow is about 93% of the lithium inflow into the LEP inlet. The production forecasts are based on operational time of 315 days per year representing an uptime factor of 86.3%.

The reference point is chosen to enable stakeholders to compare ore reserves with the respective mineral resources and to calculate the subsurface recovery factor. This definition is consistent with the requirements of ore reserves under JORC.

For Lionheart, the production forecast peaks at 17 kt LHM in 2028 and reaches a cumulative production of 224 kt LHM (196 kt LCE) after 15 years and of 398 kt LHM (350 kt LCE) after 30 years. The technical lithium recovery factor after 15 years of production is 10%, and 18% after 30 years, which is estimated from the Measured Resource volume of 2,208 kt LHM (1,939 kt LCE) as reported in Section 7 of this report. For the estimation of mineral ore reserves, the cumulative production after 15 years of production represents Proved Ore Reserves. For the estimation of Probable Ore Reserves, the cumulative production from Year 16 to Year 30 is used. Figure 10.1 shows the lithium production forecast for Lionheart.

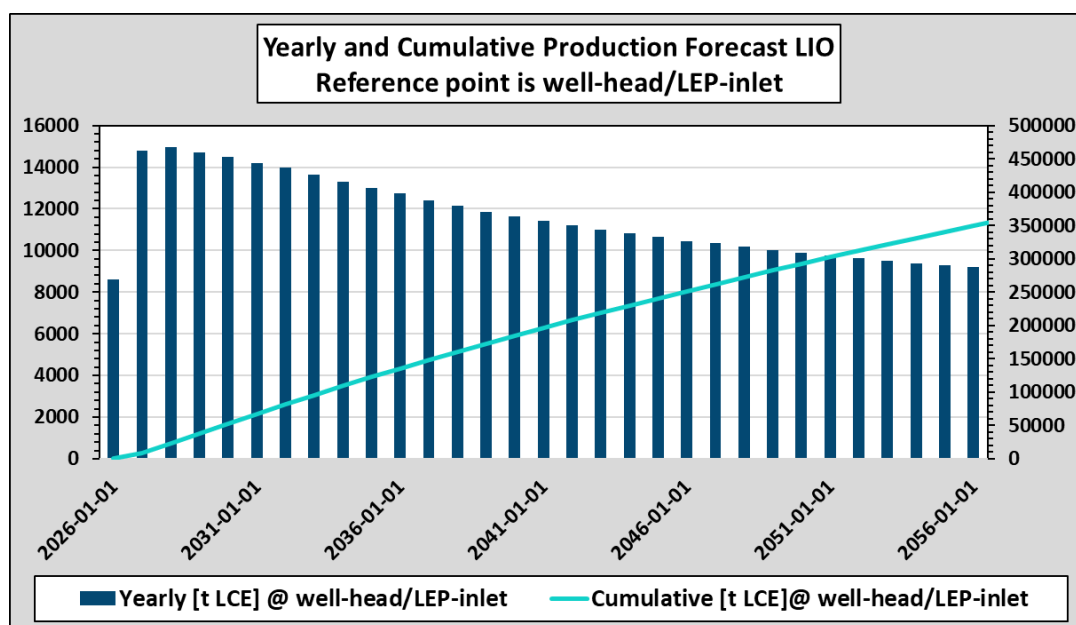


Figure 10.1: Lionheart production forecast for LCE

Table 10.1 shows the Mineral Reserves Estimation for Lionheart (LIO) in LCE units.

Table 10.1: Summary of Mineral Ore Reserves Estimation for Lionheart

Mineral Reserves Estimation	
Vulcan Lionheart zone, Phase One	
Reserves Classification	Economic Reserves Volume at Wellhead Reference Point. Lithium grade: 181mg/l Li
	tonnes LCE
Proved	196,353
Probable	153,546

For Taro, the production forecast peaks at a rate of 8.9 ktpa LHM in 2028 and reaches a cumulative production of 215 kt LHM after 30 years. The technical lithium recovery factor after 30 years of production is 11.7%, which is estimated from the Indicated Resource volume of 1,843 kt LHM (1,618 kt LCE) as reported in Section 7 of this report. For the estimation of Probable Ore Reserves, the cumulative production after 30 years is used, therefore the Probable Ore Reserves are estimated to be 215 kt LHM (189 kt LCE). There are no Proved ore reserves attributable to Taro or Kerner Ost, due to the lack of wells within the licence areas. Figure 10.2 shows the production forecast for Taro and Table 10.2 summarizes the Taro Mineral Reserves Estimate.

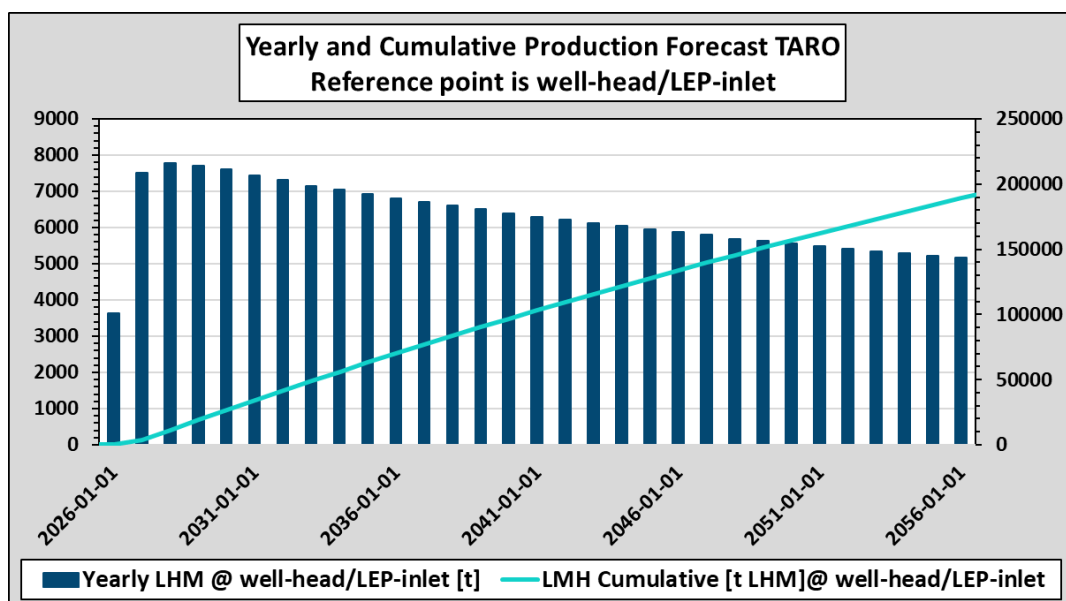


Figure 10.2: Taro production forecast for LCE

Table 10.2: Summary of Mineral Ore Reserves Estimation for Taro

Mineral Reserves Estimation	
Vulcan Taro zone, Phase One	
Reserves Classification	Economic Reserves Volume at Wellhead Reference Point Lithium grade: 181mg/l Li
	tons LCE
Probable	189,070

In the Pre-Feasibility study (PFS) published in January 2021, there were Probable Ore Reserves attributed for the Taro project. At that time the project did not include Kerner Ost and had only two proposed well-sites at Taro Golf and Taro North. The attributed Probable ore reserves were 420 kt LCE.

Whilst the overall Phase One Ore Reserve Estimate for Phase One has grown larger with the inclusion of the Lionheart area, the Mineral Ore Reserve estimate in the DFS and this announcement for Taro concludes with a 55% lower mineral ore reserve estimate as compared to the PFS. This is mainly due to the planned development area being smaller as Taro North is not included in the field development plan of the DFS because the focus for Phase One has shifted to the Lionheart area, where Vulcan has acquired operating production/re-injections wells. Secondly, a more detailed field simulation of the Taro area during the DFS showed less optimal results when compared to the PFS work.

In the PFS Phase Two, Probable Ore Reserves were attributed to the Ortenau licence area, in the amount of 700 kt LCE. This figure was for an early stage, PFS-level study only, and will be reviewed, revised and updated as part of ongoing feasibility studies.

More generally, the results of the PFS should not be relied upon as the Company considers that the material assumptions underpinning that study to be no longer correct in light of the additional studies undertaken in preparing the DFS for Phase One.

It is the opinion of the CP that methods utilized to estimate the Mineral Ore Reserves followed accepted industry practices and utilized a thorough approach. The geologic modelling that established the basis for the dynamic flow modelling was of very high quality and utilized data from existing wells and 3D seismic. The history matching of the existing geothermal wells helped to confirm the model assumptions. Then the iterative approach to test various well placements, dilution uncertainties, and flow rates, established a range of possible outcomes, with the base case representing a reasonable expectation for lithium production for the Phase One projects. The mining method utilized is widely accepted and proven for geothermal and hydrocarbon production with the utilisation of wells for lithium brine production to surface. The drill spacing is defined by the dynamic flow models and has been optimised for efficient reservoir flow.

The Mineral Ore Reserve estimation method established and used for the Vulcan Zero Carbon Lithium™ Project took into consideration the complex nature of this type of lithium brine recovery

from geothermal wells. Consideration was given to reserve estimation methods used for the oil and gas industry from similar reservoirs. But with the reservoir being an active recharging system, there are differences that were accounted for in the decision to define the ore reserves based on number of years of cumulative lithium production. This represents a probabilistic approach where a high level of certainty is associated with the likelihood of producing the Proved Ore Reserves volumes economically, per JORC requirements.

The estimation of Probable Ore Reserves followed a similar test of uncertainty, and the cumulative lithium production after 30 years is believed to be a reasonable representation of what is economically recoverable with applied modifying factors. The modifying factors include the well network design, pilot testing of metallurgical processes, surface facility and infrastructure design, marketing contracts and pricing study, regulatory permitting process, and economic analysis that shows the project is viable.

11. Surface Facility Design and Process Engineering, and Infrastructure

The surface facility design is based on an interconnected design approach with main facility components co-located, like the lithium extraction plant (LEP) and Geothermal power plant (ORC), where the multi-well pads are connected via pipelines (or sometimes co-located at the ORC), and the Central Lithium Plant (CLP) located in the Hoechst Chemical Park near Frankfurt am Main. The lithium chloride product from the LEP will be trucked to the CLP for processing into lithium hydroxide monohydrate (LHM). See Figure 11.1.



Figure 11.1: Overview of Phase One Project Plants

At the LEP the entire system will be built in three closed circuits: a brine cycle, an industrial water cycle, and a gas cycle. Industrial water is demineralized fresh water that circulates in a circuit between the drilling sites and the geothermal process plants. In addition, each Project cluster consists of three components: the well sites are where the brine is extracted, Interconnecting Piping and Power (ICPP) describes a complete pipeline and power line network, and Lionheart/Taro describes a site that houses all further facilities. Figure 11.2 provides an overview of the general process to produce Vulcan's sustainable lithium hydroxide.

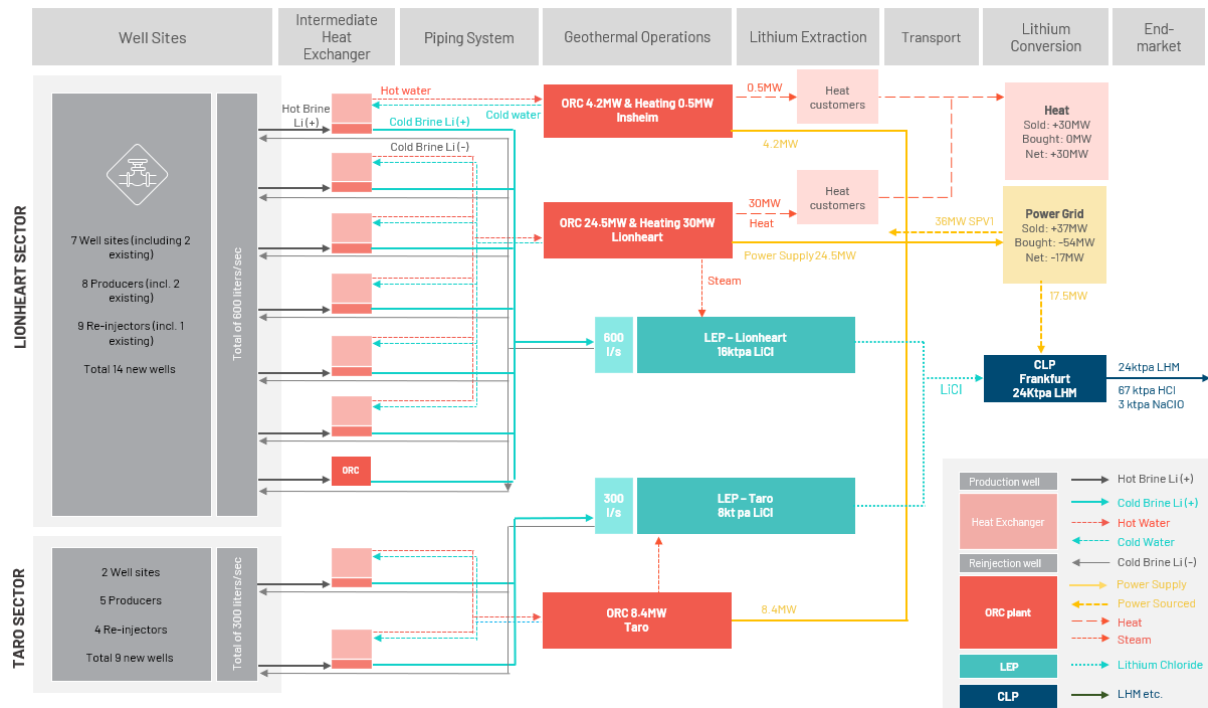


Figure 11.2: Overview of Project Flow Process

The general layout of each Phase One project is similar but varies depending on each location. See Figure 11.3 for the layout of the Lionheart site. See Figure 11.4 for the layout of the Taro site.

Figure 11.3: Layout overview of the planned Lionheart site

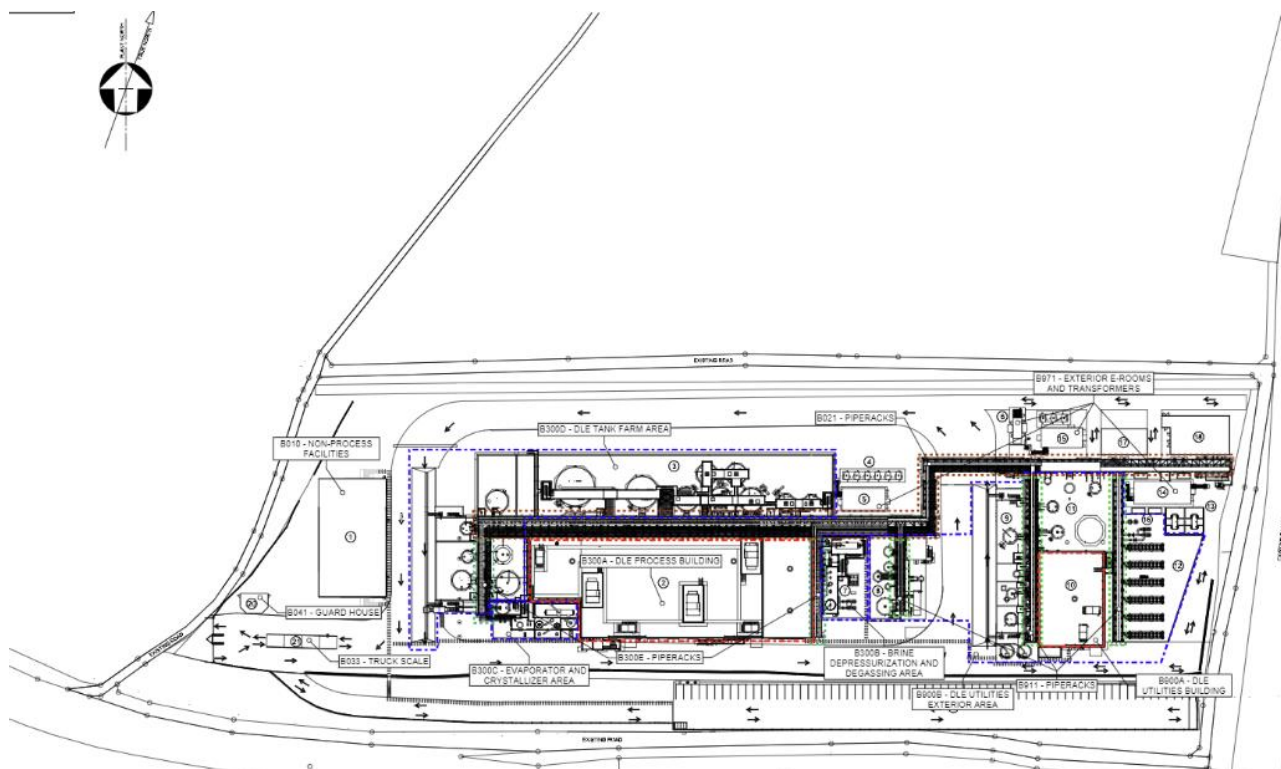


Figure 11.4: Layout overview of the Taro site

The decentralised project design results in special requirements for the transport logistics from the well pad sites to the LEP and the geothermal plants, from raw material suppliers to the LEP or CLP as well as from the LEP to the CLP. Vulcan has decided to solve the logistics between the well pad sites and the LEP by means of a pipeline system in the Lionheart project complex and separately in the Taro project area in view of the climate neutrality and the masses involved. Due to the high concentration and the spatial distances, the concentrated lithium chloride will be transported by regular road transport to the CLP. The power infrastructure between the well pad sites and LEP will be placed in the same trench as the pipeline system to minimise surface disturbance.

Vulcan has been operating pilot plants continuously since April 2021, at the Landau plant and then latterly at the Insheim plant, utilizing the geothermal brine from the existing wells. The PP1 has provided important insights into consistent brine composition and temperatures. A newer high-pressure pilot (PP1-A) has identified value improvements that were incorporated into the brine supply and DLS design at a late stage in the DFS.

A lithium extraction Demonstration plant is being installed adjacent to the Landau geothermal plant site to train Vulcan's operations team in a pre-commercial environment. It is targeted to be operational by mid-2023.

12.Environmental Studies, Permitting and Communication

There is an extensive regulatory framework in place that applies to the Vulcan Zero Carbon Lithium™ Project, regulated at all levels from local to federal to the EU. These regulations ensure safe construction and operation of the wells, infrastructure, and facilities associated with the project, plus

protection of the environment and communities. These regulatory requirements are a key consideration for every aspect of the project planning, development, and operation.

Vulcan aims to have a net positive impact on nature for the benefit of future generations. Vulcan therefore has an important role to play in Europe's decarbonisation journey. Vulcan has a management strategy designed to have minimal impacts on communities and the environment. We strive for continual improvements in our approach and engage in ongoing dialogue with local stakeholders in order to manage the potential impacts of construction and operational activities on the environment, including water, biodiversity, land, and air.

The strategy includes waste management in order to minimise waste and work with sector partners to support the development of a circular electric battery value chain in Europe. Additionally, Vulcan works at minimising all environmental impacts, including seismic activity linked to geothermal drilling, by utilising best practices and remaining compliant with all regulations.

The approach allows for quantification of project related environmental impacts, to understand their drivers, and make decisions about our supply chains and energy use. To minimise future impacts, Vulcan's Environmental Management Policy will continue to be developed and assessed as they advance operations and continue with the strong commitment to have a positive input in the communities and environments in which Vulcan operates. Accordingly, Vulcan strives to understand all environmental aspects associated with their operations and identify and implement measures to mitigate related impacts to the extent possible whilst remaining economically viable.

The main regulatory requirements for the project development approvals are set under the German Federal Mining Act (*Bundesberggesetz: BBergG*), since the project is intended to recover a mineral regulated under this act. Many other major Acts, codes and regulations are followed in order to acquire permits and set operating standards. Vulcan is engaged in direct communication with the regulating authorities to ensure transparency with regards to its project plans and operations.

There are several reports that have been prepared on environmental assessments for the project. Many are embedded in the permitting processes for various project segments. For Phase One the environmental assessments are specific to activities that support the initial development areas, and the existing operational facilities.

Vulcan has engaged in the environmental assessment activities early in the Project planning process to accommodate stakeholder consultation and regulatory approval timelines. The permitting process for geothermal projects in Germany is continuous up to and beyond the point of project construction, until final permission to operate is received (Figure 12.1). To date, the 3D seismic survey permits for the Lionheart area has been approved as well as the three Preliminary Environmental Impact Assessments (UVP-V) for the planned Phase One well developments, thereby negating the need for a full EIA due to minimal impact in these areas. An operating permit for Vulcan's lithium extraction Demo Plant has also been granted. Vulcan has initial approvals in place and the permitting is progressing with finalisation expected within the planned development timeline.

Additionally, the Rig V20's Rig permit for use in Rhineland Palatinate has been submitted.

Rhineland-Palatinate	Mining authority	Licenses	Exploration license	1
		Drilling	Production license	2
			Pre-EIA	3
			Main operation plan (one well site, all wells)	
			Special operating plan: Well pad	
			Special operating plan: Drilling	
			Secure land	
			Drilling start	
		Pipeline	Pre-EIA	
			Secure land	
			Special Operating Plan: Pipeline	
	Pipeline construction			
	Regional authority	ORC	Pre-EIA	
			Land acquisition	
			Building permit	
ORC construction				
Mining authority	LEP Demo	Operation plan	4	
	LEP	Pre-EIA		
		Land acquisition		
		Building permit		
		Special Operating Plan		
Hessen	Regional authority	CLP	Bimsch	
			Building permit	
			CLP construction	

 Permitting progress

 Multiple exploration licenses granted

 Insheim geothermal production license acquired

 Multiple pre-EIAs granted for Phase One, negates need for full EIA for Phase One

 LEP Demonstration Plant operation plan approved

Figure 12.1: Main permitting steps for Phase One and progress. Vulcan notes that the permitting process for a geothermal project in Germany is continuous throughout integrated development right up until the final permission to operate after the plants are built. Vulcan has initial approvals in place, and the permitting is progressing with finalisation expected within the planned development timeline. There is no guarantee that Vulcan will receive all of its permits within the planned time period or at all.



Figure 12.2: Vulcan's permitting process

Vulcan has an extensive communication strategy which has been able to achieve broad media coverage across many levels of stakeholders within Europe, Germany, and local regions, utilizing social media, websites, and other forms. Vulcan recognizes a German initiative to address renewable heat planning for municipalities nationwide, where their current and future operations can play a role in supplying district heat. Vulcan's main communication goal is to work with local mayors and policy makers in the municipalities to pursue together the path of carbon neutral heat supply and carbon neutral lithium. A large part of Vulcan's communication resources is dedicated to this goal.

13. Market Considerations

Vulcan contracted Fastmarkets to prepare a market supply study to evaluate global lithium markets from 2018 to 2040. The intention of the report was to offer insights into how the lithium market will develop with a focus on the lithium hydroxide market and with specific attention given to development in the European Union. However, the analysis is considered on a global basis and in the context of the entire lithium market and supply-chain.

Fastmarkets calculated the supply-demand fundamentals of the global lithium market. Having indicated that the market is undersupplied, Fastmarkets then looked at pricing to understand how the tight supply picture would keep lithium prices supported and the implications for Vulcan’s Project.

Lithium supply has been increasing rapidly over the last few years to satisfy the needs of the growing demand. Figure 13.1 shows how lithium production increased in recent years, except for a slowdown in 2020 caused by the coronavirus pandemic.

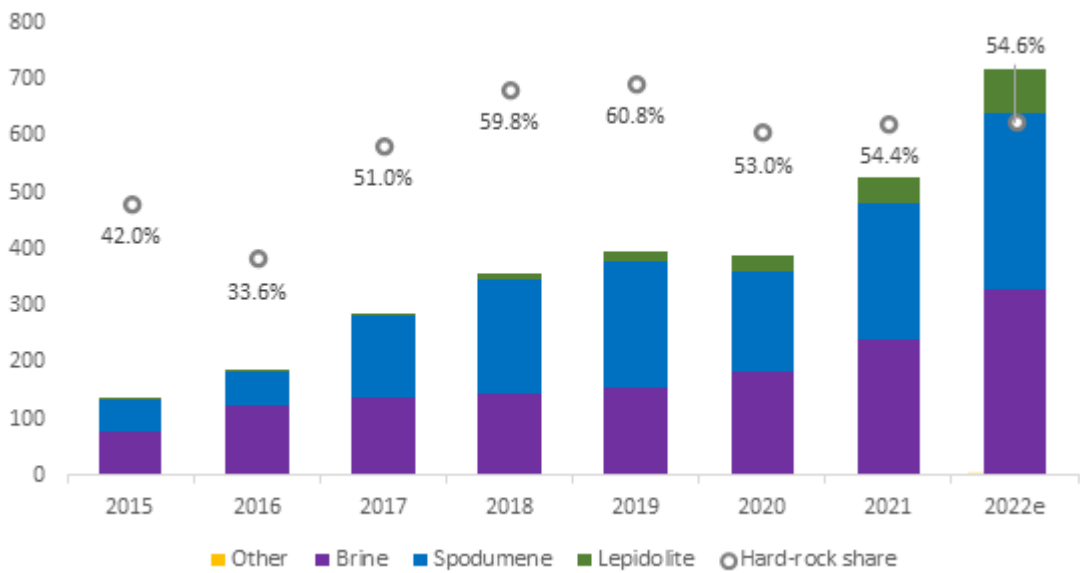


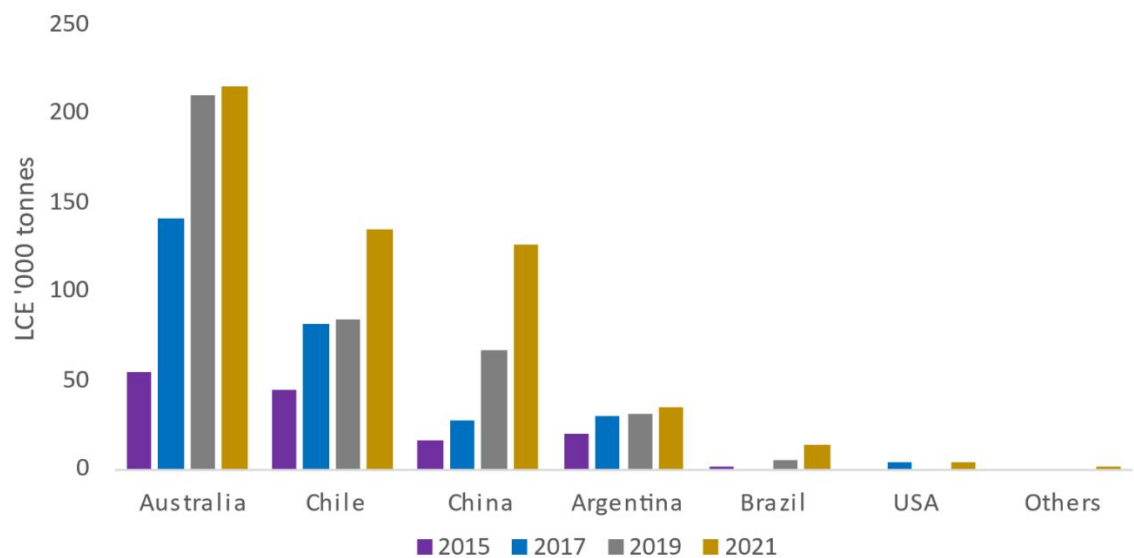
Figure 13.1: Global lithium raw material production (kt LCE) Source: Fastmarkets.

Lithium is produced from two main deposit types, namely brines and hard rock pegmatites. With the high demand for lithium and strong price rises, economically extracting lithium from other deposits, such as clays and mica, are being investigated and developed. While these may be a minor source of

lithium for now, they are forecast to form a greater part of the lithium supply picture within the next five years.

Concentrating on the two main sources, lithium brine deposits tend to have superior operating cost economics comparative to hard rock sources, for lithium carbon equivalent (LCE) production. While hard rock deposits have higher operating costs, brine operations are highly capital intensive at the outset. Other negative factors for development of evaporation-type brine deposits are the long development times (due to design issues and permitting, as well as the long lead time for evaporation to occur) and often an extended period between initial investment and revenue generation. Some of the disadvantages of brine when compared to hard rock extraction are partly mitigated by the development of direct lithium sorption (DLS) and some of the limitations of solar evaporation. Vulcan’s Project is based on an established, commercially viable DLS technology which has been adapted to its URVBF brine.

Major lithium flows come from six countries: Argentina, Australia, Brazil, Chile, China and the United States – see Figure 13.2. Other countries have supplied lithium in recent years, so while these six will continue to supply the market, several other countries are expected to begin or to restart extracting lithium due to current high prices and forthcoming demand tightness.



Source: Fastmarkets

Figure 13.2: Unprocessed lithium production by country (kt LCE).

Figure 13.3 shoes Fastmarkets supply forecasts for lithium raw material production data to 2040, by country. This includes on-going projects as well as those that are at the earliest stage of investigation and development, and those which may not advance to commercialisation.

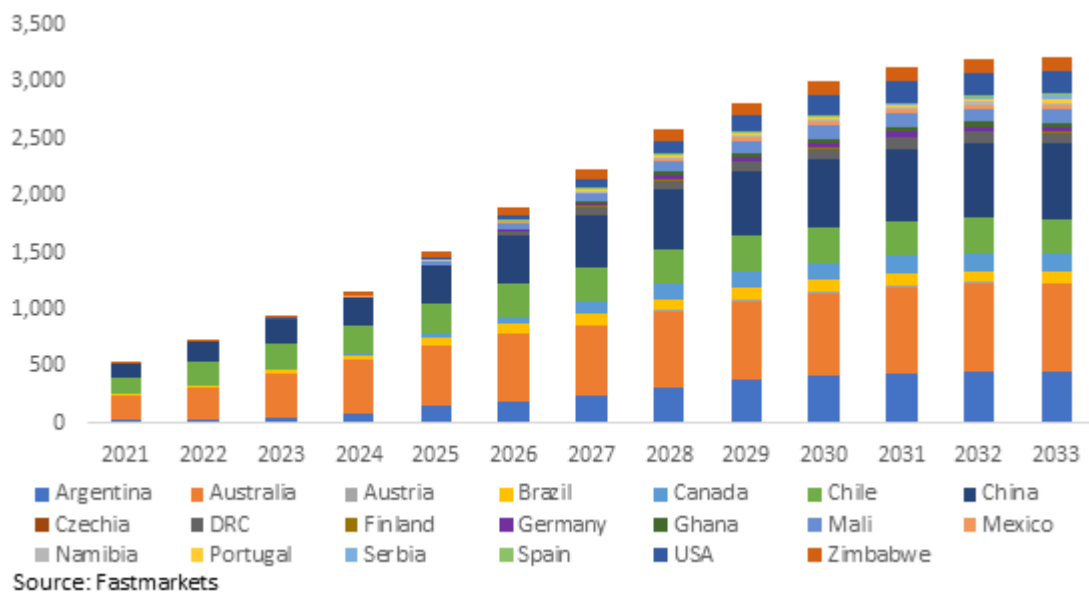


Figure 13.3: Lithium forecast production by country (kt LCE).

The recent up-tick in interest in lithium may be centred on the potential for growth in the battery and energy storage solutions sectors however, lithium still has several important traditional uses. Use in these sectors is forecast to contribute steady demand into the future. However, with comparatively low growth rates for each of the applications, the market share of traditional applications is anticipated to drop in the face of increased demand for battery applications. This trend is already well underway with traditional markets having accounted for 75% in 2010, falling to 26% in 2021.

The increasing need for lithium is being driven by surging EV and other eMobility demands. Besides Li-ion batteries, no other proven battery type offers the properties to store sufficient power in a light and low-cost cell to enable the EV revolution. With EVs being championed to help decarbonisation efforts, Li-ion batteries have seen significant development and output growth in recent years.

Based on Fastmarkets data, EV penetration rates are forecast to show strong growth over coming years, helping incentivise investment in the battery supply chain. Hybrids and plug-in hybrids (PHEV) will continue to dominate global sales, with battery electric vehicle (BEV) sales accounting for just 2.0% of total car sales in 2019. However, this is forecast to lift each year to reach total sales of 48.6 m units by 2033 and account for 54% of the 2019-sales volume. See Figure 13.4. Fastmarkets has based growth forecasts on the 2019 sales volume due to the weakness of sales in 2020 and 2021, caused by semiconductor shortages and production reduction due to pandemic-related lockdowns.

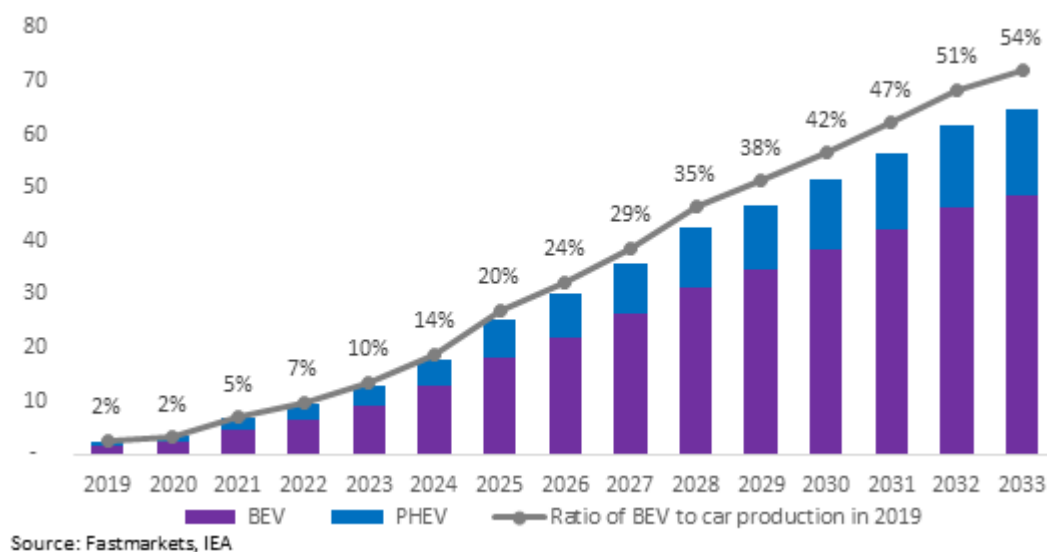


Figure 13.4: Global BEV and PHEV sales forecast (Million units).

When looking at the lithium market balance, Fastmarkets expects apparent supply growth to fail to keep pace with demand growth over the forecast period – see Figure 13.5. This is despite including all identifiable projects – with appropriate discounting for the likelihood of projects coming to market – and known expansions plans at existing facilities. Projects that are undefined and where there is little to no information available have not been included in the analysis. There are supply and demand risks that could affect the future outcome, with risk of lower-than-expected outputs and EV use of lithium falling out of favour.

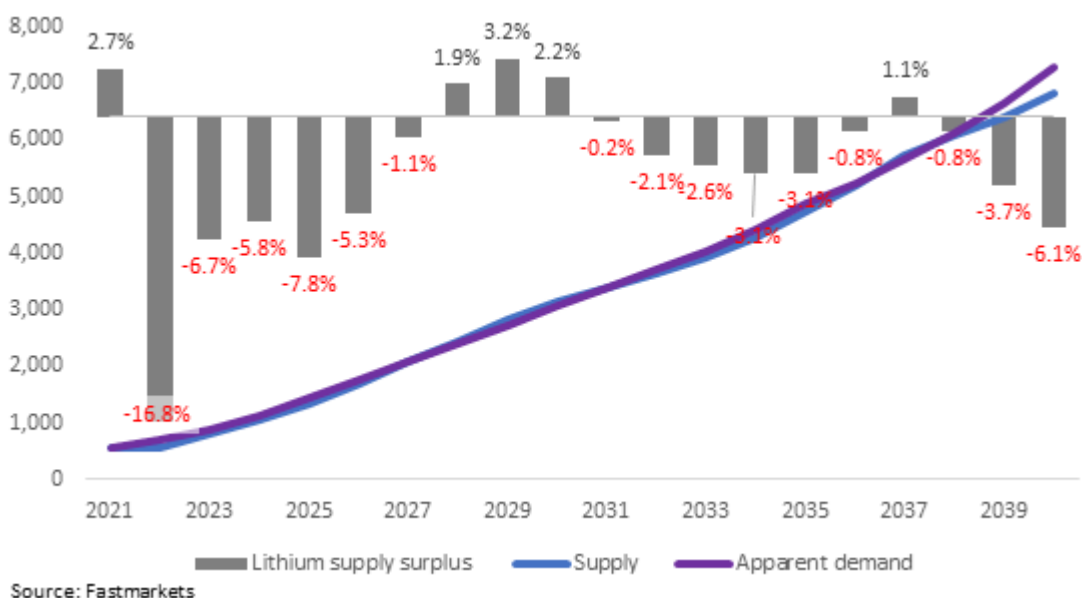


Figure 13.5: Supply-demand balance, and surplus as share of supply (kt, %) (Fastmarkets).

Fastmarkets also considered the GHG emissions potential from the various lithium sources. When assessing the lifecycle emissions of an EV compared to an internal combustion engine vehicle (ICE), the emissions related to manufacturing, battery assembly and battery minerals typically see the EV's GHG

footprint being initially higher than those of an ICE. However, over the lifetime of the EV, the emissions from using electricity compared to fuel is significantly reduced, being 11.7tCO₂e versus 35.9tCO₂e²⁶ respectively. It is expected that battery minerals related emissions will decrease as cleaner extraction methods come online. Fastmarkets' analysis has included Vulcan's planned operation for reference, based off data from an LCA conducted by Vulcan's consultant, Minviro. (See Figure 13.6). As can be seen, Vulcan would potentially have the lowest emissions of all existing operations. This would potentially be attractive to customers and a competitive advantage.

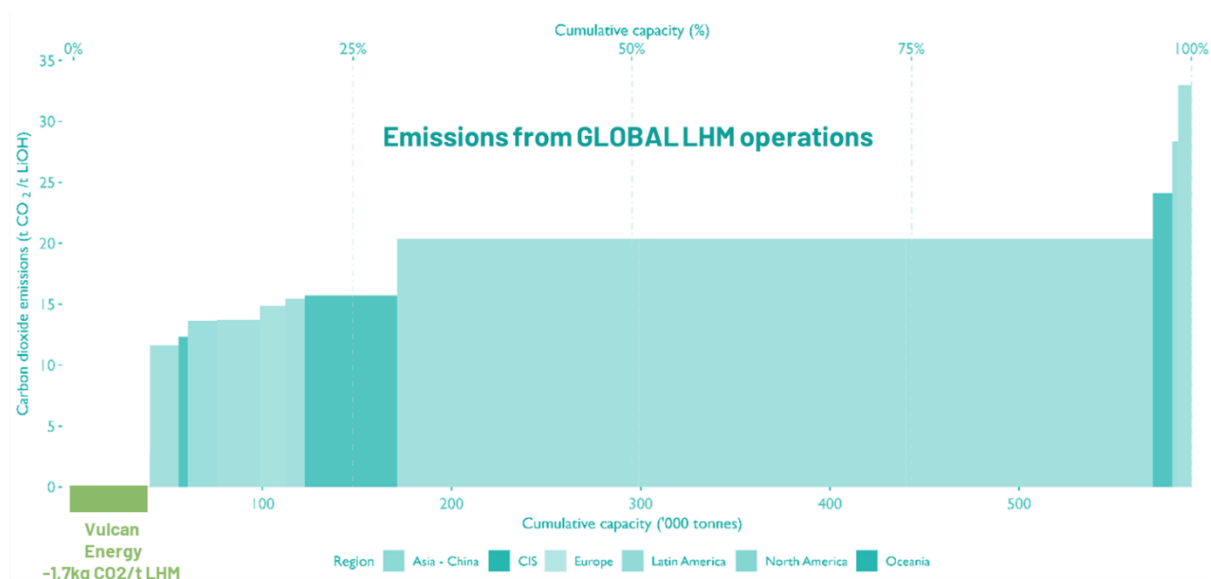


Figure 13.6: Emissions from lithium hydroxide operations (t CO₂ eq./t LiOH)²⁷.

Vulcan has concluded five long term lithium supply agreements, also referred to as offtakes, with five key players in the European lithium-ion battery supply chain. The contract terms are from 5-10 years with some having flexibility to extend. The companies are:

- Renault Group, France
- Stellantis, France
- Volkswagen Group, Germany
- Umicore, Belgium
- LG Energy Solution, South Korea

14. Estimated Project Economics

A detailed economic model was undertaken by Vulcan for the Phase One DFS. As well as the fully integrated Phase One approach, the model evaluates two options for different business structures that allow Vulcan to optimise the value of each component of the project.

Option One (Figure 14.1) comprises the combination of two separate Special Purpose Vehicles (SPVs) analysed both separately, meaning operating independently. SPV1 would include the equipment and processes associated with the Lionheart and Taro zones in Phase One (Land, wells, ICPP, ORCs, LEPs). SPV1's outputs include energy in the form of electricity, steam and heat. All steam is consumed internally whilst electricity is sold to the grid and heat is sold to customers located nearby. SPV1's outputs also include Lithium Chloride (LiCl) solution (40%) which is sold to SPV2. SPV2 includes the CLP.

SPV2s outputs include LHM, HCl and Sodium Hypochlorite (NaOCl). The LHM is sold to the Holdco. HCl and NaOCl are sold directly to the market.

Option Two (Figure 14.2) comprises the combination of two separate business: Geothermal and Lithium. The Geothermal business is a proposed SPV which includes land, wells, ICPP and ORCs whilst the Lithium business includes two proposed SPVs: SPV LEP and SPV CLP. SPV Geothermal outputs include energy in the form of electricity, steam, and heat. SPV LEP’s output is LiCl solution (40%) which is sold to SPV CLP. SPV CLP’s outputs include LHM, HCl and NaOCl.

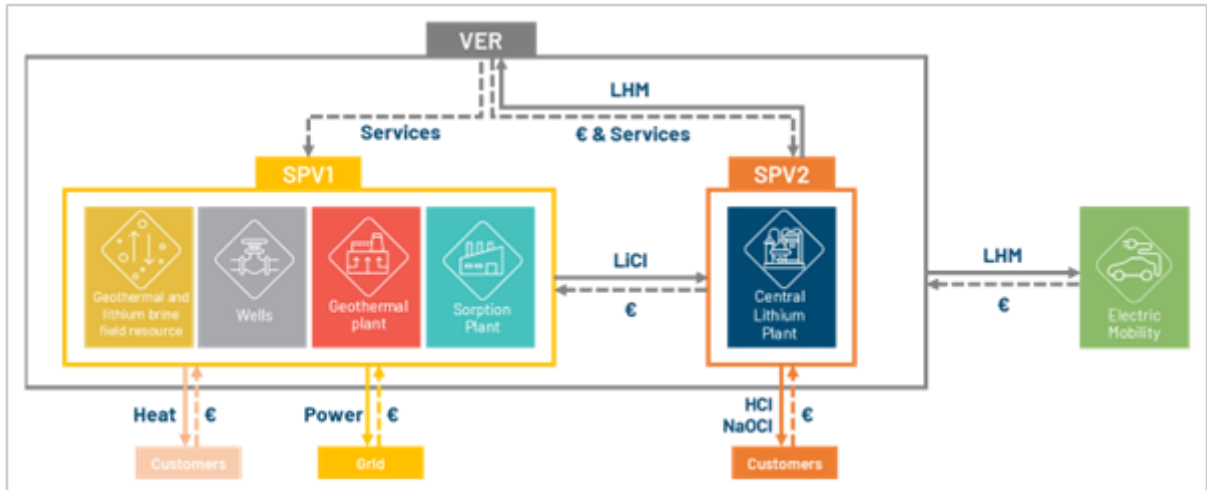


Figure 14.1: Option One - Value flow of target operating model.

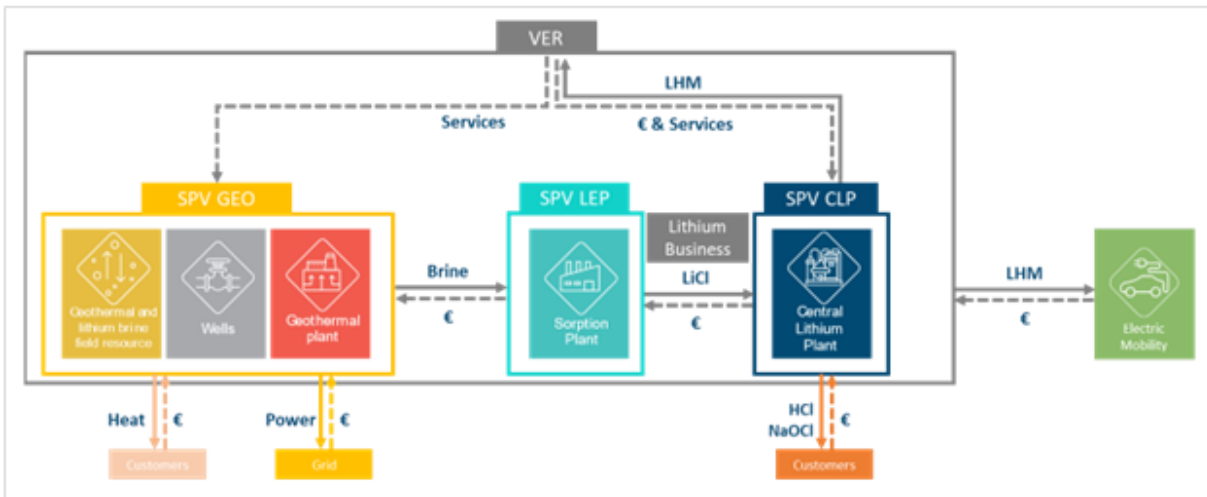


Figure 14.2: Option Two - Value flow of target operating model.

The inputs to the economic model are extensive. The geothermal brine production forecast is from the dynamic flow modelling as described in Section 10 of this IER. The estimated capital and operating costs are derived from a combination of sources from Hatch for the design basis for the surface facilities. The well related costs are provided by Vulcan and the ORC plant costs are from Turboden.

The key estimated inputs and outputs of the economic analysis and financial model are listed below (Table 14.1).

Table 14.1: Key estimated inputs and outputs of economic model.

Geothermal assets	
Input	
Brine Flow	900 l/s total for Phase One 600 l/s for Lionheart 300 l/s for Taro
Lithium Concentration in Brine	181 mg/l
Power consumed	143,077MWh/a
Output	
Power produced and sold	307,893MWh/a
Heat produced and sold	252,300MWth/a
Steam produced	5.9MW/a
Li-rich brine flow to LEP	900 l/s total for Phase One
LEP assets	
Input	
Brine Flow from geothermal asset	900 l/s total for Phase One
Steam consumed	5.9MW/a
Power consumed	134,397MWh/a
Output	
LiCl Production in LHM equivalent*	24,755 t/a
CLP asset	
Input	
LiCl in LHM equivalent*	24,755 t/a
Power consumed	153,431MWh/a
Output	
LHM Production (Battery-grade)	24,755 t/a
HCl Production (30%wt)	67,500 t/a (net of CLP consumption)
Sodium Hypochlorite (15.8%wt)	2,975 t/a
*Capacity	

The financial model includes consideration of operational constraints and sensitivities to model the various options under consideration in the DFS.

Expected Commodity Prices

LHM

The forecast average realised price per tonne of LHM in the economic model is taking into consideration Fastmarkets' long term price forecast (min 57.5% LiOH) (\$/kg, EU & US) and combining it with Vulcan's pricing mechanisms concluded in its offtake agreements. See Table 14.2 and Figure 14.3 below.

Table 14.2: DFS economic model LHM price forecast, using Fastmarkets combined with Vulcan's offtake pricing mechanisms.

	Forecast average price realised combining Fastmarkets price forecast and Vulcan offtake agreements pricing mechanisms (€/t)
Average	30,283
2026	37,524
2027	33,743
2028	21,153
2029	23,477
2030	19,209

2031	15,571
2032	22,385
2033	24,975
2034	26,177
2035	27,378
2036	28,580
2037	33,020
2038	34,353
2039	36,018
2040	37,017
2041	37,017
2042	37,017
2043	37,017
2044	37,017
Long term price	37,017

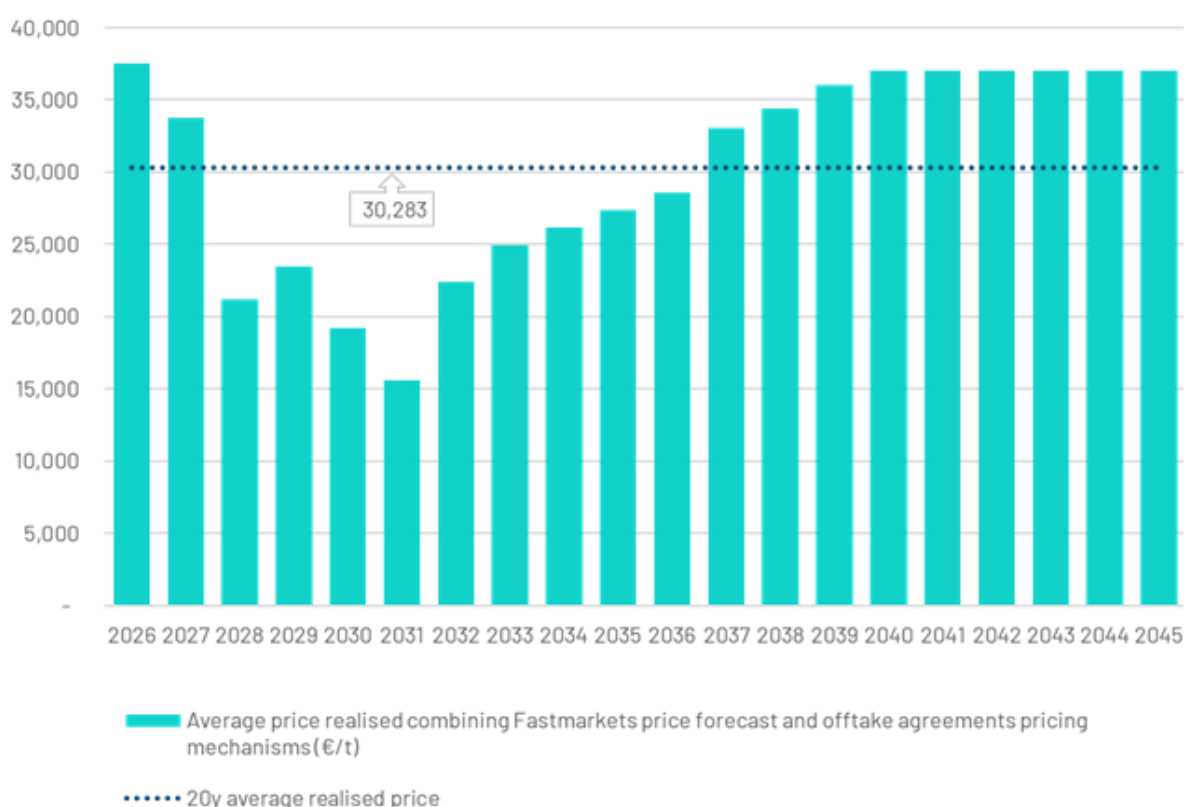


Figure 14.3: DFS economic model LHM forecast realised price, 20y forecast (€/t).28.

During the first few months of Vulcan's operations from its planned commercial CLP, the Company will have to send samples of its LHM to its offtakers to be qualified as battery grade. Therefore, Vulcan will not sell its product as battery grade during the initial period of production to its offtakers but will have to sell some unqualified product to the market which will include a discount. This has been taken into consideration in the financial model.

Energy

Power

Vulcan intends to sell power to the grid from its geothermal facilities. Vulcan is subject to the German Renewable Energies Act (*Erneuerbare-Energien-Gesetz: EEG*) which applies to all plants for the generation of electricity from renewable energies and therefore also to the geothermal plants which Vulcan Group operates and intends to operate as a part of its renewable energy business.

The EEG provides a feed-in tariff of €252/MWh for the power sold to the grid by geothermal assets. The feed-in tariff doesn't act as a fixed price but as a price floor, which means that if power prices go over the feed-in tariff, the operator can sell power at those higher prices. In Vulcan's financial model, Aurora Energy Research's power price forecast is used, and prices do not exceed the feed in tariff. For geothermal plants commissioned after 31 December 2023, a decreased statutory tariff applies. As a rule, the statutory tariff decreases by 0.5% on an annual basis compared to the preceding year, noting that the statutory tariff in place at the date of commissioning of an individual plant applies to this plant throughout its remuneration period and does not further decrease. The remuneration under the EEG is typically paid for a period of 20 years beginning from the commissioning date plus the remaining period of the calendar year in which the respective plant was commissioned.

Vulcan targets to start its power production by the end of 2025, therefore it plans to secure a €248/MWh tariff for 20 years. Once the 20-year period lapses, power is planned to be sold to the grid without the feed-in tariff. See Figure 14.4 below.

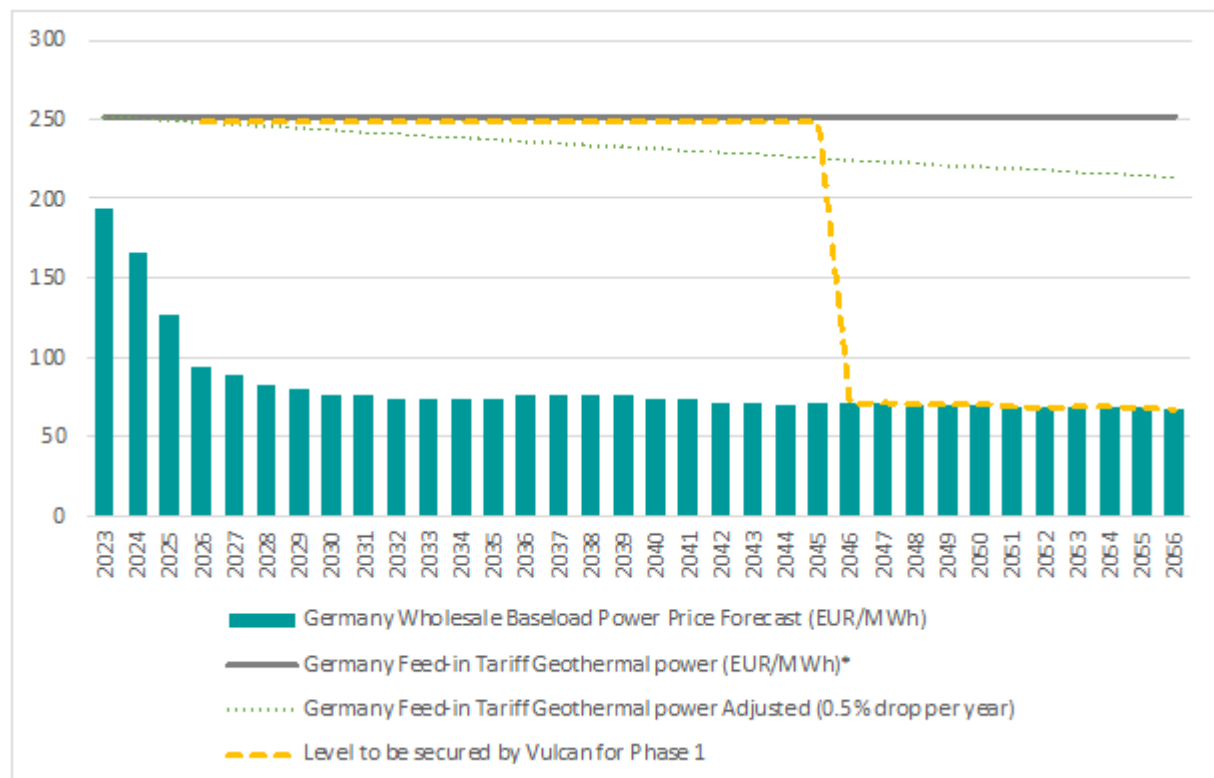


Figure 14.4: EEG Feed-in Tariff (€/MWh). *EEG Feed-in tariff guaranteed for 20 years from start of operation but from 2024, the Feed-in tariff drops by 0.5% per year. Source baseload power price forecast: Aurora Energy Research.

Heat

Vulcan will also sell heat to nearby customers. Vulcan has already concluded a large heat offtake agreement with MVV in Mannheim, but it will be covered by Phase Two of the Project.²⁹ The Company is in advanced discussions with local municipalities and utilities to sell its heat production as part of Phase One.

By-Product Chemicals

Vulcan will produce two by-products at its CLP: Hydrochloric Acid (HCl) and Sodium Hypochlorite (NaOCl). Both products are basic chemicals with thousands of customers in Europe and can be sold locally. Both products, but especially HCl, have very volatile prices and are difficult to forecast. According to OPIS, 2022 HCl contract prices were reported around €125/t in Europe³⁰ whilst NaOCl at €250/t FOB. Those by-products are non-core to Vulcan's business model.

Taxation Regime

Vulcan has applied a Project tax rate of 29.175% for assets in the Rhineland-Palatinate area and 31.1% in Hesse.

Technical Assumptions

Key Technical Assumptions

As part of the economic analysis, Vulcan has applied production rates in-line with feedback and test work data received from its technical teams. Phase One considers the production of geothermal energy in the form of steam, heat and electricity and of lithium chloride through two Project areas (Lionheart and Taro). LHM is produced at the CLP.

A two-and-a-half-year construction schedule is applied with first production, or so called Start of Production (SOP) commencing end of 2025. For a more comprehensive list of assumptions used in the DFS, please see ASX announcement entitled "Vulcan Zero Carbon Lithium™ Project Phase One DFS results and Resources-Reserves update" and dated 13 February 2023.

It is assumed that by SOP, both Lionheart and Taro have access to 100% of the brine flow rates from the wells (600l/s from Lionheart and 300l/s from Taro). Once the brine flow rate is available, production ramp up is faster for the ORC (6 months) than for the LEP and CLP (24 months; Table 14.3).

Table 14.3: Production ramp-up LEP and CLP.

	Q1 2026	Q2 2026	Q3 2026	Q4 2026	Q1 2027	Q2 2027	Q3 2027	Q4 2027
Production ramp-up	25%	50%	65%	80%	90%	95%	99%	100%

Energy Balance

It is intended that Vulcan will have the capacity to produce more than 300GWh of electricity from three ORC plants (including Vulcan's existing, operational plant) as part of Phase One that will be sold to the grid. Additionally, it will also have the capacity to produce more than 250GWh of heat that is planned to be supplied to nearby customers as district heating and almost 6MW of renewable steam consumed internally. As described in the Table 14.4 and Figure 14.5 below, Vulcan is targeting to be a net heat

supplier, a neutral steam consumer, and a net electricity consumer, with an overall net positive energy balance (across heat and power), i.e., a net producer of energy.

Table 14.4: Phase One- Targeted Energy output.

	Insheim ORC	Lionheart ORC	Taro ORC	Total
Power Production (MW)	4.2	24.5	8.4	36.8
Heat Production (MW)	0.5	29.9	0.0	30.4
Power Production (MWh)	34,856	203,326	69,712	307,893
Heat Production (MWh)	4,150	248,140	-	252,290

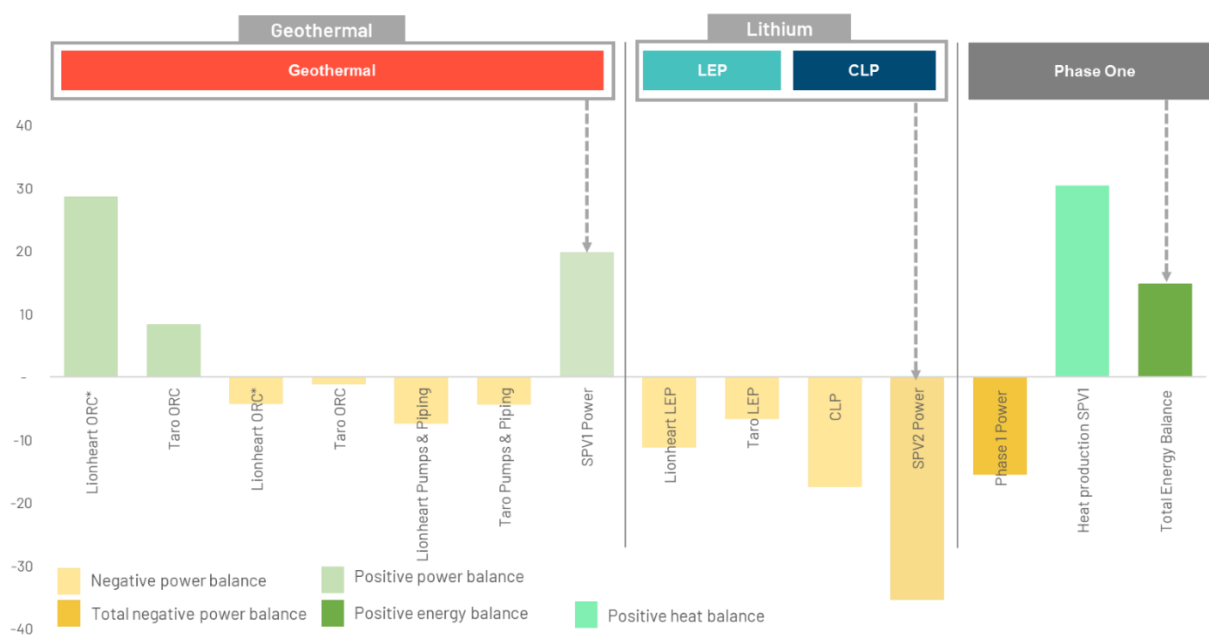


Figure 14.5: Phase One - Targeted Energy Balance.

According to Minviro, an independent consulting firm who specializes in Life Cycle Assessments for battery metals, Vulcan's Project, including all three scopes, will have a forecast negative carbon footprint of -1.7t of CO₂ per ton of LHM produced.

Lithium dilution

An estimate of lithium dilution (Figure 14.6) was applied to the production forecast as the re-injected brine will be subject to a reduction in lithium concentration over time as the reservoir is affected by production and reinjection in the swept area. This is projected to impact revenues as with the same amount of brine extracted, less lithium is being produced. Vulcan's financial model takes into consideration lithium dilution at each well site but does not take into consideration a potential recharge of the lithium which may leach-out from the mica-rich basement rocks over time, or in-flow from surrounding areas outside of Vulcan's licenses, or the drilling of additional production wells to boost production. On average, in the Project area, lithium concentration drops by ~1.6% per year.³²

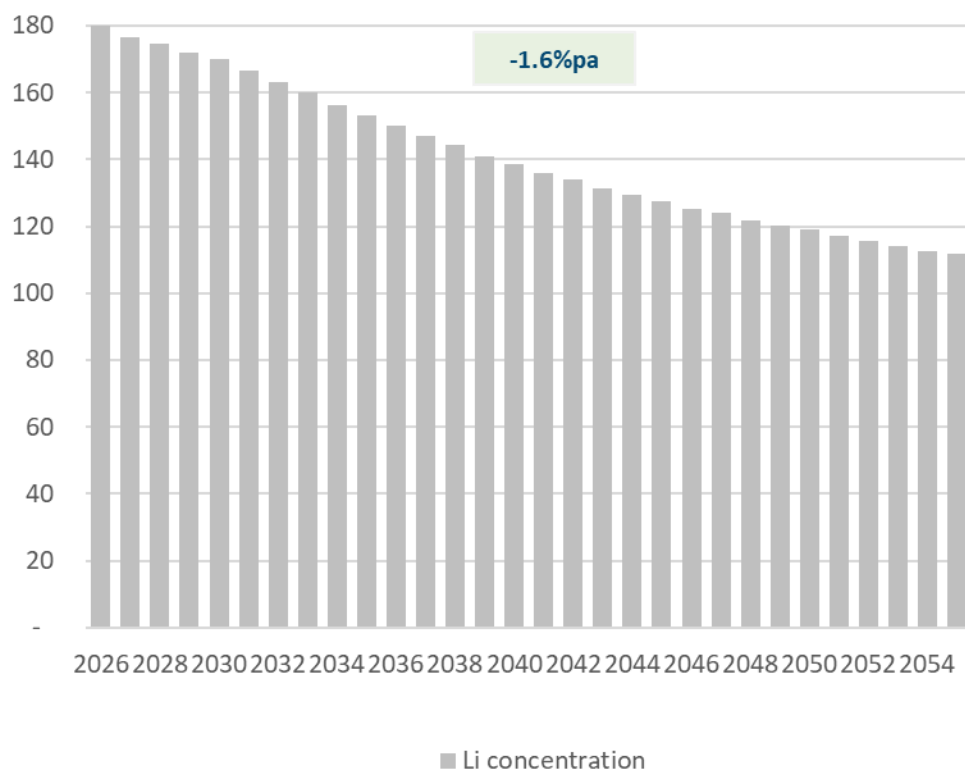


Figure 14.6: Phase One – estimated Lithium Dilution (Li ppm), averaged over both zones in Phase One.

Estimated Lithium Production

Taking into consideration the factors listed below, Phase One LHM output has been calculated (Figure 14.7) and displayed in the graph below. A steady decrease is observed over time, associated with long term dilution of the reservoir. This could be offset in future by adding further production wells and allowing existing production wells to become solely used for renewable energy generation.

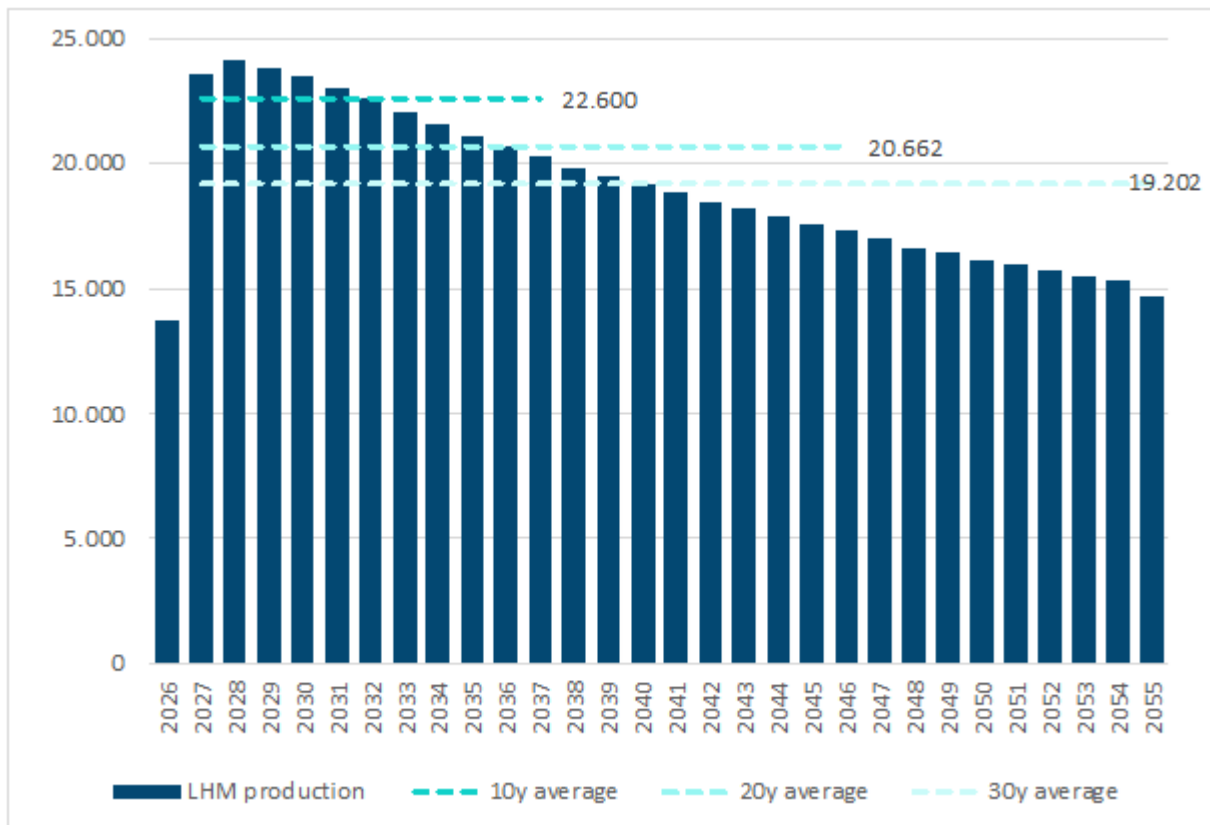


Figure 14.7: Phase One - targeted LHM Production, tpa. *Excluding ramp-up in 2026 in average calculation.

Estimated Energy Production

Phase One energy output has been displayed in Figure 14.8 and averages around 307,000MWh/a power and 160,000MWh heat, which remains fairly stable during the Project duration as no significant temperature drop is expected or decline in flow rates, consistent with Vulcan's current operations, which have seen no temperature drop in over a decade of operation.³³

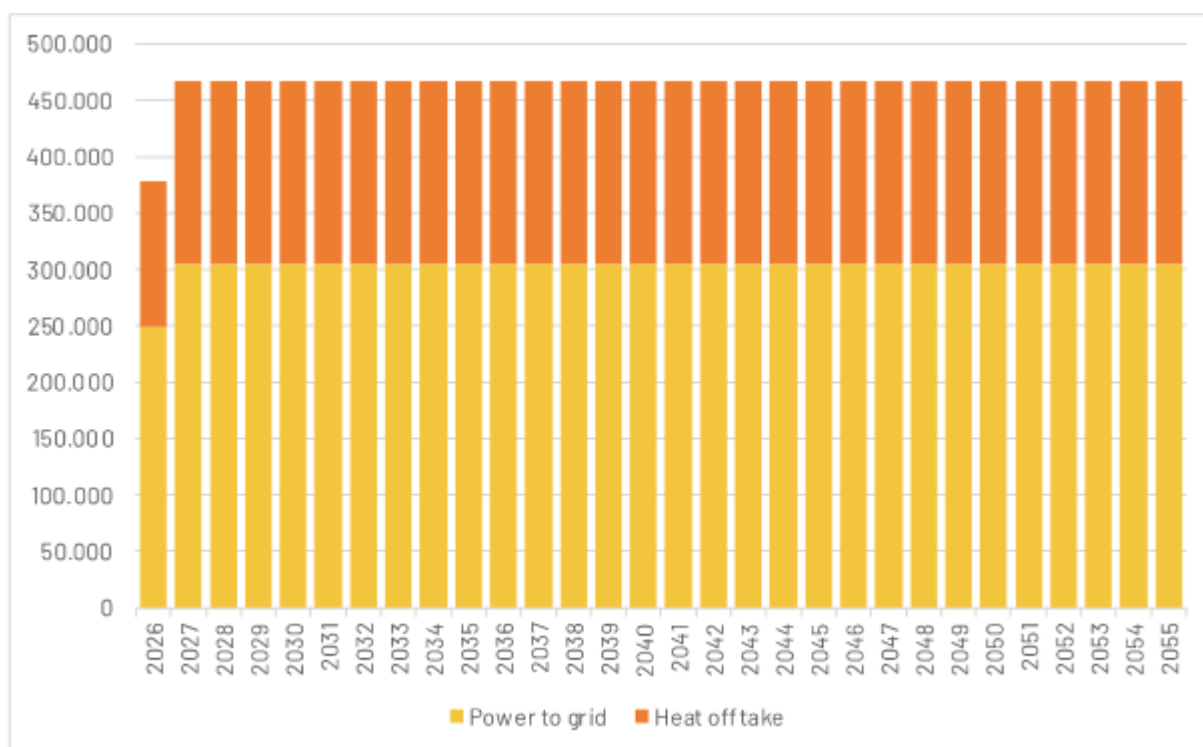


Figure 14.8: Phase One - Energy Production, 30 years, MWh/a.

Estimated Operating Costs

Vulcan has applied operating costs in-line with the costs supplied by Hatch for the lithium part of the business, with internally calculated costs for geothermal operations. By far the largest project cost component for Vulcan is energy in the form of power. It accounts for more than a third of the total OPEX. Labour is project to be the second largest estimated OPEX component, far behind, accounting for 20% of the total. A contingency of 11% is included in the estimated OPEX displayed below in Table 8.

Table 14.5: Key target operating cost inputs (€/M/a), 20y average.

	Geo OPEX (M€/a)	LEP OPEX (M€/a)	CLP OPEX (M€/a)	OPEX Phase One (M€/a)	OPEX % of total
Reagents	-	1.3	1.08	2.34	2%
Operating Supplies	-	7.0	1.85	8.82	8%
Maintenance Supplies	2.0	11.3	5.23	18.51	17%
Water	-	0.2	2.72	2.87	3%
Steam	-	-	1.90	1.90	2%
Nitrogen	-	1.4	0.20	1.56	1%
Energy	18.3	12.2	11.51	42.01	38%
Labour	1.4	13.2	8.66	23.31	21%
Trucking	-	2.2	-	2.18	2%
Services & Others	-	6.2	2.07	8.30	7%
Total Estimated OPEX	22	55	35	112	100%

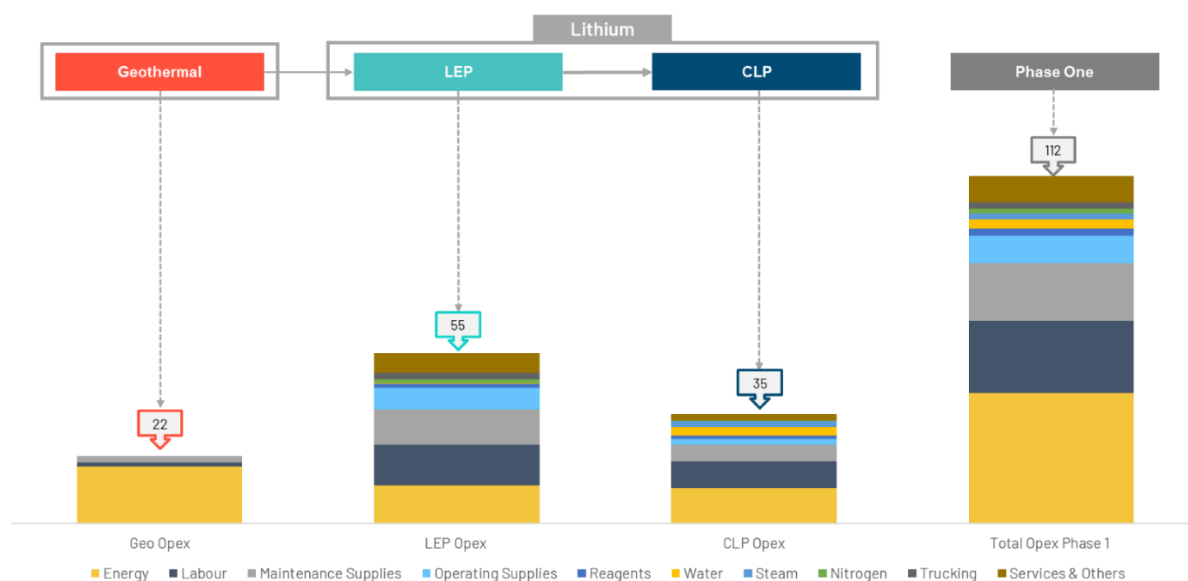


Figure 14.9: Key estimated operating cost inputs (€/a), 20y average.

Lithium specific costs are also dominated by electricity costs, which is similar to other lithium assets globally. The difference with most other lithium assets and Vulcan's Project is that a majority of power consumption is offset by the geothermal assets selling more than 300,000MWh of green electricity to the grid every year.

Table 14.6: Key estimated lithium extraction and conversion operating cost inputs.

	LEP OPEX €/M/y	%	LEP €/t LHM*	CLP OPEX €/M/y	%	CLP OPEX €/t LHM*	LHM total OPEX €/Mpy	%	LHM total OPEX €/t*
Reagents	1.3	2%	61	1.08	3%	52	2.34	3%	113
Operating Supplies	7.0	13%	338	1.85	5%	89	8.82	10%	427
Maintenance Supplies	11.3	21%	547	5.23	15%	253	16.53	18%	800
Water	0.2	0%	7	2.72	8%	132	2.87	3%	139
Steam	-	0%	-	1.90	5%	92	1.90	2%	92
Nitrogen	1.4	2%	66	0.20	1%	10	1.56	2%	75
Energy	12.2	22%	591	11.51	33%	557	23.72	26%	1,148
Labour	13.2	24%	639	8.66	25%	419	21.87	24%	1,058
Trucking	2.2	4%	106	-	0%	-	2.18	2%	106
Services & Others	6.2	11%	302	2.07	6%	100	8.30	9%	402
Total OPEX	54.9	100%	2,656	35.20	100%	1,704	90.07	100%	4,359

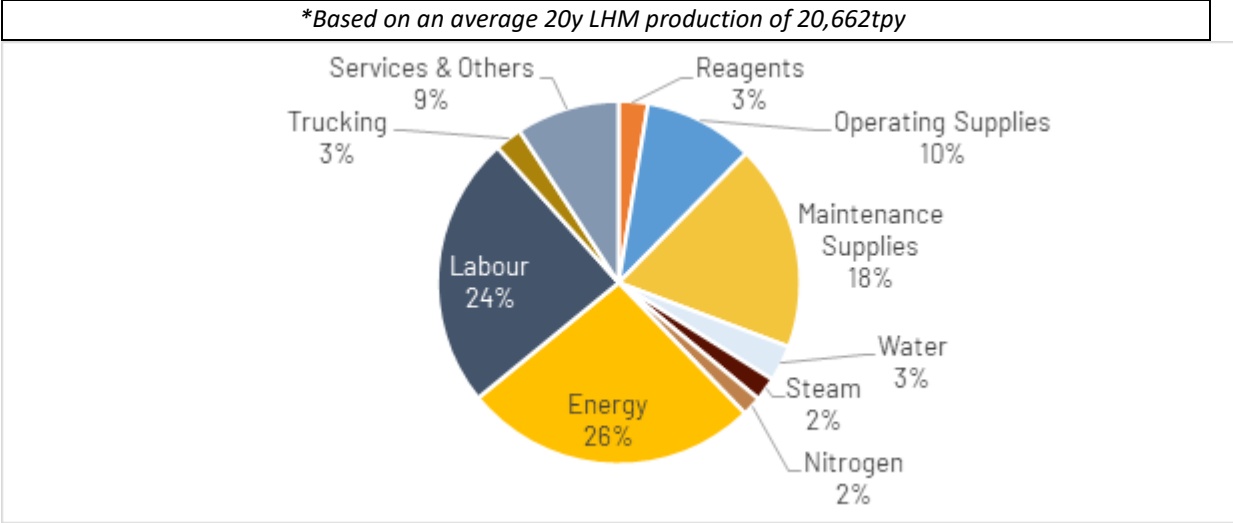


Figure 14.10: LHM estimated OPEX breakdown (%).

Electricity

Electricity cost is estimated to be the largest estimated operating cost in Vulcan’s Project. The cost of electricity is calculated by using a long-term power price forecast for the German grid and adding location and consumption specific costs including fees and taxes. The forecast displayed in the (Figure 14.11) below is not including grid costs as it is site specific but is displaying the long-term power price forecast as supplied by Aurora Energy Advisory. Vulcan is estimated to pay on average, over the first 20 years of its operation, €77/MWh for power, pre-taxes and grid associated costs.

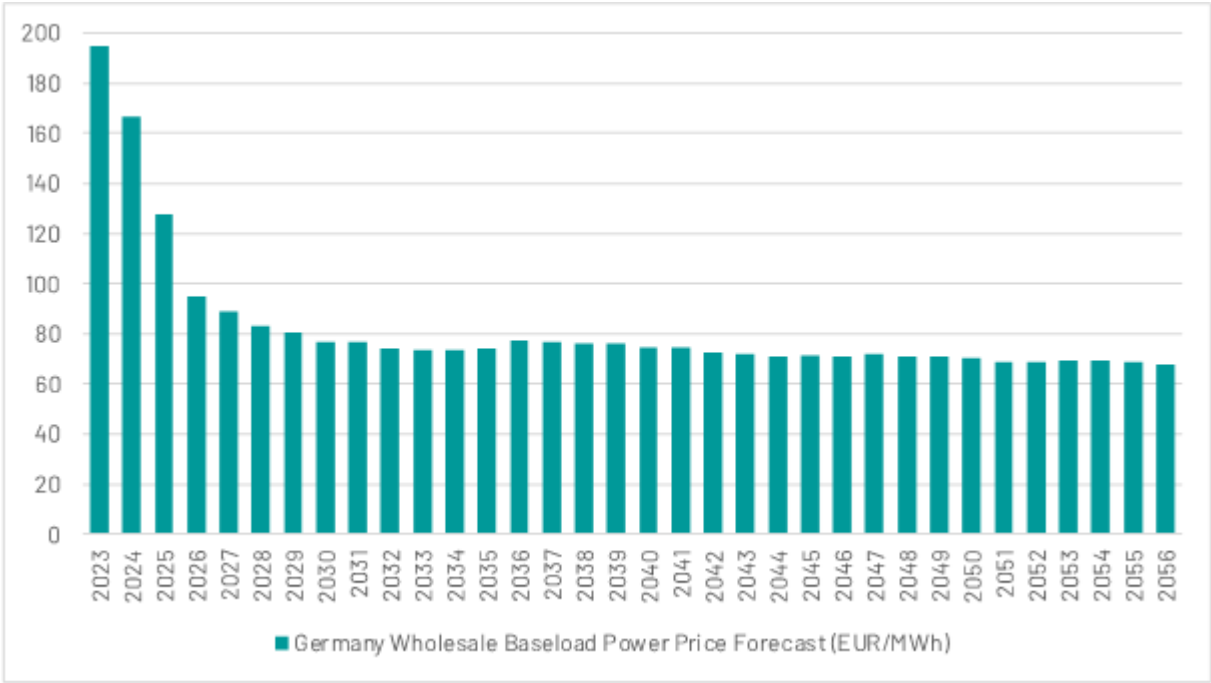


Figure 14.11: Power price forecast (€/MWh) Aurora Energy Research.

Forecast Estimated Global Cost Curve Position

Vulcan's Phase One OPEX is forecast at around €4,359 or US\$4,577 and currently places the Project at the bottom of the global cost curve for LHM, according to analyst forecast data from Fastmarkets (Figure 14.12). Vulcan benefits from not having to purchase feedstock of its lithium production, which is the main OPEX component for all spodumene converters, mostly located in China. Vulcan also benefits from a technology that uses a limited volume of reagents, which is the main OPEX component for brine producers in South America.

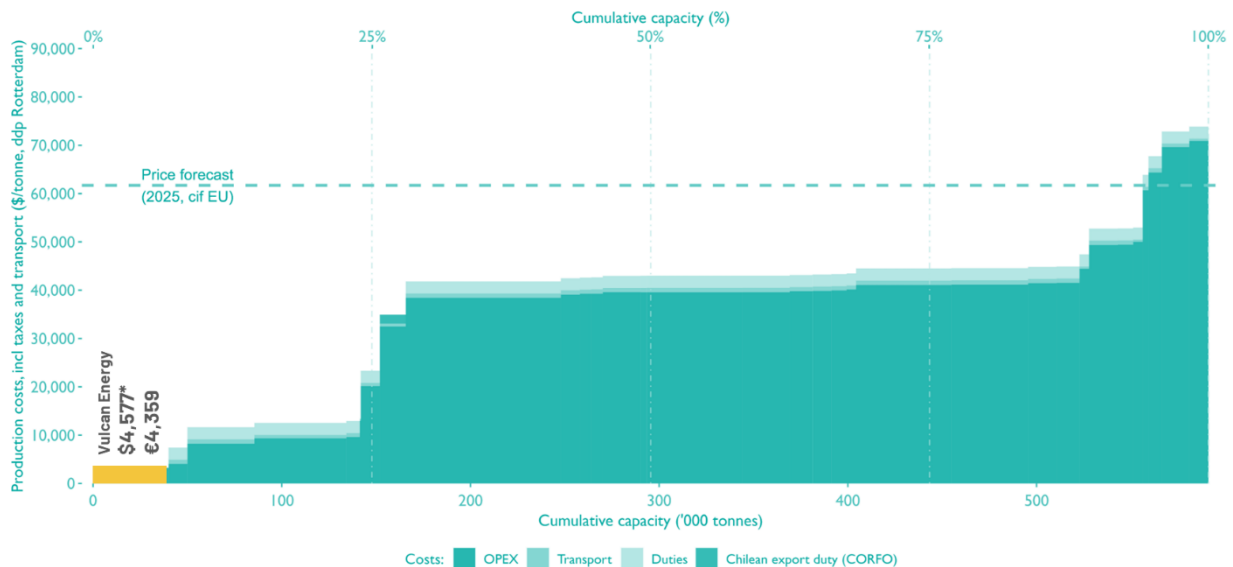


Figure 14.12: Forecast Fastmarkets Global Cost Curve LHM, Delivered Costs 2025 (\$/tonne, ddp Rotterdam), and Vulcan's forecast costs.³⁴

Estimated Capital Expenditure

Vulcan has developed its Phase One capital expenditure (CAPEX) estimate in-line with international and inhouse cost guidelines. Total estimated CAPEX estimate for this phase is €1,496M as described in the Table below.

The CAPEX is built up for each project with an understanding of direct and indirect cost. Sufficient engineering and procurement definition has been completed across the projects to determine overall accuracy. The Phase One contract strategy has been used to understand when further indirect cost (i.e., EPCM fee) need to be applied or when to build in risk and contingency. Owner's cost has also been identified into the overall CAPEX estimate.

Estimate Accuracy Based on Design Maturity: SPV Geothermal Est at +/- 20%, SPV Lithium Est at +20/-15%. SPV Lithium planned to have the original DFS estimate at Class 3 accuracy (+/-15%), however several value improvements opportunities were identified late in the DFS, and sufficient engineering was not able to be completed to achieve Class 3, therefore these opportunities have a lower accuracy than the original estimate, therefore giving an approximate DFS Phase accuracy of (+20/-15%). These opportunities are planned to be developed to the same detail and accuracy as the original estimate in the next phase.

Table 14.7: Estimated capital costs - Phase One (€M).

	Lionheart Geo	Taro Geo	Lionheart LEP	Taro LEP	CLP	Total
Drilling	151	97	-	-	-	248
Well Sites	61	28	-	-	-	89
ICPP	103	23	-	-	-	126
ORC	88	55	-	-	-	143
LEP & BoP	-	-	233	178	-	411
CLP	-	-	-	-	256	256
Owner's costs	13	6	8	4	8	38
Contingency	25	8	35	27	38	132
EPCM	-	-	19	14	20	53
Total Estimated Capex	440	217	294	223	322	1,496

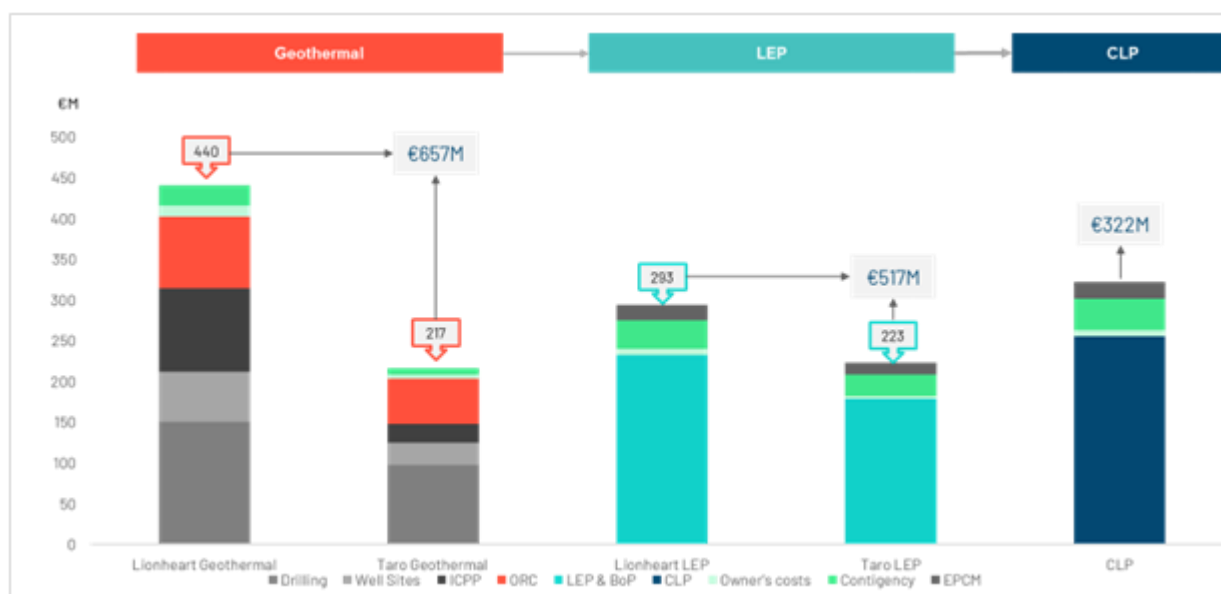


Figure 14.13: Key estimated capital expenditure - Phase One (€M). Contingency: some contingency is already included in other CAPEX components such as drilling, hence the lower contingency number reflected in the graph.³⁵

Projected Revenues

Based on the price assumptions discussed, estimated annual revenues are displayed below for Phase One.

Table 14.8: Option One – estimated annual revenue €/M/a, 20y average.

	SPV1			SPV2			Total
	Heat	Power	LiCl	LHM	HCl	NaOCl	
Revenues SPV1 (geothermal)	16.7	71.8	448.9				537.4
Revenues SPV2 (lithium)				605.7	9.4	0.8	615.9
Revenues Integrated Phase One*	16.7	71.8	448.9	605.7	9.4	0.8	704.4

*LiCl is excluded as it is an internal sale if SPV1 and SPV2 are within the same entity

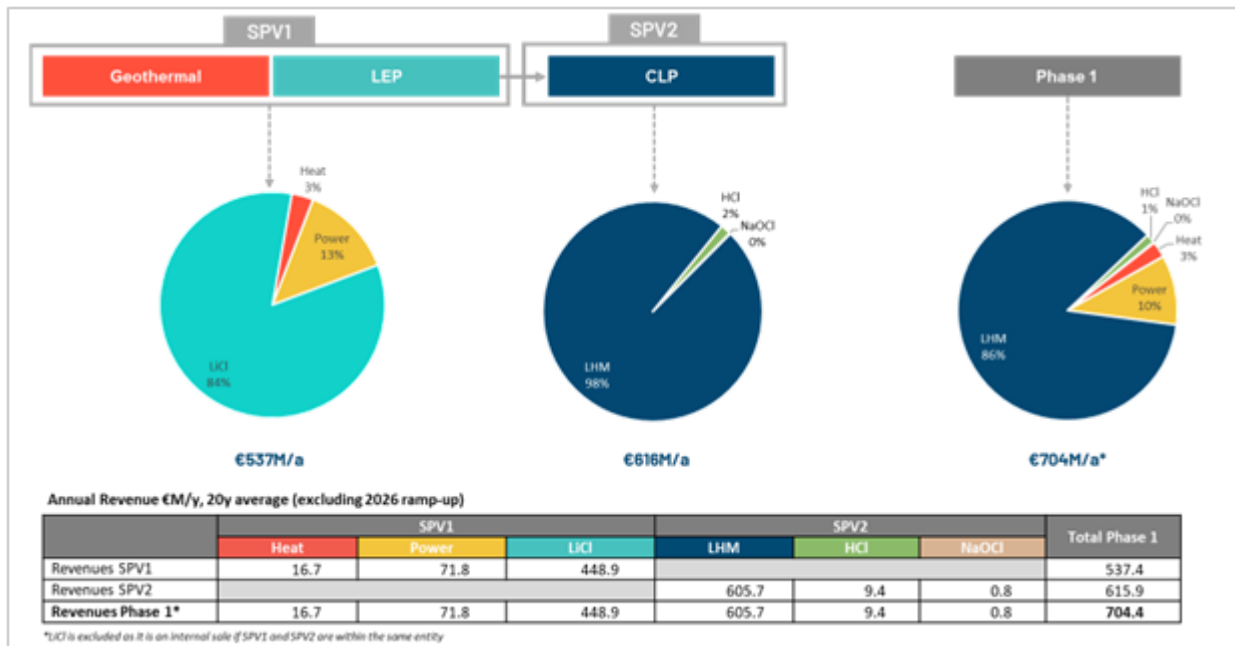


Figure 14.14: Forecast revenue breakdown.

Phase One forecast revenues are mostly dictated by LHM realised prices as 86% of all revenues are linked to those prices. From the 2030s onwards, LHM prices are estimated to continue to increase but revenues are mostly flat and then slightly decline. This is linked to lithium dilution in the brine and therefore a reduced LHM output over time.

Energy revenues show much more stability than revenues linked to lithium, at least for the first 20 years of operations. Indeed, in the first 20 years of production, 81% of the energy revenues are coming from selling power under a feed-in tariff. Revenues are estimated to start declining after 20 years as the feed-in tariff will expire and power selling price will be linked to the market. Heat prices are usually indexed to electricity prices.

Target Operating Margins

Option One estimated operating margins are summarised below, showing a 20-year average. SPV1 margins are around 86% compared to 21% for SPV2, however, estimated CAPEX for SPV1 represents for 78% of Phase One CAPEX so high margins are required. SPV2 costs include the cost of buying the feedstock, LiCl, from SPV1, which is indexed on the realised LHM selling price.

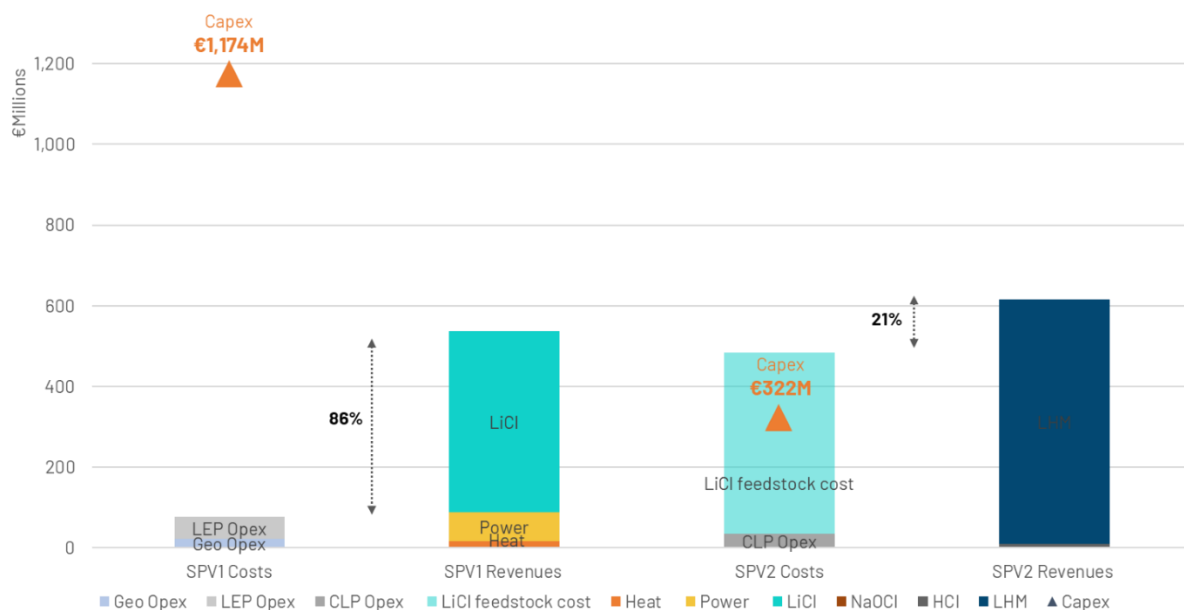


Figure 14.15: Option One – estimated operating margins – 20y average.

Option Two estimated operating margins are summarised below. SPV Geothermal margins are around 85% and SPV Lithium around 72%. CAPEX for both SPVs are also much closer than Option One.

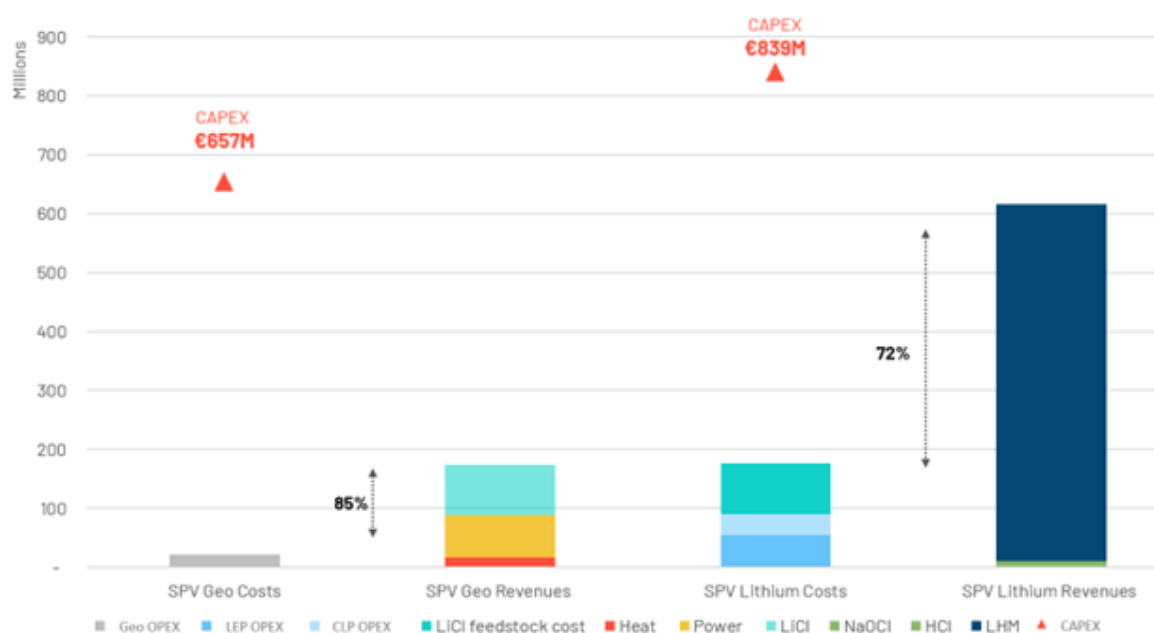


Figure 14.16: Option Two – estimated operating margins – 20y average.

Estimated Target Cash Flow

Estimated average EBITDA (Earnings Before Interest, Taxes, Depreciation, and Amortization) for Integrated Phase One and for the first 20 years of the Project is around €600M per year whilst cash flows are around €437M.

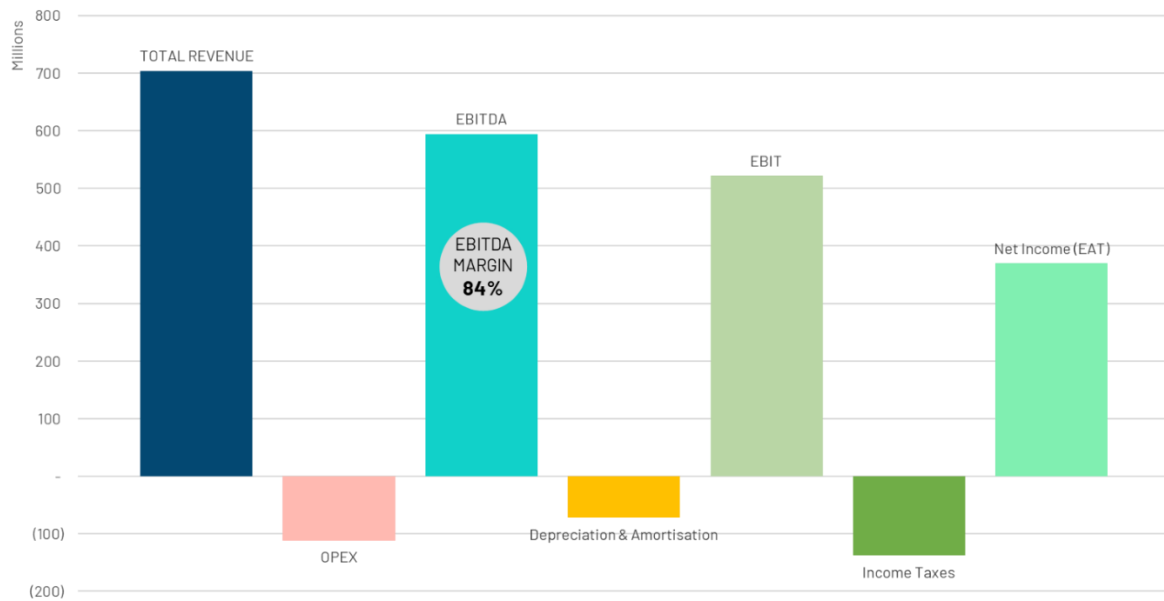


Figure 14.17: Phase One targeted financials – 20y average (€M/a).

Target Project Economics³⁶

Using the above assumptions, the Project is estimated to generate a net operating cashflow of €437M/a over the first 20 years of the life of the Project. The Phase One (integrated project) estimated payback is 3.5 years. Estimated pre-tax NPV is €3,917 M and pre-tax IRR is 34.4%. Expected post-tax NPV is €2,584M and post-tax IRR is 26.1%.

Table 14.9: Option One – estimated project economics.

	SPV1	SPV2	Phase One
Revenues €M/a	537	616	704
Net Operating Cash Flow €M/a	339	104	437
NPV pre-tax m€	3,022	895	3,917
NPV post-tax m€	1,998	572	2,584
IRR before Tax	34.1%	35.5%	34.4%
IRR after Tax	26%	26.1%	26.1%
Payback in years	3.5	3.3	3.5 (integrated)
Total CAPEX m€	1,174	322	1,496
Geothermal	657		657
LEP	517		517
CLP		322	322
Avg OPEX €/t LiOH	2,656	1,704	4,359

Table 14.10: Option Two – estimated project economics.

	SPV Geothermal	SPV Lithium	Phase One
Revenues €M/a	174	616	704
Net Operating Cash Flow €M/a	111	328	437
NPV pre-tax m€	724	3,192	3,917

NPV post-tax m€	435	2,149	2,584
IRR before Tax	11.4%	45.9%	34.4%
IRR after Tax	7.3%	34.0%	26.1%
Payback in years	6.5	2.5	3.5 (integrated)
Total CAPEX m€	657	839	1,496
Geothermal	657		657
LEP		517	517
CLP		322	322
Avg OPEX €/t LiOH		4,359	4,359

Sensitivity Analysis

A sensitivity analysis of the Vulcan Project has been carried out considering the LHM price, power price, FX, OPEX and CAPEX costs, flow rate and lithium concentration, at 10% increments (between +/-40%). Using these sensitivities, the analysis indicates that the Project is most sensitive to the items directly impacting revenue (flow rate, lithium price and FX). Regarding the FX, LHM offtakes are linked to a PRA with a US\$ index or a fixed price in US\$. The flow rate fluctuation impacts both lithium extraction output and energy output. Lithium prices impact revenues but their fluctuations are limited by the pricing mechanisms in place with offtakers. As a low-cost operation, OPEX has a limited impact on financials. Power prices also have a limited impact as the price fluctuations impact both cost and revenues in a similar manner. See Figure 14.18 below for Post-tax NPV sensitivity – Phase One.

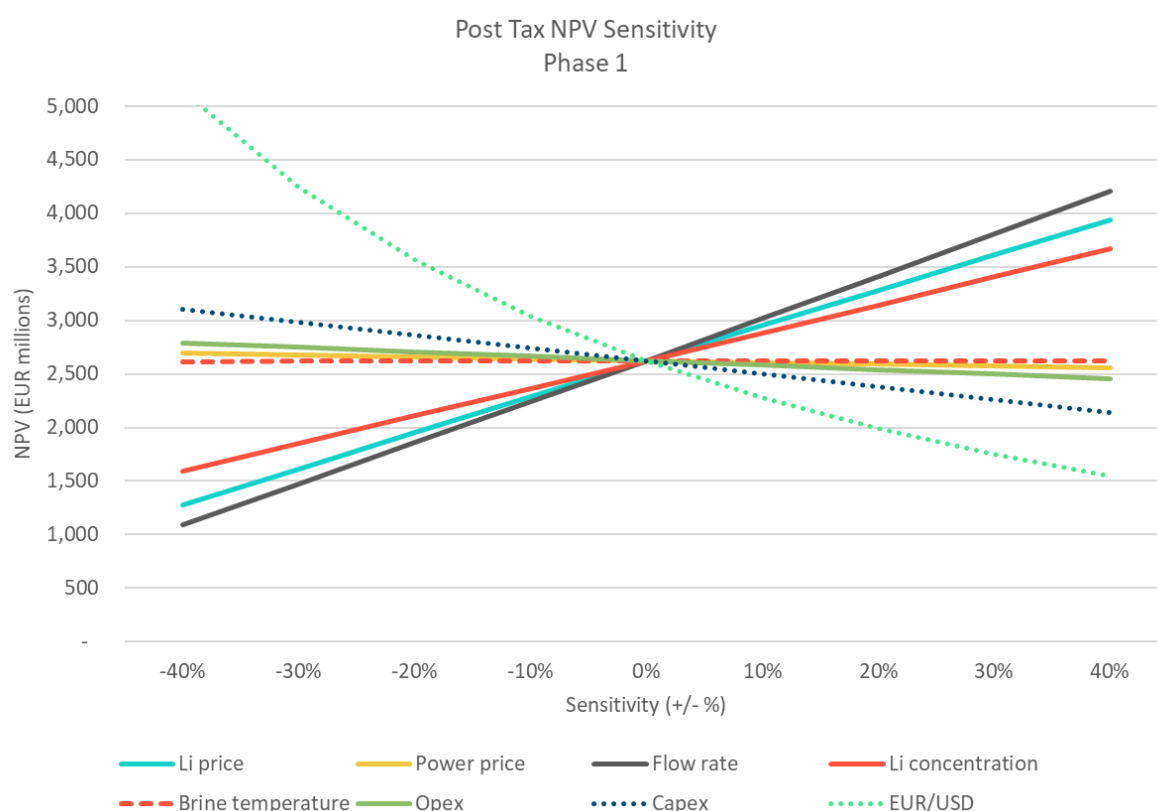


Figure 14.18: Post-tax NPV sensitivity – Phase One.

15. Risks and Opportunities

The DFS represents a large undertaking to support the Zero Carbon Lithium™ Project design basis for development of the lithium and geothermal resources held by Vulcan in the URVBF. The DFS focus is on the Phase One Projects at Lionheart and Taro, which include centralized LEP sites, and the CLP which will provide conversion to LHM for Phase One and other future phases. Herein is a summary of key risks and uncertainties that relate to the full Project and the larger Vulcan licence area referred to as the Upper Rhine Valley Brine Field and the estimation of mineral ore resources and reserves.

Geological:

- The use of seismic surveys to determine the location of the fault zones without sufficient well log data can lead to uncertainty associated with exploiting fault zones within deep geothermal and lithium brine reservoirs, which could result in lower-than-expected permeability and brine flow rates. This could be controlled with drilling side-track wells to increase production. It should also be noted that the average brine flow assumptions are approximately the same as the existing per well production at Vulcan's Insheim operation.
- Reservoir connectivity may be influenced by currently unidentified features, such as baffles and barriers, high permeability zones and the impact and geometries of fault/fracture zones which can impact brine flow rate estimates.
- The brine production from the existing Insheim and Landau geothermal wells is not solely from the Buntsandstein reservoir and is from wells that did not gather detailed reservoir data through core or log suites. There is a risk that the geologic interpretation for the Lionheart area might be different when data from new wells is gathered which can change the field development plan.

Technical/Operational:

- The re-injection flow rates into the host-rock matrix is expected to result in a "sweep" effect, but has uncertainty related to the positive impact expected. This could be controlled with drilling side-track wells to increase production or longer horizontal well sections to increase re-injection resulting in added capital.
- Drilling issues with downhole collision as multiple wells and sidetracks are drilled from the same pad. This is mitigated with measurement while drilling and specialized tools and control systems to manage the drilling.
- Scaling and corrosion are risks that can affect the operating equipment including wells, piping, and vessels. There is historical knowledge from the operating facilities and mitigation is planned utilizing inhibitor chemicals and operating plans that manage the risk.
- Transport activities for the Project could lead to accidents, which is mitigated with proper training and staffing for driver selection and having an emergency response plan prepared.

Economic:

- Risk of insufficient or poor-quality test work that enables the commercial build of the lithium extraction/processing plant. This is mitigated by two years' worth of pilot plant testing on the URVBF brine by Vulcan, which has produced the data required for the DFS.
- Failure of product to meet on-spec requirements can lead to loss in revenues. This is mitigated with communication with offtake holders to manage delivery schedules, and to identify buyers for off-spec product.
- Change in market conditions that impacts the price negatively or impacts market demand. This is mitigated by pricing mechanisms in Vulcan's offtake agreements.

Environmental:

- There is potential risk associated with induced seismicity caused by injection of brine, which is mitigated with injection control and monitoring systems and passive seismic monitoring.
- Risk of hazardous gas or fluid release to air or surface. This is being mitigated with HAZOP and LOPA studies and engineering design considerations, plus maintaining emergency response plans, having spill containment, and ensuring safe operating procedures are in place.

Political/Regulatory:

- Induced seismicity can be used by stakeholders as a reason to block support of the Vulcan Project but would likely be related to risks that are not part of the Project like hydraulic fracturing risks. This can be mitigated with clear communication and advocacy.
- Changes in regulations and permitting may impact Project schedule, design specifications, and cost. This can be mitigated through communication and advocacy with levels of government and regulatory authorities to be aware of upcoming changes.

Following the first review of the Capex, a Value Improvement program was initiated. Several ideas were implemented in the DFS and are listed in the Capex as “below the line” numbers as the savings were estimated on an Order of Magnitude basis. The engineering basis for the value improvement ideas listed in Table 15.1 have been validated but the cost savings are less accurate than the DFS capital cost estimate.

Table 15.1: List of Value Improvement Opportunities Developed for the DFS

VI No.	Title
009	Boiler Operating Voltage
010	CO ₂ Compressor Facility Operating Voltage
021	RO Vessels Replacement
026	CO ₂ Compressor Facility
033	Eliminate cooling of LiCl solution prior to trucking
036	Incorporate the VULSORB™ sorbent
041	Replacement of actuated valves with manual valves
043	Replacement of pressure transmitters with local gauges
046	Replacement of diesel genset with batteries
049	High-Pressure DLE
050	Single building on LEP sites
051	Operating philosophy and stand-by equipment strategy
052	Elimination of pre-investments for Phase Two (CLP)
053	Review package quotations and price adjustment
054	Confirm site specific height limitations
055	Maximize the use of open structure instead of buildings
057	Elimination of the LHM Warehouse
060	Elimination of the Waste RO system
061	Manual operation for sump pumps

High-Pressure Mode is an important Value Improvement as it eliminates several process steps from the LEPs in the pre and post treatment sections of the production facility. In this process geothermal brine is fed directly to the DLS process removing the separation of carbon dioxide and the pre and post treatment processes. By removing these steps, the only element removed from the brine is in fact lithium, with traces of elements. It avoids the use of lime and significant quantities of hydrochloric acid. The operation in High-Pressure Mode reduces both the capital cost and the operating cost. The detailed design for this improvement will be available in the next project bridging stage.

16. Conclusion

The Project is based on the production of geothermal brines from the URVBF which are enriched with lithium and includes geothermal heat and power, and production of LHM as the marketable battery grade product. This represents a fully integrated approach to geothermal energy and lithium production, where Vulcan has acquired and built a multi-disciplinary, multi-asset team to develop, build and operate the Project. The Phase One District areas include licences which are located in two central locations referred to as Lionheart and Taro. Lionheart includes two existing geothermal operations containing operating wells and plants, one of which (Insheim) Vulcan owns and operates as 100% interest holder, and the other where Vulcan has a series of agreements with the operators which enable access (Landau).

To support the DFS, Vulcan has previously prepared a Pre-Feasibility Study (PFS) in 2020/2021 which outlined a preliminary plan for development at Taro and Ortenau. Vulcan then acquired the Insheim geothermal plant and wells in 2022 which has allowed for detailed evaluation of the brine resource with the existing wells which produce from the target reservoir, and pilot plant testwork for lithium extraction. Vulcan has conducted further exploration work with 3D seismic acquisition at Insheim, reprocessing of existing 3D seismic in Taro, analysed daily brine samples from the operating wells, gathered data from 2 pilots testing the Direct Lithium Sorption (DLS) process, tested the production of LHM from the produced Lithium Chloride (LiCl) from the pilots, and prepared detailed engineering design for an optimized development plan. Vulcan has also rigorously followed regulatory and environmental requirements, engaged in community and other stakeholder communication, and found solutions to current challenges in Germany for heating supply by adding district heating to their Project plans.

Since 2019, through multiple sampling programmes, from offsite and onsite wells, as well as the acquisition of historical data, Vulcan has compiled an extensive database of URVBF brine geochemistry, with samples taken and analysed from multiple well locations across the URVBF, and, at certain locations, repeatedly taken and analysed over time from the same location. These samples have been analysed in-house using Vulcan's own laboratory equipment, and verified using external, independent laboratories. The result is a database which shows relatively homogenous lithium concentrations within the URVBF brine at the target depth, with good reproducibility and with little if any variation over time. A slight decrease in grade to the north of the URVBF was noted, outside of which a fairly consistent average of 181 mg/l Li was observed.

It is the CP's opinion that Vulcan's geochemical brine programmes verified the historical geochemical brine analytical results in its database, and that the sampling procedures and analytical procedures

produced a geochemical dataset that is reliable and sufficient for use in the mineral resource estimation presented in this IER. Furthermore, the lithium content of the URVBF brine was validated, independently, by the Competent Person during a November 2022 site inspection and sampling program.

Vulcan has acquired multiple two-dimensional (2D) and three-dimensional (3D) seismic datasets since 2019 which, alongside public datasets, has been incorporated into an advanced 3D geological model including the spatial location and orientation of the Permo-Triassic strata, basement surface, and the orientation and offset of the fault/fracture zones. Outcrop, core and well data have also been integrated where available, into a fully integrated reservoir model in the core Phase One district. Production simulations in the Phase One district have then guided the development of Measured and Indicated Resources.

It is the opinion of the CPs that the exploration data, and other data described in this report, have been sufficiently validated to the best of the authors' ability. The authors assert that the data were utilized by the appropriate personnel in a fashion that extracts a reasonable 3D geological model of the Permo-Triassic and uppermost basement fault zone aquifers underlying the URVBF. To this end, the CPs have found no significant issues or inconsistencies that would cause one to question the validity of Vulcan's exploration programme, and subsequent geological and analytical results.

In April 2021, Vulcan initiated a pilot plant testing phase at the Insheim geothermal power plant. This has enabled Vulcan to utilize representative URVBF Permo-Triassic/basement brine in experiments designed to test commercially available, adsorption-type lithium extraction. As a result, Vulcan has developed a lithium extraction and chemical process, based on commercially available technology and equipment, either from the lithium industry or from commercially available analogues in other industries such as chlor-alkali. At the time of writing, the pilot plants (designated PP1 and PP1-A), had cumulatively generated thousands of hours of successful operation over 23 months since April 2021. The mineral processing and metallurgical testing conducted by Vulcan has enabled the optimisation of sorbent design and process engineering basis that is being used to design the Lithium Extraction Plants (LEP) and Central Lithium Plant (CLP) and integrated systems, as defined in this DFS.

It is the opinion of the CP that the brine used in the pilot test work is representative of the Phase One district brine as it was obtained within the Lionheart zone, and that the proposed absorption-type lithium extraction method represents an appropriate and valid technology to commercially extract the lithium from the brine.

This IER provides Vulcan's most current Mineral Ore Resource estimates for all licences in the URVBF. These Mineral Resource estimates are publicly disclosed per this IER and the Prospectus, in the form of a JORC Table 1 (Section 21). The Li-brine resource estimations and exploration targets presented in the DFS were completed in accordance with the JORC Code (2012 Edition). Generally, estimations are in line with and build on previous work, with increased confidence in the core areas where Vulcan has performed more detailed assessments and gathered more data. An exception to this is the Taro resource, where additional, more detailed work identified errors in the previous estimation, resulting in a downgrade.

Geologically, the resource area includes the fault damage zones and host rock matrix of the Permo-Triassic sediments which include the Rotliegend, Buntsandstein, and Muschelkalk groups. A detailed list of the Mineral Resource Estimate is provided in Section 7 of this report, with a summary of the total Mineral Resource estimated volumes shown in Table 16.1.

Table 16.1: Summary of Mineral Resource Estimated volumes for the URVBF

Classification	mg/L	Kt LCE
Measured	181	1,939
Indicated	178	8,151
Inferred	172	16,484

In the opinion of the CPs, the Vulcan Upper Rhine Valley Brine Field licences for lithium and renewable energy have reasonable prospects for future economic extraction based on aquifer geometry, delineation of fault zones using re-interpreted seismic data, brine volume, brine composition, hydrogeological characterization, porosity, fluid flow, and advancement of the Company's DLS technology. Data derived from the test work reported by Vulcan as well as independent sampling is adequate to support the disclosure of Mineral Resource estimates.

The Mineral Ore Reserves estimation is based on the field development plan for the Phase One District per the DFS report. The field development plan is the overall well plan which defines the production and injection forecasts, which are based on the dynamic flow modelling that was prepared by Vulcan. The drilling schedule, which is planned to commence in Q3 2023, is based on the forecasts and filling of the LEP capacity with estimated production starting end 2025. The Mineral Ore reserves are reported on a Project basis and comprise as such quantities that are accountable to several licences. The first zone for development for Phase One is Lionheart, which comprises mineral ore reserves from the Insheim, Landau Süd, and Rift licences. The second zone for development is Taro, which comprises ore reserves from the Taro and Kerner licences. See summary of Mineral Reserves estimated volumes in Table 16.2.

Table 16.2: Summary of Mineral Reserve Estimated volumes for Phase One in LCE as attributed at the Reference point of wellhead/LEP inlet

Project Area	Reserve Classification	Mineral Reserve Volume (LCE in t)	Lithium Grade (ppm)
Lionheart	Proved	196,353	181
Lionheart	Probable	153,546	181
Taro	Probable	189,070	181

It is the opinion of the CP that methods utilized to estimate the Mineral Ore Reserves followed accepted industry practices and utilized a thorough approach. The lithium grade has been well established with proven historical data that confirms the use of 181 mg/l as the lithium grade for the mineral ore reserves estimation. The consideration of uncertainty to estimate Proved and Probable reserves was assigned based on cumulative expected production at 15 years and at 30 years respectively. This is a reasonable representation of what is economically recoverable with applied modifying factors to these time periods.

The Mineral Ore Reserves estimated volumes for Lionheart is newly reported, while the Probable volume for Taro is a downgrade from the last reported estimate of 420 kt LCE in 2021. The reason for the reduction is due to smaller development area, inclusion of dilution in the production forecast, and an economic limit of 100 mg/l Li applied, which were excluded in 2021. The CP supports the revision to include dilution and the estimation of a lower Probable reserve for Taro.

In the PFS, Mineral Ore Reserves were attributed to Ortenau, as 700 kt LCE. This figure was for an early stage, PFS-level study only, and will be reviewed, revised and updated as part of ongoing feasibility studies.

17.Recommendations

It is recommended that Vulcan continue to de-risk and develop its Zero Carbon Lithium™ Project in the Upper Rhine Valley Brine Field using the following systematic, stepwise approach:

1. Drill development wells across Vulcan's core "Phase One" area contemplated within its DFS, focused on the producing, core of the field in the Insheim-Landau region and neighbouring region near Haßloch. The focus should be on sustainably increasing brine production and re-injection flow rates across the field to feed commercial production, using recently acquired state-of-the-art seismic data and associated modelling and simulation. Continually refine model as more data is gathered during the development drilling and ramp-up of brine flow, aiming for continuous improvement during development.

2. Construction, commissioning, and implementation of a pre-commercial demonstration plant, to train a lithium operations team in a pre-commercial environment. Continuation of the current pilot plant operation which has been operating since April 2021, to further optimise operating conditions prior to commercial production start.
3. Execution of further 3D seismic surveys in step out, Phase Two areas, along with processing, interpretation and analysis of these surveys to run field simulations and further optimise field development plans and associated further feasibility studies to develop these areas to the next stage. Drilling of Phase Two, step out development wells in these areas.
4. Further acquisition of 2D and 3D seismic data, and where applicable drilling data, across outer-lying regions and newly acquired areas in the URVBF, resulting in enhanced understand of the field, and the ability to develop further phases.
5. Drilling of test well into northern target area near Frankfurt, designated “Ried”, to test if the brine reservoir is lithium-bearing beyond the extent of the Buntsandstein to the north.
6. Execution of a bridging engineering phase for Phase One, after the DFS is completed for Phase One, towards project execution, construction and commissioning. This engineering phase will include value improvement initiatives to optimize the field development plan and project economics.

18. Cautionary Statement

Some of the statements appearing in this IER may be in the nature of forward-looking statements. You should be aware that such statements are only predictions and are subject to inherent risks and uncertainties. Those risks and uncertainties include factors and risks specific to the industries in which Vulcan operates and proposes to operate as well as general economic conditions, prevailing exchange rates and interest rates and conditions in the financial markets, among other things. Actual events or results may differ materially from the events or results expressed or implied in any forward-looking statement. No forward-looking statement is a guarantee or representation as to future performance or any other future matters, which will be influenced by a number of factors and subject to various uncertainties and contingencies, many of which will be outside Vulcan’s control.

Vulcan does not undertake any obligation to update publicly or release any revisions to these forward-looking statements to reflect events or circumstances after today's date or to reflect the occurrence of unanticipated events. No representation or warranty, express or implied, is made as to the fairness, accuracy, completeness or correctness of the information, opinions or conclusions contained in this IER. To the maximum extent permitted by law, none of Vulcan, nor any of Vulcan’s Directors, employees, advisors or agents, nor any other person, accepts any liability for any loss arising from the use of the information contained in this IER. You are cautioned not to place undue reliance on any forward-looking statement. The forward-looking statements in this IER reflect views held only as at the date of this IER. This IER is not an offer, invitation or recommendation to subscribe for, or purchase securities by Vulcan. Nor does this IER constitute investment or financial product advice (nor tax, accounting or legal advice) and is not intended to be used for the basis of making an investment decision. Investors should obtain their own advice before making any investment decision.

Information included in this IER constitutes forward-looking statements. Often, but not always, forward looking statements can generally be identified by the use of forward-looking words such as “may”, “will”, “expect”, “intend”, “plan”, “estimate”, “target”, “anticipate”, “continue”, and “guidance”, or other similar words and may include, without limitation, statements regarding plans, strategies and objectives of management, anticipated production or construction commencement dates and expected costs or production outputs.

Forward looking statements inherently involve known and unknown risks, uncertainties and other factors that may cause the Company’s actual results, performance, and achievements to differ materially from any future results, performance, or achievements. Relevant factors may include, but are not limited to, changes in commodity and renewable energy prices, foreign exchange fluctuations and general economic conditions, increased costs and demand for production inputs, the speculative nature of exploration and project development, including the risks of obtaining necessary licenses and permits and diminishing quantities or grades of reserves, political and social risks, changes to the regulatory framework within which the Company operates or may in the future operate, environmental conditions including extreme weather conditions, recruitment and retention of personnel, industrial relations issues and litigation.

Forward looking statements are based on the Company and its management’s good faith assumptions relating to the financial, market, regulatory and other relevant environments that will exist and affect the Company’s business and operations in the future. The Company does not give any assurance that the assumptions on which forward looking statements are based will prove to be correct, or that the Company’s business or operations will not be affected in any material manner by these or other factors not foreseen or foreseeable by the Company or management or beyond the Company’s control.

Although the Company attempts and has attempted to identify factors that would cause actual actions, events, or results to differ materially from those disclosed in forward looking statements, there may be other factors that could cause actual results, performance, achievements, or events not to be as anticipated, estimated or intended, and many events are beyond the reasonable control of the Company. Accordingly, readers are cautioned not to place undue reliance on forward looking statements (particularly in light of the current economic climate and significant volatility, uncertainty and disruption caused by the COVID 19 pandemic and the Russian invasion of Ukraine). Forward looking statements in these materials speak only at the date of issue. Subject to any continuing obligations under applicable law or any relevant stock exchange listing rules, in providing this information the Company does not undertake any obligation to publicly update or revise any of the forward-looking statements or to advise of any change in events, conditions or circumstances on which any such statement is based.

Statements regarding plans with respect to the Company’s mineral properties may contain forward-looking statements in relation to future matters that can only be made where the Company has a reasonable basis for making those statements. This IER has been prepared in compliance with the JORC Code 2012 Edition, the current ASX Listing Rules and the ESMA Update of the CESR Recommendations (20 March 2013).

The Company believes that it has a reasonable basis for making the forward-looking statements in this IER, including with respect to any mining of mineralised material, modifying factors and production targets and financial forecasts. The following information is specifically provided in support of this belief:

- The DFS was completed by Vulcan's in-house teams with support and oversight from independent specialist firms.
- Production targets and financial forecasts disclosed in this IER are based exclusively on Measured and Indicated Resource categories as defined under the JORC Code 2012.
- All material assumptions on which the forecast financial information is based have been included in the IER.

19. Competent Person Statement and Consent

Information in this IER that relates to Exploration Results and Mineral Resources is based on information that was reviewed, overseen, and compiled by Mark King, PhD, FGC, P.Geo., of Groundwater Insight Inc. and deemed to be a 'Competent Person'. Dr. King is a Professional Geoscientist with certification in the Province of Nova Scotia, Canada, a 'Recognised Professional Organisation' included in a list that is posted on the ASX website from time to time. Dr. King has sufficient experience relevant to the style of mineralization and type of deposit under consideration and to the activity which he is undertaking to qualify as Competent Person as defined in the 2012 Edition of the Australian Code for the Reporting of Exploration Results, Mineral Resources, and Ore Reserves (JORC Code). Dr. King consents to the disclosure of the technical information as it relates to the mineral resource information in this IER in the form and context in which it appears, and consents to and authorises the inclusion of all or part of this information, and all or part of this IER, in the Prospectus.

Information in this IER that relates to Production Target and Mineral Ore Reserves is based on information that was reviewed, overseen, and compiled by Ms. Kim Mohler, P.Eng., who is a full-time employee of GLJ Ltd. and deemed to be a 'Competent Person'. Ms. Mohler is a member as a Professional Engineer of the Association of Professional Engineers and Geoscientists of Alberta (APEGA), a 'Recognised Professional Organisation' included in a list that is posted on the ASX website from time to time. Ms. Mohler has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity that she is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australian Code for the Reporting of Exploration Results, Mineral Resources, and Ore Reserves (JORC Code). Ms. Mohler consents to the disclosure of the technical information as it relates to the Production Target and Mineral Ore Reserve information in this IER in the form and context in which it appears, and consents to and authorises the inclusion of all or part of this information, and all or part of this IER, in the Prospectus.



April 21, 2023

The Directors
Vulcan Energy Resources Limited
Level 11, Brookfield Place
125 St Georges Terrace
Perth, WA 6000, Australia

Dear Sir/Madam

Re: Consent of Competent Person – Independent Expert's Report

I, Mark King, prepared and take responsibility of sections 4-7 and contributed to sections 1, 2, 15-21 and hereby consent to (i) the inclusion in the Prospectus and the International Offering Circular (each as defined below) and (ii) the public filing of the technical report entitled "Independent Expert Report for Vulcan Energy Resources Zero Carbon Lithium™ Project" effectively dated April 21, 2023 (the "**Report**").

I hereby consent to the use and the inclusion of the Report (or any information based on or derived from the Report, any extracts therefrom, or summaries thereof) in the prospectus prepared by the Vulcan Energy Resources Limited (the "**Company**") for purposes of the Listing (the "**Prospectus**") and the international offering circular prepared by the Company for purposes of the private placement of shares of the Company (the "**International Offering Circular**"), each to be dated on or around May 2, 2023, the filing of the Report (or any information based on or derived from the Report, any extracts therefrom, or summaries thereof), together with the Prospectus, with the German Federal Financial Supervisory Authority (BaFin), the publication of the Report (or any information based on or derived from the Report, any extracts therefrom, or summaries thereof), together with the Prospectus, in connection with the listing of new shares of the Company on the Frankfurt Stock Exchange and the distribution of the International Offering Circular in connection with the private placement.

I confirm that I have read the Prospectus and the International Offering Circular and that the Prospectus and the International Offering Circular each fairly and accurately represent the information in the Report.

Yours sincerely,

Signature of Competent Person

Mark King, P.Geo.

Print name of Competent Person

Groundwater Insight, Inc.
3 Melvin Road
Halifax, Nova Scotia, CANADA B3P 2H5

ph. 902.223.6743
email. king@gwinsight.com
web. www.gwinsight.com



April 21, 2023

Project: 1233708

The Directors
Vulcan Energy Resources Limited
Level 11, Brookfield Place
125 St Georges Terrace
Perth, WA 6000, Australia

Dear Sir/Madam:

**Re: Consent of Competent Person
Independent Expert's Report**

I, Kim Mohler, prepared and take responsibility of sections 3, 8-17 and contributed to sections 1, 2, 18-21 and hereby consent to (i) the inclusion in the Prospectus and the International Offering Circular (each as defined below) and (ii) the public filing of the technical report entitled "Independent Expert Report for Vulcan Energy Resources Zero Carbon Lithium™ Project" effectively dated April 21, 2023 (the "**Report**").

I hereby consent to the use and the inclusion of the Report (or any information based on or derived from the Report, any extracts therefrom, or summaries thereof) in the prospectus prepared by the Vulcan Energy Resources Limited (the "**Company**") for purposes of the Listing (the "**Prospectus**") and the international offering circular prepared by the Company for purposes of the private placement of shares of the Company (the "**International Offering Circular**"), each to be dated on or around May 2, 2023, the filing of the Report (or any information based on or derived from the Report, any extracts therefrom, or summaries thereof), together with the Prospectus, with the German Federal Financial Supervisory Authority (BaFin), the publication of the Report (or any information based on or derived from the Report, any extracts therefrom, or summaries thereof), together with the Prospectus, in connection with the listing of new shares of the Company on the Frankfurt Stock Exchange and the distribution of the International Offering Circular in connection with the private placement.

I confirm that I have read the Prospectus and the International Offering Circular and that the Prospectus and the International Offering Circular each fairly and accurately represent the information in the Report.

Yours sincerely,

GLJ LTD.

Kim Mohler, P.Eng.
Manager, Technology and Projects

20. Glossary and References

20.1. Terms of Reference

This IER is based on data from the DFS, which was compiled from numerous sources. The analysis of long-term data from existing geothermal plants in Landau and Insheim with production and injection of brine for geothermal power generation is included in this report. There are also previously filed technical reports which provide background to this report:

- Updated Indicated and Inferred Lithium-Brine Resource Estimations for Vulcan Energy Resources Ltd.'s Taro Licence, Upper Rhine Valley, Germany compiled by D. Roy Eccles M.Sc. P. Geol. of APEX Geoscience Ltd., Edmonton, AB Canada with effective date 11.11.2020
- Updated Indicated and Inferred Lithium-Brine Resource Estimations for Vulcan Energy Resources Ltd.'s Ortenau Licence, Upper Rhine Valley, Germany compiled by D. Roy Eccles M.Sc. P. Geol. of APEX Geoscience Ltd., Edmonton, AB Canada with effective date 10.12.2020
- Production Study License area Taro, Rheinland-Pfalz compiled by GeoThermal Engineering GmbH (GeoT), Karlsruhe Germany with effective date December 2020
- Production Study License area Ortenau, Baden-Württemberg compiled by GeoThermal Engineering GmbH (GeoT), Karlsruhe Germany with effective date December 2020
- Review of Upper Rhine Valley Pfs Production Study December 18, 2020 Licence Areas, Taro (Rheinland-Pfalz) and Ortenau (Baden-Württemberg), Germany prepared by GLJ Ltd., Calgary, AB Canada dated December 2020
- Lithium Extraction and Processing Technology Report for Vulcan PFS compiled by Jade Cove Partners, San Francisco, CA USA and completed in December 2020
- Pre-Feasibility Study and Project Development Plan - Description of tasks for the regions Hassloch ('Taro') and Ortenau compiled by gec-co Global Engineering & Consulting-Company GmbH, Augsburg Germany and completed on 18.12.2020.
- Market Studies & Contracts by Vulcan Energy Resources, Perth Australia and published on 15.01.2021
- Vulcan Project - PFS Financial Modelling compiled by Jason Froud of Optiro Pty Limited, West Perth, WA Australia and completed in December 2020
- Internal Scoping Study to Evaluate Potential Dual Geothermal Energy and Lithium Hydroxide Production with Net Zero Carbon Footprint prepared by APEX Geoscience Ltd, Hatch Ltd., Optiro Pty Ltd. Effective Date 30.01.2020
- Zero Carbon Lithium Pre-Feasibility Study Presentation prepared by Vulcan Energy Resources Ltd. and published on 15.01.2021
- Zero Carbon Lithium Feasibility Study (Phase One) results prepared by Vulcan Energy Resources Ltd. and published on 13.02.2023

This report provides information, findings and results based on the results from pilot plants, existing geological data and long-term brine analysis campaigns.

This report is considered current as of 7 March 2023.

20.2. Abbreviations and Glossary of Terms:

Abbreviation. / Term	Definition
2D seismic	Two dimensional seismic geophysical data
3D seismic	Three dimensional seismic geophysical data
a	annual
A-DIFs	axial drilling-induced fractures
AACE	American Association of Cost Engineers
ABergV	Allgemeine Bundesbergbauverordnung (General Federal Mining Ordinance)
aBG	Allgemeine Bauartgenehmigung (General Type Approval)
ABP	Abschlussbetriebsplan (closing operation plan)
abZ	Allgemeine bauaufsichtliche Zulassung (General Technical Approval)
AfE	Authorization for Expenditure
AGFW	Energieeffizienzverband für Wärme, Kälte und KWK (Energy Efficiency Association for Heating, Refrigeration and CHP)
AOI	Area of interest
ArbStättV	Arbeitsstättenverordnung (Occupational Health and Safety Act)
ASR	Technische Regeln für Arbeitsstätten (Technical Rules for Workplaces)
ASVG	Agrarstrukturverbesserungsgesetz (Agricultural Structure Improvement Act)
ASX	Australian Securities Exchange
Av K Hi Core	average permeability
Av PHIE	average effective porosity
avg. LC	average lithium concentration
AwSV	Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (Ordinance on Facilities for Handling Substances Hazardous to Water)
barg	bar gauge
BArtSchV	Bundesartenschutzverordnung (Federal Species Protection Regulation)
BauGB	German Baugesetzbuch (Building Code)
BauNVO	Baunutzungsverordnung (Building Use Ordinance)
BBerg	Germany Federal Mining Act (Bundesberggesetz)
BBergG	Bundesberggesetz (Federal Mining Act)
BBodSchG	Bundes-Bodenschutzgesetz (Federal Soil Protection Act)
BetrSichV	Verordnung über Sicherheit und Gesundheitsschutz (Ordinance on Safety and Health Protection)
BFD	Block Flow Diagram
BGB	Bürgerliches Gesetzbuch (Civil Code)
BImSchG	Bundesimmissionsschutzgesetz (Federal Immission Control Act)
BImSchV	Bundesimmissionsschutzverordnung (Federal Immission Control Directive)
BKompV	Bundeskompensationsverordnung (Federal Compensation Regulation)
BImSchG	German Federal Immission Control Act (Bundesimmissionsschutzgesetz)
BNatSchG	Bundesnaturschutzgesetz (Federal Nature Conservation Act)

BO	borehole breakout
BoP	Balance of Plant
Bos	borehole breakouts
BST	Buntsandstein formation
BV	Bed Volume
BVEG	Bundesverband Erdgas, Erdöl und Geoenergie (German Federal Association for Natural Gas, Petroleum and Geoenergy)
BW	Baden-Wuerttemberg
BWG	Geochemische Beratung GmbH
CALA	Canadian Association for Laboratory Accreditation Inc.
CAPEX	Capital Expenditures
CBL	Cement Bond Log
CIF	Cost Insurance and Freight
CJK	China, Japan, South Korea
Cl₂	Chlorine
CLP	Central Lithium Plant
CO₂	Carbon Dioxide
CORFO	Chilean Economic Development Agency
CP	Competent Person
CSEM	Controlled-Source Electro-Magnetics
d	Days
D&C	Design and Construction
DA	exterior diameter
DAfStB	German Committee for Reinforced Concrete (Deutscher Ausschuss für Stahlbeton)
DEM	Digital Elevation Model
DEW	Deutsche ErdWärme
DFS	Definitive Feasibility Study
DH	District Heating
DIF	Drilling-induced fractures
DIFs	drilling-induced tensile fractures
DLE	Direct Lithium Extraction
DLS	Direct Lithium Sorption
DLS	dogleg severity
DN	nominal inner diameter
DST	drill stem test
DVGW	Deutscher Verein des Gas- und Wasserfaches (German Association of the Gas and Water Industry)
DWA	Deutsche Vereinigung für Wasserwirtschaft, Abwasser und Abfall (German Association for Water, Wastewater, and Waste)
e.g.	exempli gratia

EBA	European Battery Alliance
ECD	equivalent circulating densities
ECRIS	European Cenozoic Rift System
EEG	Erneuerbare-Energien-Gesetz (German Renewable Energies Act)
EEWärmeG	Erneuerbare-Energien-Wärmegesetz (German Renewable Energies Heat Act)
EGS	Enhanced Geothermal System
EIA	Environmental Impact Assessment
EM	Electromagnetic
EnBW	Energie Baden-Württemberg
EnEV	Energieeinsparverordnung (Energy Saving Ordinance)
EPC	Engineering, Procurement and Construction
EPCM	Engineering, Procurement and Construction Management
ERT	Electric Resistivity Tomography
ES	Électricité de Strasbourg
ESG	Environment, Social and Governance
ESP	Electrical Submersible Pumps
ESS	Energy Storage Systems
ETA	European Technical Assessment
EU	European Union
EU/USA	Europe and USA
EUR	Euro
EUR/t	Euro per tonne
EV	Electric Vehicle
F	finest (shale)
FBS	Facility Breakdown Structure
FDZ	Fault Damage Zone
FFH	Fauna-Flora-Habitat-Richtlinie (European Fauna-Flora-Habitat Directive)
FIT	Formation integrity test
FLA	Flaggenturm
FldAbgV RP	Landesverordnung über Feldes- und Förderabgabe (State Ordinance on Field and Production levies)
FM	Focal mechanism
FMI	Formation Micro-Imager
FMI	image logs
FOB	Free-on-board
FUC	Fuchsmantel
FV	funnel viscosity
FX	Exchange Rate
FX	Foreign exchange rate
g/L	Grams per litre

GCP	Grid Connection Point
GDRM	Gas pressure regulating and metering station (Gas-Druckregel- und Messanlage)
GEB	Geo Exploration Technologies GmbH
GEG	Gebäudeenergiegesetz (Building Energy Act)
GEO	Geothermal Processes
GHG	greenhouse gas
GHS	Globally Harmonised System of Classification and Labelling of Chemicals
GII	Groundwater Insight Inc.
GLEP	Geothermal Lithium Extraction Process
GR	Gamma Ray
GrdstVG	Grundstückverkehrsgesetz (Real Estate Transactions Act)
GRP	Glass-Reinforced Plastics
GRV	Gross Rock Volume
GT	geothermal wells
GWh	Gigawatt-hour
GWP	Global Warming Potential
H	hour
Ha	Hectare
HAZOP	Hazard and Operability
HBP	Hauptbetriebsplan (Main Operating Plan)
HCl	Hydrochloric Acid
HDR	Hot Dry Rock
HLNUG	Hessisches Landesamt für Naturschutz, Umwelt und Geologie (Hessian State Office for Nature Protection, Ecology and Geology)
HNO₃	Nitric Acid
HPRO	high pressure reverse osmosis
HRM	Host Rock Matrix
HSE	Health, Safety, Environmental
HT	high-temperature
HVAC	Heating, Ventilation and Air Conditioning
i.e.	id est
IC	Ion Chromatography
IC&E	Instrumentation, Controls and Electrical
ICE	internal combustion engine vehicle
ICP-OES	Inductively Couple Plasma-Optical Emission Spectroscopy
ICPP	Interconnecting Pipeline & Power
IER	Independent Expert Report
IfBT	Institut für Fassaden- und Befestigungstechnik (Institute for Facade and Fastening Technology)
IndBauRL	Industriebaurichtlinie (Industrial Building Directive)

IRR	Internal Rate of Return
IWC	Industrial Water Cycle
IX	Ion Exchange
JORC	Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy
JORC Code	Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves
KER	Kerner
KIT	Karlsruhe Institute of Technology
KPI	Key Performance Indicators
KSpG	Kohlendioxid-Speicherungsgesetz (Carbon Dioxide Storage Act)
LBauO	Landesbauordnung (Building and Zoning Code)
LBP	Landschaftspflegerischer Begleitplan (landscape management plan)
LC	Lithium Concentration
LCE	Lithium Carbonate Equivalent
LEP	Lithium Extraction Plant
LGB	Landesamt für Geologie und Bergbau (State Office for Geology and Mining)
LHM	Lithium Hydroxide Monohydrate
Li	Lithium
Li₂CO₃	Lithium Carbonate
LIB	Lithium-ion battery
LiCl	Lithium Chloride
LIIP	lithium-initially-in-place
LIO	Lionheart
LOPA	Layers of Protection Analysis
LOT	leak-off testing
LSP	Line Shaft Pump
LT	low-temperature
LTranspG	Landestransparenzgesetz (Rhineland Palatinate Transparency Act)
LUD	Ludwig
LWD	logging while drilling
LWEntG	Wasserentnahmeentgeltgesetz (Water Withdrawal Charges Act)
M	measured depth
M&E	Mass and Energy
MAN	Mannheim
MB	Mainz Basin
MBO	Musterbauverordnung (Standard Building Code)
MCC	Motor Control Center
mD	milliDarcy
MDT	Modular Formation Dynamics Tester
MGCH	Mid German Crystalline High

MoU	Memorandum of Understanding
MPD	Managed Pressure Drilling
MSCT	Mechanical Sidewall Coring Tool
MT	Magnetotelluric
MVMD	Medium-Voltage Main Distribution
MW	mud weight
MWD	measurement while drilling
NaCl	Sodium Chloride
NaOCl	Sodium Hypochlorite
NORM	Naturally Occurring Radioactive Material
NPZ	Northern Phyllite Zone
NTG	Net Thickness to Gross Thickness Ratio
NTG	Net-to-Gross Ratio
NURG	northern Upper Rhine Graben
OBM	Oil based mud
OH Testing	Open Hole Testing
OPEX	Operational Expenditures
ORC	Organic Rankine Cycle
ORT	Ortenau
P	paleosol.
P&ID	Piping & Instrumentation Diagram
PEP	Project Execution Plan
PFD	Process Flow Diagram
PFS	Pre-Feasibility Study
Phie	effective porosity
PI	production index
PLT	production logging Tool
PP1	Pilot Plant 1
PP2	Vulcan lithium extraction Demonstration Plant
PPV	peak particle velocity
PRA	price reporting agency
PRA	Price Reporting Agency
PSTM	pre-stack time migrations
PT brine	pre-treated brine
PV	plastic viscosity
QA	quality assured
QA-QC	quality assurance – quality control
QC	quality controlled
QRA	Quantitative Risk Analysis
R&D	Research & Development

RBP	Rahmenbetriebsplan (General Operating Plan)
RHZ	Rhenohercynian Zone
RLP	Rhineland-Palatinate
RO	Reverse Osmosis
ROG	Raumordnungsgesetz (Regional Planning Act)
ROP	rate of penetration
RPM	revolutions per minute
RStO	(Richtlinien für die Standardisierung des Oberbaus von Verkehrsflächen (guideline for the standardisation of the superstructure of traffic areas)
S	sandstone
saP	spezielle artenschutzrechtliche Prüfung (species conservation evaluation)
SBP	Sonderbetriebsplan (Special Operating Plan)
SBT	Segmented Bond Tool
SCC	Standards Council of Canada
SGD	Struktur- und Genehmigungsdirektion Süd (Structural and Approval Directorate South)
SH	Sprendlinger Horst
SHF	South Hunsrück Fault
SLD	Single Line Diagram
SNB	Saar-Nahe Basin
SOP	Start of Production
SoW	Scope of Work
SPV	Special Purpose Vehicle
SRA	Schedule Risk Analysis
StrISchV	Strahlenschutzverordnung (Radiation Protection Ordinance)
StVZO	Straßenverkehrs-Zulassungsordnung (Road Traffic Licensing Regulations)
STZ	Saxothuringian Zone
SWC	Side Wall Coring
TA	Technische Anleitung (Technical Instruction)
TAR	Taro
TBA	To be announced
TBC	To be confirmed
TD	Total Depth
TFRL	Technische Regel für Rohrfernleitungsanlagen (Technical Rule for Pipeline Facilities)
THE	Therese
TIC	Total Installed Cost
tpa	tonnes per annum
TRbF	Technische Regeln für brennbare Flüssigkeiten (Technical Rules for Flammable Liquids)
TRBS	Technische Regeln für Betriebssicherheit (Technical Rules for Operational Safety)

TRGS	Technische Regeln für Gefahrenstoffe (Technical Rules for Hazardous Substances)
TÜV	Technischer Überwachungsverein (Technical Inspection Agency)
TVD	true vertical depth
TWT	Two-Way time
UBB	Umweltbaubegleitung (Environmental Construction Supervision)
UBD	Underbalanced drilling
UBI	Ultrasonic Borehole Imager
Uni HD	Heidelberg University
UPD	Underbalanced Pressure Drilling
URG	Upper Rhine Graben
URV	Upper Rhine Valley
URVBF	Upper Rhine Valley Brine Field
US\$	US Dollar
USD	US Dollar
USIT	Ultra Sonic Imager Tool
UVP	Umweltverträglichkeitsprüfung (environmental impact assessment)
UVP-V	Umweltverträglichkeitsvorprüfung (preliminary environmental impact assessment)
UVPg	Gesetz über die Umweltverträglichkeitsprüfung (Environmental Impact Assessment Act)
UVV	Unfallverhütungsvorschriften (Accident Prevention Regulations)
V2A	rustproof steel
VbF	Verordnung über brennbare Flüssigkeiten (Ordinance on Flammable Liquids)
Vclay	Volume of clay
VDE	Verband der Elektrotechnik Elektronik Informationstechnik (German Electrical Engineering Association)
VDI	Verband Deutscher Ingenieure (Association of German Engineers)
VDL	Velocity Density Log
VEE	Vulcan Energy Engineering
VER	Vulcan Energy Resources
VES	Vulcan Energy Subsurface Solutions
VGB	Technische Vereinigung der Großkraftwerksbetreiber (Technical Association of Large Power Plant Operators)
VGL	VER GEO LIO GmbH
VKTA	Strahlenschutz, Analytik & Entsorgung Rossendorf e. V.
VOB	Vergabe- und Vertragsordnung für Bauleistungen (Regulations on the Award of Contracts and Contracts for Construction Work)
VSP	Vertical Seismic Profile
VULSORB™	Vulcan's internally produced sorbent
VwVfG	Verwaltungsverfahrensgesetz (Administrative Procedure Act)
W	hanging wall

WACC	Weighted average cost of capital
WBM	water-based mud
WBS	Work Breakdown Structure
WHG	Wasserhaushaltsgesetz (Water Management Law)
WOB	weight on bit
XLOT	extended leak of test
YP	yield point

Table 20.1: Abbreviations

Abbreviation	Definition
%	Percent
%	Percent
°C	Degree Celsius
\$/kg	Dollar per Kilogram
€	Euros currency
€/a	Euros per annum
€/kg	Euros per Kilogram
€/t	Euros per Ton
€M	Million Euros
€M/a	Million per Euros per annum
€M/y	Million per Euros per annum
Am ³ /h	Actual cubic meters per hour
barg	bar gauge
cm	Centimetre
dB	Decibel
dBA	Decibels A
g	gram
gal	gallon
GW	Gigawatt
GWh	Gigawatt hours
h	hours
ha	Hectare
K	degrees Kelvin
kg	kilogram
kg/m ³	kilogram per cubic metre
kJ	kilojoule
km	Kilometre
km ²	Square kilometres
km ³	cubic kilometre
kPa	Kilopascals

kt	Kilo ton
kt/a	Kilo tonnes per annum
kV	kilovolt
kW	Kilowatts
kWh	Kilowatt hour
L or l	Litre
l/s	Litres per second
m	Metre
m²	square metre
m³	cubic metre
m³/a	Cubic meters per annum
m³/h	Cubic meters per hour
mD	milliDarcy
mg	Milligram
mg/l	Milligram per litre
mm	millimetre
mS/cm	Milisiemens
MW	Megawatt
MW/a	Megawatt per annum
MWeI	Megawatt electric
MWh	Megawatt hours
MWh/a	Megawatt hours per annum
MWth	Megawatt thermic
Nm³/a	Normal cubic meters per annum
Nm³/h	Normal cubic meters per hour
NPV₈	Net Present Value using a discount rate of 8%
Ø	porosity
ppb	Parts per billion
s	Second
t	ton
t/a	Tonnes per annum
t/d	Tonnes per day
t/h	Tonnes per hour
µg/L	microgram per litre

Table 19.2: Abbreviations of SI Units.

21. JORC Table 1

JORC Code 2012 Table 1. Section 1: Sampling Techniques and Data.

Criteria	JORC Code Explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> Nature and quality of sampling (e.g., cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g., 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g., submarine nodules) may warrant 	<ul style="list-style-type: none"> Vulcan's Zero Carbon Lithium™ Project Upper Rhine Valley Brine Field (URVBF) as it pertains to Vulcan's resource estimations and associated brine sampling programs contains the following licences: Insheim, Landau, Ortenau II, Taro-Lisbeth, Rift, Mannheim, Ludwig, Therese, Kerner and Fuchsmantel-Flaggenturm. Vulcan has access to existing, operating deep geothermal wells with proven drilling information and lithium brine grades within the core of its licence areas, through 100% ownership of the Insheim project and through access agreements to the Landau project. Whilst it has yet to conduct drilling to enable access to brine in the licences outside of the core area in its licence field, it also has access to historical brine sampling data from other, off-property wells drilled previously in the URVBF. Within the URVBF, geothermal wells access hot brine from the Permo-Carboniferous Rotliegend Group, Lower Triassic Buntsandstein Group, and the Middle Triassic Muschelkalk Group, (collectively, Permo-Triassic) sandstone and carbonate aquifers/reservoirs overlying the granitic basement, as well as the basement itself. These geothermal wells, however, are limited in number within the URVBF, due to the nature of deep geothermal development. Consequently, Vulcan brine sampling programs were limited to collecting Permo-Triassic brine samples from available wells through the following programs: <ul style="list-style-type: none"> In 2021-22, extensive brine sampling at the Landau and Insheim geothermal wells and power plants for the lithium extraction pilot plant study was carried out. Sampling was also conducted at the newly drilled Vendenheim well proximal to Vulcan's Ortenau license. In 2019-20, sampling and analysis from four different geothermal wells located throughout the URVBF (Landau Gt La1, Insheim GT2, Brühl GT1, and Soultz GPK2 wells) was undertaken to verify historically reported lithium concentrations. Brine can be sampled at the well head, (the hot side of the production circuit) or after the heat exchanger (the cold side of the geothermal production circuit) prior to reinjection of the brine back down into the aquifer. Brine samples taken at the well head require a cooling mechanism (e.g., brine flows through a tube immersed in ice) and a mobile degasser unit to reduce CO₂. No special equipment is required on the cold side of the production circuit. Brine sampling programs were conducted in 2019 and 2021 by Vulcan employees who maintained a chain of custody protocol from sample site to delivery of the samples to the Karlsruhe Institute of Technology (KIT), University of Heidelberg (Uni HD), and IBZ-

	disclosure of detailed information.	<p>Salzchemie GmbH & Co. KG in Halsbruecke, Germany, for analytical work. Industry standard collection techniques were applied to collect new samples averaging 10 litres in volume. A split of each sample collected by Vulcan in 2019 was shipped by commercial courier to an APEX Mineral Resources CP and analysed at the accredited AGAT Laboratories facility in Edmonton, Alberta, Canada. In addition, four brine samples collected by GeoT were shipped by commercial courier to an APEX Mineral Resources CP in Edmonton, Alberta, Canada for analysis at the accredited and ISO 9001:2015 registered facilities of AGAT Laboratories and also at the accredited and ISO 9001:2015 registered Bureau Veritas Laboratory (formerly Maxxam Analytical).</p> <ul style="list-style-type: none"> • The current Mineral Resources CP collected independent brine samples at the Landau and Insheim resource area during the November 2022 site visit and submitted these for analysis at AGAT Laboratories, an accredited and ISO 9001:2015 registered commercial analytical services firm located in Calgary, Canada. Splits of these samples were also submitted blindly to the Vulcan laboratory located in Karlsruhe, Germany. Results of the 2021-2022 sampling program are consistent with previous Vulcan sampling programs and also with historical reporting associated with this field. • The current Mineral Resources CP reviewed the techniques of the regional brine sampling and the Insheim resource area brine sampling programs carried out by Vulcan, along with their related analytical procedures, and concluded that these were conducted using reasonable and industry-standard techniques in the field of brine sample collection and assaying and that there are no significant issues or inconsistencies that would cause the validity of the sampling or analytical techniques used by Vulcan to be questioned. • In combination, these data support the Mineral Resource CP's conclusion that the Permo-Triassic brine in the URVBF reservoir units is consistently enriched in lithium.
Drilling techniques	<ul style="list-style-type: none"> • Drill type (e.g., core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.). 	<ul style="list-style-type: none"> • A range of well data from various sources are available for this project covering different sections of the Mesozoic and Paleozoic rock formations of the URVBF. The majority of well data are from geothermal wells (GT) in the area that typically have been drilled into fault damage zones in the reservoir units and terminated in granitic basement. Insheim and Landau within Vulcan's core development area are producing geothermal wells, Vendenheim well was drilled into the granitic basement. Brühl GT1 was successfully drilled into the geothermal reservoir by a third party and was subsequently sealed, and Offenbach GT1 is an unsuccessful well that did not tap productive zones. Additional well data are available from publications addressing areas of the Landau and Römerberg oil fields or geothermal projects in Rittershoffen (e.g., well GRT-1) and Soultz-sous-Forêts (e.g., wells EPS-1, GPK-1, and GPK-2). Also contributing to the current Vulcan database are regional studies conducted in the URVBF in association with

		<p>the trans-national GeORG project, which combines data from individual wells, excerpts from various well databases, and outcrop data to establish overall ranges on reservoir properties, lithologies and facies.</p> <ul style="list-style-type: none"> • Since in mature deep geothermal fields like the URVBF, high capital cost wells are drilled straight for production/re-injection purposes, within the URVBF licence areas, Vulcan has not conducted any new lithium brine or geothermal drilling programs designed specifically to support exploration, evaluation, or resource estimation work programs. It is therefore currently reliant on its own existing, producing/re-injection geothermal wells, as well as published or otherwise available data from existing geothermal wells to characterise brine chemistry. The resource study was able to access and utilize detailed drilling and subsurface lithological information from historical wells within the Insheim, Rift, and Landau licences, and from additional wells in the vicinity of the Ortenau and Mannheim licence areas. • Geothermal and lithium production wells are usually designed with larger diameters than holes commonly drilled for production purposes in the oil industry. This is necessary to optimize fluid flow hydraulics for both brine production and injection wells. • Current geothermal well drilling in the URVBF generally consists of a 30" diameter (30") conductor casing drilled vertically to depth followed by several additional sections. These comprise a 20" surface casing in a 26" hole, a 13 3/8" intermediate liner in a 17 1/2" hole, and a 9 5/8" production liner in a 12 1/4" hole, above a 7" liner in an 8 1/2" hole. The final diameter hole is drilled into the targeted reservoir and to the well's total depth. Each section reduces in diameter as the drill hole deepens and their designed intervals are dependent on factors such as lithology and stability. • Drilling muds are typically water based and have weights chosen to correspond with lithological and pore pressure conditions. • Conventional rock coring within the reservoir interval may occur but logging of cuttings returned with the drilling mud (mud logging) typically provides lithological and stratigraphical information for the units encountered (i.e., formation tops and formation thickness, etc.). Mudlogging is highly relevant in cases of drilling geothermal production or injection wells. Drilling data with regards to depth, time, rate of penetration (ROP), weight on bit (WOB), revolutions per minute (RPM), pump pressure, mud flow rates, and gas chromatography, among others, are constantly monitored and recorded. Resulting data are typically available or summarized in associated reporting.
Drill sample recovery	<ul style="list-style-type: none"> • Method of recording and assessing core and chip sample recoveries and results assessed. 	<ul style="list-style-type: none"> • While Vulcan has yet to conduct any new drilling or core sampling programs within the URVBF resource area, it owns its own production/re-injection wells in its core Insheim project and has access to operating geothermal production/re-injection wells at Landau, along with all

	<ul style="list-style-type: none"> Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	<p>associated technical information. This includes a large amount of drilling, geological, petrophysical and lithium brine data that apply to its resource areas within the Insheim, Landau, and Rift licences.</p> <ul style="list-style-type: none"> Brine samples from regional geothermal wells and the Insheim and Landau wells were generally recovered directly from the flowing brine stream within associated geothermal facility brine circuits, typically on both the “hot” and “cold” sides of such circuits. The brine sample collection method and sample collection documentation are in accordance with lithium brine industry standards and include procedures to avoid dilution of brine by drilling or process fluids prior to sample collection.
Logging	<ul style="list-style-type: none"> Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	<ul style="list-style-type: none"> Vulcan’s URVBF resource project benefited greatly from access to publicly available detailed lithological logs and down hole geophysical log (where available) data for the various oil and gas and geothermal wells that occur within or adjacent to the licenced areas. Government agencies have compiled such data for more than 30,000 oil and gas wells, geothermal, thermal, mineral water and mining boreholes across the entire URVBF, within and proximal to Vulcan’s resource areas. During 2020, Vulcan acquired additional detailed lithological and downhole geophysical measurements from geothermal well Brühl GT1-3 which is located approximately 5km from Vulcan’s northern license areas. It penetrated through the same Permo-Triassic strata being assessed by Vulcan. Wireline logging runs were performed in the open hole and included: FMI-GR (resistivity image, caliper), DSI-GPIT-PPS-GR (sonic, caliper), LDS-GR (density, photo electric factor), and UBI-GR (acoustic image). The downhole information provided both qualitative (e.g., litho-logs) and quantitative information such as porosity and permeability measurements. These data were used to study and assess the hydrogeological characteristics and variations between, for example, host rock matrix porosity and fault zone fracture porosity. From 2020 to 2022, Vulcan reinterpreted existing 2D seismic data in the Ortenau, Taro, and Lionheart (i.e., Insheim, Landau and Rift) licence areas. This interpretation benefited particularly from detailed study of historical well logs from two wells (Appenhofen 1 and Brühl GT1). These logs were acquired by companies other than Vulcan but their content facilitated Vulcan’s interpretation and correlation of subsurface stratigraphy. That is, the historical well logs data helped with interpretation of seismic line profiles and to confirm and validate key stratigraphic marker horizons including the Buntsandstein surface and various fault zones that are critical to the current resource estimation process. The detailed lithologic and geophysical well logging data acquired by Vulcan from various sources was assessed based on quality and resolution and incorporated into the URVBF

		<p>modelling that underlies the resource estimation program carried out by the company.</p> <ul style="list-style-type: none"> Based on validation discussions with Vulcan staff, plus review of compiled logging data and related geological and resource estimation digital models, the Mineral Resources CP has concluded that such data are acceptable for use in Vulcan's current brine resource estimation program.
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	<ul style="list-style-type: none"> Vulcan collects regular samples from the hot and cold circuit sample points at Insheim and Landau, to gain an understanding of whether the geothermal plant cycle influences lithium concentration as the brine cycles through the plant. The sample sizes are appropriate for industry standard brine assay testing and comparable to those documented in Vulcan's previous brine resource reports for the URVBF holdings prepared in 2019 and 2020. Vulcan's sampling protocol includes collection of the following three aliquots: <ul style="list-style-type: none"> one aliquot of the unfiltered, non-acidized brine sample for anion analysis one aliquot of unfiltered brine with supra-pure HNO₃ for total metal analysis via ICP-OES; and a filtered and acidized sample for analysing solutes (cations/ trace metals) and dissolved metal analysis via ICP-OES. Insertion of Sample Blanks and Sample Standards into the sample stream is included in the Vulcan sampling protocol. In addition, duplicate samples are collected at each sample site and the duplicate sample geochemical analyses was conducted at numerous laboratories that included independent University and commercially accredited laboratories. All labs have experience with analysing lithium in brine.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument 	<ul style="list-style-type: none"> The brine sample collection, sample handling, analytical techniques, and QA/QC protocols used by Vulcan conform to industry standards. The Mineral Resources CP concludes that Vulcan lithium brine sampling and analysis uses industry standard protocols and are acceptable for use in the Mineral Resource estimates.

	<p>make and model, reading times, calibrations factors applied and their derivation, etc.</p> <ul style="list-style-type: none"> • Nature of quality control procedures adopted (e.g., standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established. 	
Verification of sampling and assaying	<ul style="list-style-type: none"> • The verification of significant intersections by either independent or alternative company personnel. • The use of twinned holes. • Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. • Discuss any adjustment to assay data. 	<ul style="list-style-type: none"> • With focus on the Upper Rhine Valley Brine Field area, Vulcan has yet to conduct any new drilling or core sampling and therefore there is no twinned hole information to report. Vulcan has operating geothermal wells with proven drilling information and lithium grades within its Insheim license and access to operating geothermal wells in the Landau licence, as well as access to historical and/or nearby well data. • The Mineral Resources CP visited the Vulcan properties and Karlsruhe offices and laboratory for three full days, from November 8-10, 2022. At both the Landau and Insheim operations, the Mineral Resources CP collected five brine samples from the production wells. Two of samples were analysed at the Vulcan analytical laboratory in Karlsruhe, Germany (one sample location identified to Vulcan and one not identified). Two of the samples were analysed at the Karlsruhe Institute of Technology (KIT) Laboratory, (one sample location identified to Vulcan and one not identified). The fifth sample was analysed by AGAT Laboratories, an independent, ISO 9001:2015 registered laboratory in Calgary, Alberta, Canada (delivered by CP). All three labs routinely process high TDS brine, perform trace element analysis for lithium, and have rigorous internal QA/QC protocols. The mean lithium results from the three labs for site visit samples were similar (KIT 181 mg/L, Vulcan 177 mg/L and Canadian lab 171 mg/L). The results are also comparable to the lithium grade of 181 mg/L used in the current resource estimation for the southern Vulcan licences, which is based on previous. • Vulcan sampling results plus compiled URVBF results from other sources.
		<ul style="list-style-type: none"> • Verification samples were also collected by the previous Mineral Resources CP during site inspection in 2019. Samples were analysed at 2 separate commercial labs in Calgary, Alberta Canada (AGAT Laboratory and Bureau Veritas Laboratory). The analytical results showed a mean value of 180 mg/L Li. This result is similar to the average analytical

		result for Vulcan's regional well sampling and Insheim resource area well sampling programs (181 mg/L Li).
Location of data points	<ul style="list-style-type: none"> • Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. • Specification of the grid system used. • Quality and adequacy of topographic control. 	<ul style="list-style-type: none"> • The grid system used is UTM WGS84 zone 32N. • The surface Digital Elevation Model used in the three-dimensional model was acquired from JPL's Shuttle Radar Topography Mission (SRTM) dataset; the 1 arc-second gridded topography product provides a nominal 30 m ground coverage.
Data spacing and distribution	<ul style="list-style-type: none"> • Data spacing for reporting of Exploration Results. • Whether the data spacing, and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. • Whether sample compositing has been applied. 	<ul style="list-style-type: none"> • The resource study uses subsurface lithological information from existing, operating wells within the Insheim and Landau licences, and from off-property geothermal wells including at Vendenheim and Brühl. These well locations are supplemented with extensive 2D seismic data and limited 3D seismic data. • Vulcan has existing, operating geothermal wells with proven drilling information and ongoing lithium grade sampling results within the Insheim and Landau resource areas that form the core of the field. Existing production/re-injection wells are located within 10m of each other on the surface, and within 2km of each other at the target depth. The Landau and Insheim production wells, as well as Appenhofen well, in the Measured Resource area in Phase 1, are approximately 5km apart on the surface. • Subsurface 3D geological models were constructed by Vulcan, to outline the Permo-Triassic aquifers and fault domains underlying the URVBF, in support of resource estimation. Below is a description of the seismic surveys that were used to construct these models: <ul style="list-style-type: none"> ○ An area of 46.8 km² of the Taro licence area is covered by 3D seismic. The survey was initially referred to as 3D Speyerdorf. It was acquired in 2007 (operator: Geoenergy GmbH, acquisition & processing contractor: Geofizyka Toruń S.A.) and purchased by Vulcan in 2020. ○ Four legacy 2D lines from 2006 with a total length of ~42 km were re-processed together with the Taro 3D survey. One of them (SPE1) provides a valuable well tie to the closest offset wells in Neustadt. Seismic imaging (Common Reflection Surface migration) and SRD (Seismic Reflection Datum) parameters are identical to the Taro 3D survey. ○ With several data purchases from third party public and private entities completed, the Vulcan 2D database was expanded over the past year and now includes most existing 2D seismic data sets across most of Vulcan's license areas in the URVBF.

		<ul style="list-style-type: none"> ○ The GeORG Project provided an extensive interpreted 2D seismic grid across the URG which complemented interpretation. • The orientation of the Permo-Triassic strata is generally flat-lying and continuous in the URVBF area. High-angle faults have created a complex horst and graben structural environment. However, the Permo-Triassic strata are generally laterally continuous, despite being locally offset by rift-related faulting. It is noted that the Permo-Triassic strata have been mapped for approximately 250 km along the north-northeast strike length of the entire URVBF. • With respect to lithium brine concentration, the average brine analytical results from both the regional well sampling and detailed Vulcan sampling at the Upper Rhine Valley Brine Field resource area from 2019 to 2022 are comparable, with a combined average value of 181 mg/L lithium. In addition, these values are comparable to historical and proprietary lithium concentrations that were compiled throughout the URVBF. The combination of Vulcan-sampled and historically sampled and analysed brine shows a narrow range of lithium brine concentrations in the Permo-Triassic aquifer brine in the vicinity of and within Vulcan's licences, as well as consistency over time. • With respect to spacing between sample points, there were no lithium brine samples collected within the boundaries of the Rift, Kerner, Taro, Ortenau, Mannheim, Ludwig, Therese, or Fuchsmantel-Flaggenturm licences. The closest wells to these areas include the Insheim area (Insheim GT-1 and GT-2 wells; ca. 2km from Rift), Landau (Landau GtLa 1 and Landau-Süd wells, ca. 5km from Kerner), Brühl (Brühl GT-1 well; 5km from Ludwig), and Vendenheim (ca. 5km from Ortenau). • Given the consistency of the lithium grades within the reservoir, and the sedimentary, continuous nature of the reservoir itself, the data spacing, and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> • Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. • If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be 	<ul style="list-style-type: none"> • Vulcan has two operating geothermal wells (Insheim and Landau) with proven drilling information and ongoing lithium grade results. These wells were highly deviated to intercept fault zones that constitute corridors of high fluid flow. Based on the overall dimensions of the Permo-Triassic aquifer and consistent analytical results, no sample bias is expected. • The 3D geological models were constructed by Vulcan using 2D seismic results and, to a lesser extent, 3D seismic results purchased from previous licence holders or contained in the GeORG data sets. In the seismic interpretation, formation horizons were selected based on the uniqueness of the marker horizons within the seismic profiles. <p>Fault zones were picked only where they could be positively identified in the seismic lines and were correlated in consideration of their offset, dip angle and depth.</p>

	assessed and reported if material.	<ul style="list-style-type: none"> • Marker horizons were validated against wireline logs and check shot data from the acquired well data drilled in or adjacent to the south and northeast portions of the URVBF resource area. On this basis, it is concluded that there is good agreement between the re-interpreted seismic line data and the in-situ stratigraphy throughout the field. • Access to detailed data from studies of nearby geothermal wells acquired by Vulcan in 2020 improved understanding of the hydrogeological characteristics of the fault and fracture zones within the Permo-Triassic strata. The structurally complex fault damage zones are interpreted to typically represent conduits for localised high fluid flow of mineralised brine, due to higher fracture abundance and high fracture connectivity. • In the opinion of the Mineral Resources CP, Vulcan's revised URVBF geological models, based on the totality of seismic data and drilling data available to date, provide an acceptable level of confidence in the spatial location and orientation of the top and bottom surfaces of Muschelkalk, Buntsandstein and Rotliegend Group successions, as well as the basement surface and fault zones. Further, the resulting models are considered to provide a reasonable approach for estimating Gross Rock Volumes, for use in resource estimation.
Sample security	<ul style="list-style-type: none"> • The measures taken to ensure sample security. 	<ul style="list-style-type: none"> • Vulcan's 2019 through 2022 brine sampling programs were conducted by Vulcan employees. Samples were transferred with chain of custody from sample site to analytical laboratories that included: the Vulcan Lab in Karlsruhe, the Karlsruhe Institute of Technology (KIT), University of Heidelberg (Uni HD), and IBZ-Salzchemie GmbH & Co. KG in Halsbruecke, Germany. • Independent sampling by the CP was discussed earlier in Section 1, under "Verification of sampling and assaying."
Audits or reviews	<ul style="list-style-type: none"> • The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> • A review and check of the URVBF resource estimations was completed by an external consultant independent from Vulcan (GLJ). In addition, the CP (independent of Vulcan) conducted a review of all Vulcan activities that supported resource estimation and the activities of the external resource check consultant. • The Mineral Resources CP assisted with, and reviewed, the adequacy of Vulcan's sample collection, sample preparation, security, analytical procedures and QA/QC protocol, and conducted a site inspection of the Vulcan Property in November 2022. • The Mineral Resources CP participated in numerous and ongoing discussions and meetings involving methods and interpretations for the exploration work to define the geometry and hydrogeological characterization of the Permo-Triassic aquifer that forms the basis of the current resource model. • Independent sampling by the CP was discussed earlier, in Section 1, under "Verification of sampling and assaying."

Section 2: Reporting of Exploration Results.

Criteria	JORC Code Explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	<ul style="list-style-type: none"> The Vulcan Zero Carbon Lithium™ Project area within the URVBF is comprised of 15 licenses (13 exploration licenses and two geothermal production licenses), thirteen of which, including the Insheim production license, are 100% owned by Vulcan (Taro-Lisbeth, Ortenau II, Mannheim, Therese, Ludwig, Kerner, Löwenherz, Fuchsmantel-Flaggenturm, Ried, Waldnerturm, Lampertheim and Lampertheim II, Insheim), one of which is an exploration license where Vulcan has an agreement to develop geothermal brine projects in return for a royalty payment, and one where Vulcan has an offtake agreement with the owner operator for the existing geothermal operation, and a 51:49% JV agreement (in Vulcan's favour) to develop a new geothermal brine project on the same license, at a separate location. All of them (apart from Lampertheim, Lampertheim II, Löwenherz, Waldnerturm and Ried) collectively cover the current lithium brine Mineral Resources described in this document. In addition, Vulcan has a further 11.46 km² of granted exploration licenses in Italy not included in this resource estimate, and applied for 155 km² within the Upper Rhine Valley of France. For present purposes, the Insheim, Landau and Rift licences are referred to as Vulcan's Lionheart Project area. For the purposes of development, the Insheim, Landau- Süd, Rift-Nord. Kerner and Taro licences are termed Phase One. An Exploration Licence is issued pursuant to the German Federal Mining Act (Bundesberggesetz: BBergG) which defines freely mineable mineral resources as property of the state that is administered by state authorities. Accordingly, state permits are required for exploration and extraction. Vulcan requires both an Exploration Licence and an Extraction Licence or Mining Proprietorship to ultimately produce from its holdings. Any future geothermal brine production from any site would also require granting of a Production Licence plus completion of an operating plan and planning approval procedure that comply with the <i>Act on the Assessment of Environmental Impacts</i>. An Exploration Licence is granted for a maximum of five years and can be extended by a further three years under certain conditions. If exploration has not commenced within one year of the licence being granted, the licence may be revoked. The same result may apply if exploration is interrupted for more than one year. The Exploration Licence is merely a legal title for the exploration of mineral resources in the granted area and is not sufficient to carry out technical programs such as seismic surveys or exploration work in the form of drilling. For such purposes, an operating plan (Betriebsplan) must be approved by the responsible state authority. An Exploration Licence shall accord the holder the exclusive right to: Explore for the geothermal resources specified in the

		<p>licence; to extract and acquire ownership in the resources that must be stripped or released during planned explorations; to erect and operate facilities that are required for exploring the resources and for carrying out related activities.</p> <ul style="list-style-type: none"> • The CP was advised by Vulcan that all Exploration and Production Licences covering its URVBF were in good standing at the Effective Date of the current Mineral Resource estimate. A tabulation of Vulcan's Exploration Licence holdings within its resource area is presented below. • The Mannheim licence in the northeast of the licence group is 14,449 hectares and is centred at UTM 465874 m Easting, 5484762 m Northing, in the WGS84 UTM Zone 32N projection. • The Ludwig licence in the north central area of the licence group is 9,634 hectares and is centred at UTM 457285 m Easting, 5480857 m Northing, in the WGS84 UTM Zone 32N projection. • The Therese licence in the north central area of the licence group is 8,112 hectares and is centred at UTM 451123 m Easting, 5482018 m Northing, in the WGS84 UTM Zone 32N projection. • The Fuchsmantel-Flaggenturm licence in the central area of the licence group is 28,228 hectares and is centred at UTM 444023 m Easting, 5475828 m Northing, in the WGS84 UTM Zone 32N projection. • The Kerner licence in the south-central area of the licence group is 7,226 hectares and is centred at UTM 438513 m Easting, 5462653 m Northing, in the WGS84 UTM Zone 32N projection. • The Ortenau II Licence in the south of the licence group is 37,410 hectares and is centred at approximately: UTM 421900 m Easting, 5384900 m Northing, Zone 32N, WGS84. • The Taro-Lisbeth licences in the south-central area of the licence group are 3,268 hectares and are centred at UTM 445481 m Easting, 5464438 m Northing, in the WGS84 UTM Zone 32N projection. • The Landau- Süd licence in the southern area of the licence group is 1,941 hectares and is centred at UTM 435916 m Easting, 5448130 m Northing, in the WGS84 UTM Zone 32N projection. • The Insheim licence in the southern area of the licence group is 1,900 hectares and is centred at UTM 439040 m Easting, 5444442 m Northing, in the WGS84 UTM Zone 32N projection. • The Rift North licence in the southern area of the licence group is 6,483 hectares and is centred at UTM 435535 m Easting, 5442945 m Northing, in the WGS84 UTM Zone 32N projection. • Outside of the resource area, Vulcan has five other exploration licenses within the Upper Rhine Valley: Lampertheim, Lampertheim II, Löwenherz, Waldnerturm and Ried. • Vulcan has 100% interest in all these licences except for Rift-Nord, in which it has a 100% right to any new geothermal brine
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		<p>project developed there, and Landau- Süd, where Vulcan has a brine offtake agreement with the owner-operator for the existing geothermal brine operation, and a 51:49 JV for a new development in the same license.</p> <ul style="list-style-type: none"> • Vulcan was granted 100% of the Ortenau II and Mannheim Exploration Licence for geothermal, brine and lithium exploration by the Baden-Württemberg government office, which is managed by the Freiburg State Office, Council for Geology, Raw Materials and Mining. • On December 13, 2021, Vulcan was granted 100% of the Ludwig, Therese and Kerner Exploration Licence for geothermal and Lithium exploration by the Rheinland Pfalz government office, which is managed by the Mainz State Office, Council for Geology and Mining. • In May 2022 Vulcan acquired 100% of the Flaggenturm Exploration Licence for geothermal exploration granted on December 2, 2020, from Finap Beteiligungs GmbH, Berlin. • In May 2022 Vulcan acquired 100% of the Fuchsmantel Exploration Licence for Lithium exploration granted July 14, 2021 from Finap Beteiligungs GmbH, Berlin. • On December 7, 2022 Vulcan and Geo Exploration Technologies GmbH, Mainz signed a shared Licence agreement. Under the terms of the agreement Vulcan has the right to explore and develop lithium and geothermal energy on the northern part of Geo Exploration Technologies' Rift Licence based on a royalty agreement. The agreement has been approved in writing by the Rheinland Pfalz government office, which is managed by the Mainz State Office, Council for Geology and Mining, and is subject to formal registration of joint ownership of the license by the same office. • The Insheim production Licence and Insheim Geothermal Power Plant were acquired by Vulcan through the 100% acquisition of Pfalzwerke geofuture GmbH effective on 1. of January 2022. • The Taro-Lisbeth Licences were acquired by Vulcan through the 100% acquisition of Global Geothermal Holding UG on 15. February 2021. • On November 5, 2021, Geo-x GmbH, Landau, owner of the Landau geothermal plant and Landau-Süd geothermal production license, was granted 100% of the Ilka Exploration Licence for Lithium exploration by the Rheinland Pfalz government office, which is managed by the Mainz State Office, Council for Geology and Mining. In parallel in November 2021 Vulcan and geo-x GmbH signed a brine offtake agreement. Under the terms of the agreement Vulcan has the right to purchase and extract the lithium from the brine produced at the Landau plant until 2043. In addition, Vulcan has entered into a 51:49 JV to develop a new geothermal project on the Landau-Süd license, separate to the existing project. • The CP notes that there is always some risk or uncertainty that government regulations and policies could change between the issuance and termination dates of Exploration
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		<p>Licences, Production Licences and related permits issued by state authorities.</p> <ul style="list-style-type: none"> Any future geothermal and/or lithium brine production would require an operating plan and planning approval procedure that complies with the Act on the Assessment of Environmental Impacts. In the URVBF, induced seismicity is a potential risk which can be caused by injection of brine. The CP notes that mitigation of such risk may be addressed by the following activities, among others: <ul style="list-style-type: none"> Performing regular seismic monitoring, as is currently practiced by Vulcan at its Insheim wells and plant; Reducing production flow rates temporarily if seismicity occurs during the operational phase.
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> The URVBF is under active exploration for its geothermal potential by multiple companies. Geothermal production is currently occurring at several sites other than those in which Vulcan is involved. As a result, important geological and brine data developed in support of non-Vulcan initiatives and evaluations is present. This has been accessed to the maximum degree possible by Vulcan for application in its own exploration and development programs. Historical brine geochemical analytical results include historical analysis from the Landau, Insheim, Soultz, Brühl, and Vendenheim geothermal sites from 2019 to 2021. This includes samples from the Buntsandstein Group aquifer (n=6) and the Rotliegend Group-basement aquifer (n=11). The areal weighted mean concentration of these samples is 181 mg/L lithium. The historical data are presented in referenced journal manuscripts and the Mineral Resources CP has verified that the analytical protocols were standard in the field of brine analysis and conducted at university-based and/or accredited laboratories. The historical geochemical information was used as background information and was also used as part of the resource estimation process. GeotIS and GeORG data were evaluated and used to support construction of the 3D geological model used in Vulcan's current Mineral Resource estimates. GeotIS and GeORG are digital geological atlases with emphasis on geothermal energy. They provide access to extensive compilations of well data, seismic profiles, information, and interpreted schematic cross sections from the evaluation of 2D seismic data with emphasis on deep stratigraphy and aquifers in Germany. The raw data, such as seismic data, are not available, as they are owned by the respective energy companies, but data profiles have been collated and interpreted for inclusion in the representative geo-dataset information systems. The Lionheart Project area (Lionheart) and Taro-Lisbeth Licence area 3D modelling was improved beyond the constraints of GeORG subsurface information through Vulcan's 2020 acquisition of 2D seismic profile lines for these areas. This 2D seismic data acquisition was then extended to Vulcan's other license areas across the URVBF. These data

		<p>were acquired by Vulcan specifically for the purpose of improving the associated 3D geological model. The seismic information and subsequent 3D geological models were re-interpreted by Vulcan as part of Vulcan's 2020-22 exploration work.</p> <ul style="list-style-type: none"> Any modelling or data artifacts within the model space were addressed by Vulcan and/or an independent consultant (GLJ) with involvement of the CP, in advance of the current Mineral Resource modelling. Detailed studies of data from geothermal well Brühl GT-1 which is located ca. 5 km south of Vulcan's Ludwig license and drilled in 2013, were carried out by Vulcan in 2020 to better understand the hydrogeological characteristics of the fault/fracture zones within the surrounding Permo-Triassic strata. The dataset included detailed lithological log and downhole wireline log information that included FMI-GR (resistivity image, caliper), DSI-GPIT-PPS-GR (sonic, caliper), LDS-GR (density, photo electric factor), and UBI-GR (acoustic image). Vulcan commissioned GeoT, now part of Vulcan, to describe and characterise this nearby well data. Specific focus was placed on the Buntsandstein Group pore space and micro-fractures to develop comparative models for the Permo-Triassic strata underlying the Lionheart and Taro areas. Insight gained from this detailed work was subsequently applied by Vulcan across the broader spatial extent of the URVBF.
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> The lithium mineralisation at the URVBF is situated within confined, subsurface aquifers associated with the Permocarboniferous Rotliegend Group, the Lower Triassic Buntsandstein Group, and the Middle Triassic Muschelkalk Group (collectively, the Permo-Triassic strata) sandstone aquifers and carbonates situated within the URVBF at depths of between 2,165 and 4,004 m below surface. The Muschelkalk aquifer may not be present in the northern licences and is only included in the resource calculations for the Taro-Lisbeth, Insheim, Landau, and Ortenau licences. The Permo-Triassic strata are comprised predominantly of terrigenous sand facies, with minor shales, carbonates, and anhydrites, deposited in arid to semi-arid conditions in fluvial, sandflat, lacustrine and eolian sedimentary environments. The various facies exert controls on the porosity (1% to 27%) and permeability (<1 to >100 mD) of sandstone sub-units. Within the Permo-Triassic strata, porosity, permeability, and fluid flow rates are dependent on the fault, fracture and micro-fracture zones that are targeted by geothermal companies in the URVBF. Lithium mineralisation occurs in the brine that is occupying the Permo-Triassic aquifer pore space. With respect to a deposit model, the lithium chemical signature of the brine is believed to be controlled by geothermal fluid-rock geochemical interactions. With increasing depth, total dissolved solids (TDS) increase in NaCl-dominated brine. Lithium enrichment associated with these deep brines is considered to be related to interaction with hot crystalline basement fluids and/or dissolution of micaceous materials at higher temperatures. Vulcan's current URVBF geological models benefit from reinterpretation of existing 2D and 3D seismic data acquired in 2020-22 by Vulcan. Depending upon the area considered, the seismic reinterpretation program mapped in detail four

		<p>formation horizons based on their uniqueness within the seismic profiles. Faults were interpreted where doubling of a specific reflector occurs (thrust fault) or where a specific reflector is missing (normal fault). Numerous substantial faults penetrating through the Buntsandstein Group strata are interpreted for the entire Vulcan URVBF in the most recent geological model. The seismic interpretation mapped, in detail, formation horizons based on the uniqueness of the marker horizons within the seismic profiles. Faults were interpreted by evaluating every tenth inline and crossline (line spacing of approximately 20 m). To be interpreted as a fault zone, a feature was required to have a minimum horizontal extension of 400 m. Damage zone envelopes associated with particularly well-defined faults were developed through modelling and are applied as 200 m fault damage zone half widths from the fault centre.</p> <ul style="list-style-type: none"> • In the opinion of the Mineral Resources CP, the current geological models provide a level of confidence that is reasonable in terms of identifying the spatial location and orientation of the Buntsandstein Group, Rotliegend Group, Muschelkalk zone basement and constituent faults for use in the current resource estimates. • The structurally complex fault damage zone areas are interpreted from geological modelling as representing zones for localised high fluid flow of mineralised brine, due to higher fracture abundance and connectivity.
Drill hole Information	<ul style="list-style-type: none"> • A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> ○ easting and northing of the drill hole collar ○ elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar ○ dip and azimuth of the hole ○ down hole length and interception depth ○ hole length. • If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the 	<ul style="list-style-type: none"> • Within the URVBF, due to the nature of deep geothermal development in mature brine fields, Vulcan has yet to conduct any new drilling or coring programs. However, the current Mineral Resource study was able to utilize subsurface lithological information from existing production/re-injection wells that Vulcan owns or has agreements to access, as well as historical wells within and adjacent to the holding. • There are numerous historical geothermal wells or petroleum wells drilled by other companies that extend deep enough to penetrate Permo-Triassic strata within the URVBF licence area. • Location coordinates plus orientation information for wells used to assess the lithium concentration of brine within Permo-Triassic aquifers covered by Vulcan's URVBF holdings are tabulated below. • Coordinate system: DHDN/3-degree Gauss zone 3, EPSG:31463.

	report, the Competent Person should clearly explain why this is the case.	<table><tr><th>Hole Name</th><th>Collar Easting (m)</th><th>Collar Northing (m)</th><th>Collar Elevation (m)</th><th>Azimuth (deg)</th><th>Total Depth (TVDSSm)</th><th>Top Perforation (TVDSSm)</th><th>Base Perforation (TVDSSm)</th></tr><tr><td>Landau Gt-La1</td><td>3436152</td><td>5450302</td><td>149</td><td>270</td><td>-2896</td><td>-2324</td><td>-2896</td></tr><tr><td>Landau Gt-La2</td><td>3436149</td><td>5450308</td><td>149</td><td>90</td><td>-3107</td><td>-2135 -2726</td><td>-2641 -2922</td></tr><tr><td>Insheim GT11</td><td>3438343</td><td>5446624</td><td>139.78</td><td>146</td><td>-3410</td><td>-3113</td><td>-3410</td></tr><tr><td>Insheim GT11b</td><td>3438343</td><td>5446624</td><td>139.78</td><td>146</td><td>-3611</td><td>-2319 -2657 -2850 -2972</td><td>-2624 -2680 -2873 -3611</td></tr><tr><td>Insheim GT12</td><td>3438345</td><td>5446617</td><td>139.78</td><td>34</td><td>-3525</td><td>-2775 -3253</td><td>-3081 -3525</td></tr><tr><td>Soultz EPS1</td><td>3417106</td><td>5422154</td><td>176.6</td><td>n/a</td><td>-2035</td><td>-</td><td>-</td></tr><tr><td>Brühl GT1</td><td>3465862</td><td>5472347</td><td>98.3</td><td>n/a</td><td>-3174</td><td>-3022</td><td>-3183</td></tr><tr><td>Vendenheim GT1</td><td>3409685</td><td>5390570</td><td>135</td><td>-120-130</td><td>-4515</td><td>-</td><td>-</td></tr></table>	Hole Name	Collar Easting (m)	Collar Northing (m)	Collar Elevation (m)	Azimuth (deg)	Total Depth (TVDSSm)	Top Perforation (TVDSSm)	Base Perforation (TVDSSm)	Landau Gt-La1	3436152	5450302	149	270	-2896	-2324	-2896	Landau Gt-La2	3436149	5450308	149	90	-3107	-2135 -2726	-2641 -2922	Insheim GT11	3438343	5446624	139.78	146	-3410	-3113	-3410	Insheim GT11b	3438343	5446624	139.78	146	-3611	-2319 -2657 -2850 -2972	-2624 -2680 -2873 -3611	Insheim GT12	3438345	5446617	139.78	34	-3525	-2775 -3253	-3081 -3525	Soultz EPS1	3417106	5422154	176.6	n/a	-2035	-	-	Brühl GT1	3465862	5472347	98.3	n/a	-3174	-3022	-3183	Vendenheim GT1	3409685	5390570	135	-120-130	-4515	-	-
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Data aggregation methods	<ul style="list-style-type: none">• In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g., cutting of high grades) and cut-off grades are usually Material and should be stated.• Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.• The assumptions used for any reporting of metal equivalent values should be clearly stated.	<ul style="list-style-type: none">• Average lithium grade values used in the resource calculation differed between the southern licences (Phase One plus Ortenau) and the northern licences (Phase Two excluding Ortenau)• For the Phase One licenses (plus Ortenau), in the central and southern part of the Upper Rhine Graben, the average lithium content from brine collected by Vulcan from six geothermal wells, (including its 100%-owned Insheim geothermal wells and plant), located throughout the Upper Rhine Graben and proximal to the Ortenau and Taro licences was used as the representative grade for Resource Estimation. This grade was 181 mg/L Lithium (n=13 total metal analyses by ICP-OES). In addition, a detailed assessment of Permo-Triassic aquifer brine at the Insheim resource area production well yielded 181 mg/L Lithium (n=26 analyses). This grade was also used as the regional Lithium brine value for previous resource estimates (ASX, 2020), and also for the current update. These brine geochemical results demonstrate that the Permo-Triassic brine in the Upper Rhine Graben has a relatively homogeneous lithium chemical composition in the vicinity of Vulcan's central and southern license areas.• For the more northerly Phase Two licences (excluding Ortenau), the lower lithium concentration measured from the Brühl well was conservatively used as representative of the lithium grade of these areas, after correction was made for dilution. Samples were collected from the Brühl well during production testing in 2013. The well was not subsequently available for sampling, due to project circumstances and sealing of the well. Aliquots of the 2013 sample were provided to Vulcan and were archived, and eventually analysed in 2019, as part of the wider sampling and analysis program at that time. Results were recognized as being influenced by dilution, consistent with the use of freshwater during production testing, and also with loss of drilling fluids. Vulcan conducted																																																																								

		<p>an assessment and interpretation of the results based on reservoir temperature estimates using geothermometers developed for geothermal brines. These calculations resulted in an estimate of original lithium content (before dilution) of 153 mg/L, which was identified as a potentially conservative correction. For comparison, the measured value in the sample was 104 mg/L (total lithium). The calculated lithium value (153 mg/L) was used as the grade in the current Resource Estimates for the Northern licenses. The CP has reviewed these interpretations and considers the resource grade to be conservative to realistic.</p> <ul style="list-style-type: none"> • The brine geochemical data presented and evaluated by Vulcan represent laboratory analytical values. Averaging of results has been carried out in some instances but resulting mean values are clearly identified as such where this has taken place. • Elemental lithium values applied in the current Vulcan resource estimate were converted to Lithium Carbonate Equivalent ("LCE") using a conversion factor of 5.323, based on the stoichiometric quantity of lithium in Li_2CO_3. Reporting lithium values in LCE units is standard lithium industry practice.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> • These relationships are particularly important in the reporting of Exploration Results. • If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. • If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known'). 	<ul style="list-style-type: none"> • Vulcan has operating geothermal wells with proven drilling information and ongoing measurement of lithium grades, within the Insheim and Landau licences in the core of the field. • With respect to the geothermal well data used, all engineering aspects of the wells are documented. Hence, the Mineral Resources CP has a good indication of the true vertical depths of the perforation windows used to sample and pump brine from the Permo-Triassic aquifers to the surface, for geothermal power generation. • As mineralisation is related to liquid brine within a confined aquifer, intercept widths are not a critical concept. Well perforation points essentially gather mineralised brine from the aquifer at large, assuming the pumping rate is sufficient to create drawdown in the aquifer.
Diagrams	<ul style="list-style-type: none"> • Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views. 	<ul style="list-style-type: none"> • The current associated News Release and previous News Releases by Vulcan include explanatory figures that were used in reporting of project information to support respective resource estimation disclosures. • All map images include scale and direction information such that the reader can properly orientate the information being portrayed.
Balanced reporting	<ul style="list-style-type: none"> • Where comprehensive reporting of all Exploration Results is not practicable, 	<ul style="list-style-type: none"> • Comprehensive reporting of all exploration results is presented in the associated News Release and in the Technical Reports associated with Vulcan's URVBF Exploration Licences.

	<p>representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</p>	<ul style="list-style-type: none"> There are no outlier analytical results in the geochemical dataset used to evaluate the lithium concentration of Permo-Triassic aquifer brine. The lithium brine values, within analytical error margins, are interpreted to be relatively homogenous in the vicinity of Vulcan's Exploration Licences, as informed by brine analytical data assembled by Vulcan.
Other substantive exploration data	<ul style="list-style-type: none"> Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances. 	<ul style="list-style-type: none"> A substantive amount of historical data was used to investigate and characterize the configuration and hydrogeological properties of the Permo-Triassic aquifers. These aquifers include the Buntsandstein Group, Rotliegend Group and Muschelkalk Group. Hydrogeological properties include porosity and permeability. Historical geochemical data were used to assess the lithium concentration in Permo-Triassic aquifer brine. A total of 43 historical brine analysis records were compiled. These historical data were verified by Vulcan, and it is the opinion of the Mineral Resources CP that: <ul style="list-style-type: none"> The Permo-Triassic aquifer is relatively homogeneous in terms of lithium concentration within the extent of Vulcan's URVBF Exploration Licences. The verification of historical geochemical results produced a geochemical dataset that is adequately reliable for inclusion in the current resource estimation. During 2020, Vulcan commissioned GeoT, now part of Vulcan, to: 1) review the acquired seismic information and nearby well data, 2) to conduct hydrogeological characterisation studies specific to URVBF Permo-Triassic fault/fracture zones, and 3) make inferences on potential geothermal well (and Lithium brine) production scenarios and their influence on fluid flow within and adjacent to fault/fracture zones. The Mineral Resources CP has reviewed a series of related internal reports and found them to be factually prepared by persons holding post-secondary degrees with an abundance of experience and knowledge in geothermal and geochemical evaluation within the URVBF. Numerous geothermal, or oil and gas wells, were historically drilled by companies other than Vulcan within the boundaries of the URVBF licences. Intersected formation tops were reviewed for five historical wells in the Lionheart (i.e., Insheim, Landau, and Rift) development area and Taro. Two of these wells (Insheim GTI1 and GTI2) intersected formation tops of the Muschelkalk, Buntsandstein and Rotliegend groups as well as the basement rock of the URVBF.
Further work	<ul style="list-style-type: none"> The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, 	<ul style="list-style-type: none"> Vulcan plans to continue to de-risk and develop its Zero Carbon Lithium™ Project in the Upper Rhine Valley Brine Field using the following systematic, stepwise approach: <ul style="list-style-type: none"> Drill development wells across Vulcan's core "Phase One" area contemplated within its DFS, focused on the producing, core of the field in the Insheim-Landau region and neighbouring region in Taro-Lisbeth/Kerner. The focus should be on sustainably increasing brine production and re-injection flow rates across the field to

	including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	<p>feed larger scale commercial production, using recently acquired state-of-the-art seismic data and associated modelling and simulation. Continually refine model as more data is gathered during the development drilling and ramp-up of brine flow, aiming for continuous improvement during development.</p> <ul style="list-style-type: none"> Construction, commissioning, and implementation of a pre-commercial demonstration plant, to train a lithium operations team in a pre-commercial environment. Continuation of the demonstration plant operation, and current pilot plant operation which has been operating since April 2021, to further optimise operating conditions prior to commercial production start. Execution of further 3D seismic surveys in step out, Phase Two areas, along with processing, interpretation and analysis of these surveys to run field simulations and further optimise field development plans, and associated further feasibility studies to develop these areas to the next stage. Drilling of Phase Two, step out development wells in these areas. Further acquisition of 2D and 3D seismic data, and where applicable drilling data, across outer-lying regions and newly acquired areas in the URVBF, resulting in enhanced understand of the field, and the ability to develop further phases. Drilling of test well into northern target area near Frankfurt, designated "Ried", to test if the brine reservoir is lithium-bearing to the north. Conduct research and development on the potential for a "recharge effect" on lithium from basement rocks, to estimate the long-term effects on the lithium resources in the region. Execution of a bridging engineering phase for Phase One, towards project execution, construction and commissioning. This engineering phase will include value improvement initiatives to optimize the field development plan and project economics.
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Section 3: Estimation and Reporting of Mineral Resources.

Criteria	JORC Code Explanation	Commentary
Database integrity	<ul style="list-style-type: none"> Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, 	<ul style="list-style-type: none"> A review of compiled data was conducted by the Mineral Resource CP who, to the best of their knowledge, can confirm the data was generated with proper procedures, has been accurately

	<p>between its initial collection and its use for Mineral Resource estimation purposes.</p> <ul style="list-style-type: none"> Data validation procedures used. 	<p>transcribed from the original source and is suitable for use in the resource estimations.</p> <ul style="list-style-type: none"> Independent sampling by the CP was discussed earlier in Section 1, under "Verification of sampling and assaying." 3D geological models were prepared for the Vulcan licenses, with the use of extensive 2D seismic data and more limited 3D data. These data were interpreted by Vulcan and represented in modelling software Petrel. Interpreted features included picks for the upper and lower surfaces of the Muschelkalk Formation, Buntsandstein Group and Rotliegend Group, plus fault locations. Model representations were checked by third party modellers (GLJ), with involvement of the CP. In the opinion of the CP, these geological representations, and the seismic data used to develop them are reasonable and appropriate for resource estimation. Numerous hydrodynamic property studies and data were compiled from throughout the URVBF by Vulcan, to support the selection of appropriate values for Effective Porosity (Phie) and Net to Gross ratio (NTG) to use in resource estimation. In the opinion of the CP, these studies, and the resource estimation parameters that were derived them, are reasonable and appropriate. Based on the Mineral Resources CP's previous extensive experience in estimating lithium brine resources and reserves, and associated sampling and analytical protocols, the Mineral Resources CP is satisfied with the integrity of the chemistry, geological and hydrodynamic datasets and information sources used to estimate Mineral Resources. For an additional summary of the lithium analytical results used in the resource estimation, please see ASX announcements by Vulcan dating 4 December 2019 and 20 August 2020. Recent lithium data from the lithium extraction Pilot Plant operations at the Insheim-Landau geothermal wells was materially similar and reinforced the confidence in the average values derived from these original results, within analytical error.
Site visits	<ul style="list-style-type: none"> Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	<ul style="list-style-type: none"> The Mineral Resources CP visited the Vulcan properties and Karlsruhe offices and laboratory for three full days, from November 8-10, 2022. The inspection included detailed tours of the two operating sites (Landau and Insheim), a review of the in-progress 3D seismic survey on the Insheim licence, and reconnaissance visits to all the remaining licences. Independent sampling by the CP was discussed earlier in Section 1, under "Verification of sampling and assaying."
Geological interpretation	<ul style="list-style-type: none"> Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. 	<ul style="list-style-type: none"> The addition, and reinterpretation, of new and existing 2D and 3D seismic data, combined with verification of lithium grades over time from lithium pilot plant operations at the geothermal production well sites, significantly increased the Mineral Resources CP's confidence level in the subsurface 3D geological models that supported resource estimation. The interpreted seismic data and subsequent structural model enabled an independent consultant (GLJ) with participation of the Mineral Resources CP and an additional independent consultant (Mercator) to create detailed Muschelkalk zone, Buntsandstein Group, Rotliegend Group surfaces. The 2D seismic profiles

	<ul style="list-style-type: none"> The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology. 	<p>(including the GeORG data and other more recently acquired data) covered 100% of Vulcan's URVBF licences. The 3D seismic data set over the Taro licence covers approximately 5% of the URVBF area. This will soon be complemented by recently acquired 3D seismic surveys in the Insheim-Landau and Mannheim areas.</p> <ul style="list-style-type: none"> Using the seismic profiles, subsurface stratigraphic horizons were correlated throughout the URVBF licences. The marker horizons were validated against wireline logs from wells drilled in the southern and adjacent to the northern portions of the URVBF licence areas. The fault/fracture zones were distinguished in the seismic profiles. The vertical displacement of the fault zones on the seismic profiles enabled definition of the activity level of the fault zone, with many interpreted to be active. The fault zones were picked only where they could be positively identified in the seismic lines and the faults were correlated in consideration of their offset, dip angle and depth. The vertical displacement of the fault zone on the seismic profiles was also used to make calculated inferences on the horizontal width of the fault zone in the geological model. The addition of 2D and 3D seismic data significantly increased the confidence level in the subsurface 3D geological model. Interpretation of a detailed downhole geophysical dataset from the Brühl well, near Vulcan's Ludwig and Mannheim licences in the northern area of the URG, enhanced the analysis of hydrogeological characteristics, including average fracture porosity, within URVBF fault/fracture zones.
Dimensions	<ul style="list-style-type: none"> The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource. 	<ul style="list-style-type: none"> The geometry of the Permo-Triassic strata in the URVBF has a gentle northward dip at the southern end of the field (i.e., at the Ortenau licence area) which transitions to a south-east dip further northwards at the Taro licence area. The top and base surface elevations of the Buntsandstein Group under the URVBF licences are approximately from 2000 m (south) to 3800 m (north) subsea (m SS) with an average thickness range of 310 m in the north and 380 m in the south, up to 475m thick locally. The top and base surface elevations of the Rotliegend Group under the URVBF licences south of the Taro licence are approximately from 2200 m SS to 3300 m SS with an average thickness range of 120 m to 310 m, across the URVBF.
Estimation and modelling techniques	<ul style="list-style-type: none"> The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description 	<p><i>The Lithium Resource is defined as the summation of the following, for all unique units within a given Licence:</i></p> <p><i>Total Volume of the Brine-Bearing Aquifer (GRV) x Average Effective Porosity (Phie) x Average Net to Gross (NTG) x Average Concentration of Lithium in the Brine (C).</i></p> <ul style="list-style-type: none"> The parameter values used in the Resource Estimate are summarised in the table below.

- of computer software and parameters used.
- The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.
 - The assumptions made regarding recovery of by-products.
 - Estimation of deleterious elements or other non-grade variables of economic significance (e.g., sulphur for acid mine drainage characterisation).
 - In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.
 - Any assumptions behind modelling of selective mining units.
 - Any assumptions about correlation between variables.
 - Description of how the geological interpretation was used to control the resource estimates.
 - Discussion of basis for using or not using grade cutting or capping.
 - The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.

Licence	Reservoir		Classification	GRV km ³	Avg. NTG %	Avg. Phie %	Avg. Li mg/L
Mannheim	BST	FDZ	Indicated	4	90	10	153
	BST	HRM	Inferred	32	65	9	153
Ludwig	BST	FDZ	Indicated	7	90	10	153
	BST	HRM	Inferred	22	65	9	153
Therese	BST	FDZ	Indicated	2	90	10	153
	BST	HRM	Inferred	22	65	9	153
Flaggenturm	BST	FDZ	Indicated	7	90	10	181
	BST	HRM	Inferred	37	65	9	181
Kerner	BST	FDZ	Indicated	5	90	10	181
	BST	HRM	Inferred	13	65	9	181
Kerner Ost	*MUS, BST, ROT	MUS, ROT FDZ only BST FDZ+HRM	Indicated	4.3	73	8	181
Taro	*MUS, BST, ROT	MUS, ROT FDZ only BST FDZ+HRM	Indicated	14.5	73	8	181
Landau Sued	*MUS, BST, ROT	MUS, ROT FDZ only BST FDZ+HRM	Measured	7.4	73	8	181
	BST	FDZ+HRM	Indicated	1.2	90	11	181
Insheim	*MUS, BST, ROT	MUS, ROT FDZ only BST FDZ+HRM	Measured	9	73	8	181
Rift	*MUS, BST, ROT	MUS, ROT FDZ only BST FDZ+HRM	Measured	10.1	73	8	181
	*MUS, BST, ROT	MUS, ROT FDZ only BST FDZ+HRM	Indicated	11.9	73	8	181
Ortenau	*MUS, BST, ROT	FDZ	Indicated	57	73	8	181
	BST	HRM	Inferred	105	73	8	181

Note 1: Mineral Resources are not Ore Reserves and do not have demonstrated economic viability.

Note 2: The weights are reported in metric tonnes (1,000 kg or 2,204.6 lbs). Numbers may not add up due to rounding of the resource value percentages.

Note 3: Reservoir abbreviations: MUS – Muschelkalk Formation, BST – Buntsandstein Group; ROT – Rotliegend Group.

Note 4: To describe the resource in terms of industry standard, a conversion factor of 5.323 is used to convert elemental Li to Li₂CO₃, or Lithium Carbonate Equivalent (LCE).

Note 5: NTG and Phie averages have been weighted to the thickness of the reservoir. These averages are consolidations of multiple local zones and therefore multiplied together will not equate to the global elemental lithium values presented. The elemental lithium values presented are determined separately using detailed data for each zone and then summed together to show a total value for the purposes of this summary table.

Note 6: GRV refers to gross rock volume, also known as the aquifer volume. GRV values presented in this table are

		<p>rounded to the first significant figure for presentation purposes. The elemental lithium values presented are calculated using GRV values that have not been rounded.</p> <p>Note 7: Mineral Resources are considered to have reasonable prospects for eventual economic extraction under current and forecast lithium market pricing used in the DFS with application of Vulcan's DLS processing.</p> <p>Note 8: The values shown are an approximation and with globalised rounding of values in the presented summary table as per JORC guidelines, cannot be multiplied through to achieve the Mineral Resource estimated volumes shown above.</p> <ul style="list-style-type: none"> • The workflow implemented for the calculation of the Vulcan lithium-brine resource estimations included the following steps: <ul style="list-style-type: none"> ○ Based on seismic information, the geometry of the top and bottom surfaces of the Muschelkalk, Buntsandstein, and Rotliegend (where resolvable) were defined. ○ Based on seismic information, the faults within the Muschelkalk, Buntsandstein, and Rotliegend (where resolvable) were defined. ○ A conservative Fault Damage Zone (FDZ) half-width of 200m was defined for all faults based on the average displacement across the faults within the URVBF. ○ Estimation of volumes for applicable matrix bodies (Buntsandstein only) and FDZs within applicable geological units (depending on licence). ○ Identification of applicable Effective Porosity and Net to Gross Values for each of the volumes estimated above. The Effective porosity was based on wireline well log data of three wells within the URVBF (Appenhofen 1, Offenbach GT1, and Brühl GT1) as well as published porosity and permeability core plug measurement data within the URG (see Estimation Methodology section for references). In total, there are over 300 effective porosity measurements from core and outcrop analysis, and over 250 permeability measurements and/or interpretations for the Buntsandstein Group. Data points for the Rotliegend group include 62 core plug porosity measurements, as well as over 550 permeability measurements from core plugs. Porosity versus permeability plots using these data help determine cut-offs for effective fluid flow within reservoirs (Canadian Oil and Gas Evaluation Handbook, 2005; Nelson, 1994) achievable because of the availability of production data from producing geothermal and oil and gas wells within the URVBF (Landau 207, 211, Appenhofen 1, Römerberg A to E). For the Permo-Triassic sediments in the URVBF, a porosity cut-off of 5 %, equivalent to a permeability cut-off of 0.02 mD, is
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		<p>reasonable for significant fluid flow to occur. Net thickness is then determined from this relationship by applying the 5 % effective porosity cut-off to the gross interval thickness. Determination of applicable average lithium concentration (C) for each licence, based on Vulcan's brine sampling and interpretation program. Determination of average grade (C) is discussed under "Data Aggregation" Methods" in Section 2.</p> <ul style="list-style-type: none"> ○ Spreadsheet compilation of all volumes and applicable parameter values, followed by resource calculation, according to the equation noted above. ○ Confirmation of reasonable prospects of eventual economic extraction for the identified resource zones. <ul style="list-style-type: none"> • The current Mineral Resource estimations replace and supersede the previously published estimates for the Insheim, Taro-Lisbeth and Ortenau licences. • The only element being estimated is lithium, and consideration of deleterious elements is beyond the scope of this project and resource estimate. Determination of such factors is dependent on application of specific mineral processing and lithium recovery flowsheet assessments and comprehensive market studies. Based on the lithium extraction piloting that Vulcan has conducted since April 2021, no deleterious elements have been noted which have a materially negative effect on Vulcan's sorption-type lithium extraction process. • In the case of Landau, Insheim and Rift, the extent of the Measured Resource domain was estimated through dynamic modelling of a reasonable, future, full-scale recovery, and injection system. The overall circulation footprint of the system over a 15-year simulation period was used as the outer boundary (footprint) of the Measured Resource domain. This footprint generally conformed with the full spatial extents of the Landau and Insheim licences. In the case of Rift, the circulation footprint was considerably less than the licence extent. Portions of Rift that extend beyond the footprint were defined as Indicated Resource. • The average lithium-in-brine concentration used in the resource estimations is 181 mg/L for the central Phase One licences (plus Ortenau in the south) and more conservatively 153 mg/L for the more northerly licences. Derivations of these two concentrations were previously discussed. • No top cuts or capping upper limits have been applied, or are deemed to be necessary, as confined lithium brine deposits typically do not exhibit the same extreme values as precious metal deposits. This statement is applicable to the Permo-Triassic aquifer Lithium brine data in this study. • A cut-off grade / resource quantity analysis was not strictly applicable to the resource, due to the use of average grade in the static resource estimate. However, it is noted that a grade for economic extraction of 100 mg/L has been established on a provisional basis for the lithium extraction process, and that all resources are currently estimated to exceed that grade.
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Moisture	<ul style="list-style-type: none"> Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content. 	<ul style="list-style-type: none"> Not applicable. The lithium resource in the URVBF is a brine-hosted resource.
Cut-off parameters	<ul style="list-style-type: none"> The basis of the adopted cut-off grade(s) or quality parameters applied. 	<ul style="list-style-type: none"> Cut-off considerations are discussed above.
Mining factors or assumptions	<ul style="list-style-type: none"> Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made. 	<ul style="list-style-type: none"> It is the CPs opinion that geothermal facilities and lithium brine extraction operations represent a feasible co-production opportunity. Vulcan's lithium brine extraction pilot plants in Landau and Insheim (or future commercial operations) are situated after the heat exchanger, and therefore do not influence the geothermal operations of the plant. Any future plants would follow the same approach. Assuming the lithium extraction process causes only small compositional changes to the brine (which has been preliminarily shown in the geochemical data), the lithium-removed brine, as well as any evolved gases, could return to the subsurface aquifer via a reinjection well. Hence, it is assumed both operating interests (geothermal and lithium) are extracting their own commodity of interest with minimal interference between the two processes. It is assumed that Vulcan could drill their own production/re-injection wells at the URVBF licences to expand the existing production in the core of Vulcan's field. The 3D geological models completed for each licence shows there is a high degree of faulting with potential for high fluid flow in the Permo-Triassic strata underlying the URVBF. Dilution from re-injected brine has been factored into the production study on Phase One areas conducted by Vulcan, which shows a 1.6% annual reduction on average over the project life. Since this study was limited to brine modelled within the confines of the license area, and since any potential "recharge effect" from basement rocks was also not modelled, this could prove conservative.
Metallurgical factors or assumptions	<ul style="list-style-type: none"> The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters 	<ul style="list-style-type: none"> Vulcan uses a sorption-type extraction process, similar to commercially operating sorption processes used on salar-type brines in Argentina and China. Because of environmental and meteorological considerations, Vulcan uses geothermal heat, instead of fossil gas and solar evaporation ponds, to drive the sorption process and drive the subsequent concentration of the lithium eluate respectively. It is the opinion of the Mineral Resources CP that the extraction of lithium from salar-type brines using sorption is commercially proven having been used since the 1990s, and the use of sorption on the particular Upper Rhine Valley brine chemistry provides no technical impediment to the same process being applied.

	<p>made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</p>	<ul style="list-style-type: none"> Vulcan's lithium engineering team designed, and has since operated, a lithium extraction pilot plant demonstrating the sorption process on its geothermal brine since April 2021. Vulcan Energy Resources has operated its pilot plant at two existing geothermal operations (Insheim and Landau) since April 2021. The results of this operation back up the assumptions used in Vulcan's feasibility study and provide the basis for assumptions and predictions regarding metallurgical amenability. For Phase One of Vulcan's commercial operation, brine from these two geothermal operations, combined with brine from additional planned geothermal production wells in the vicinity, will feed two lithium extraction plants (LEPs), for a combined 24,000 TPY lithium hydroxide monohydrate (LHM) equivalent capacity.
Environmental factors or assumptions	<ul style="list-style-type: none"> Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made. 	<ul style="list-style-type: none"> German Federal and State policy is targeting net zero power and heating production, and EU policy targets the onshoring and bolstering the sustainability of lithium and other critical raw materials production. It is the opinion of the CP that combined geothermal energy and lithium extraction projects such as Vulcan's Zero Carbon Lithium™ Project have the necessary environmental credentials to enable stakeholder support. Vulcan's process has been designed to be very low waste and circular, in that all brine produced is re-injected into the reservoir, in materially the same state but just with most of the lithium extracted. The surface footprint of planned operations, being geothermal wells and plant, and lithium extraction plants, are very small compared to a traditional mine or salar operations, and sites have been selected to be located on industrial or farming land. It is therefore likely that Vulcan will have a low environmental impact, and in fact will have a net positive effect on the climate by decarbonising the lithium supply chain and energy supply. In the URVBF, induced seismicity is a potential risk which can be caused by injection of brine. The CP notes that mitigation of such risk may be addressed by the following activities, among others: <ul style="list-style-type: none"> Performing regular seismic monitoring, as is currently practiced by Vulcan at its Insheim wells and plant; Reducing production flow rates temporarily if seismicity occurs during the operational phase.
Bulk density	<ul style="list-style-type: none"> Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples. The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences 	<ul style="list-style-type: none"> Bulk density is not applicable, or necessary to be applied, to the liquid, brine-hosted resource. Details of the resource calculations are provided above.

	<p>between rock and alteration zones within the deposit.</p> <ul style="list-style-type: none"> Discuss assumptions for bulk density estimates used in the evaluation process of the different materials. 	
Classification	<ul style="list-style-type: none"> The basis for the classification of the Mineral Resources into varying confidence categories. Whether appropriate account has been taken of all relevant factors (i.e., relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). Whether the result appropriately reflects the Competent Person's view of the deposit. 	<ul style="list-style-type: none"> The Vulcan URVBF lithium brine project has reasonable prospects for economic extraction based on aquifer geometry, delineation of fault zones using re-interpreted 2D and 3D seismic data, brine volume, brine composition, hydrogeological characterization, porosity, fluid flow, and the advancement of Vulcan's lithium sorption technology and subsequent testwork through their pilot plants through thousands of hours of continuous processing data. The updated URVBF lithium brine Mineral Resource estimations are classified as Measured, Indicated and Inferred Mineral Resources, depending on location and availability of data. Pertinent points to support a Measured and Indicated Mineral Resource classification within the producing core of the Upper Rhine Valley Brine Field, and Indicated classification within the wider fault damage zones include: 1) a greater level of confidence in the subsurface geological model due to Vulcan's acquisition of detailed 2D and 3D seismic data, 2) acquisition of a detailed downhole geophysical dataset to analyse the hydrogeological characteristics of a fault-associated fracture zone within a geothermal well, and 3) knowledge of Vulcan's commissioned lithium absorption mineral processing testwork and results, following thousands of hours of testwork conducted over the course of nearly two years, 4) Vulcan's acquisition of production/re-injection wells in the core of the field at Insheim, and agreement to access other production/re-injection wells at the neighbouring Landau geothermal plant, which has resulted in hundreds of additional analyses from live geothermal brine, and 5) Vulcan's integration of extensive reservoir production simulation into its models. The URVBF Inferred Mineral Resource includes Buntsandstein Group, plus Rotliegend Group and Muschelkalk Group, where applicable. The lithium-brine Technical Report supporting the current Mineral Resource estimate has been prepared by a multi-disciplinary team that include geologists, hydrogeologists, geothermal specialists, and chemical engineers with relevant experience in Permo-Triassic and other brine geology/hydrogeology and lithium brine processing environments. There is collective agreement that the Vulcan project has reasonable prospects for economic extraction at current and forecast lithium market pricing levels. Technical Report co-authors M. King, P. Geo., and Kim Mohler, P. Eng., take joint responsibility for this statement, as Mineral Resources and Engineering CPs, respectively.
Audits or reviews.	<ul style="list-style-type: none"> The results of any audits or reviews of Mineral Resource estimates. 	<ul style="list-style-type: none"> Vulcan's URVBF lithium brine project consists of one field with numerous project areas at various stages of development. Current resource estimation methodologies have been compared to past

		estimation methods utilised by APEX Geoscience Ltd. (APEX) to support the 2019 and 2020 mineral resource estimations prepared for Vulcan.
Discussion of relative accuracy/ confidence	<ul style="list-style-type: none"> Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate. The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available. 	<ul style="list-style-type: none"> In the opinion of the Mineral Resources CP, the URVBF Measured, indicated and Inferred lithium brine Mineral Resource estimations are reasonable for the Permo-Triassic aquifer within the Vulcan URVBF licences. Risks and uncertainties as they pertain to the lithium brine Mineral Resource estimate include: <ul style="list-style-type: none"> Risks and uncertainties associated with deep geothermal brine exploration are linked to the relative lack of deep well data, due to the high cost of deep well drilling. Whilst this is a lower risk in the core of the field where Vulcan has production and re-injection wells already, stepping out to the north and the south there are licenses which rely on off-property well data. Any new wells that are installed in the Permo-Triassic strata at Vulcan's URVBF licences will play a major role in future Mineral Resource updates. As exploration continues, incorporation of associated results will reduce inherent Mineral Resource uncertainty and project risk. The reader should be aware that the reality of any geothermal or lithium brine recovery program is that the extent of brine recovery from the resource estimate zone will be a function of the design of the recovery/reinjection system and the connectivity of the subsurface brine zones. To some extent, it will not be feasible to capture all brine from the subsurface strata included in the resource estimate. The planned brine production system will be based on doublets of recovery and reinjection wells. It is noted that dilution factors caused by injecting the spent brine into the hydraulic system could influence the operational timeline of a given well doublet, beyond the extent to which already modelled. Localized high permeabilities can lead to channelling effects such that the geothermal reservoir potentially becomes inefficient in terms of capturing brine from a broader zone. Thus, the exploitation of fault zones can constitute a trade-off between high permeability and reduced reservoir volumes.

Section 4: Estimation and Reporting of Ore Reserves

Criteria	JORC Code Explanation	Commentary
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Mineral Resource estimate for conversion to Ore Reserves	<ul style="list-style-type: none"> Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve. Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves. 	<ul style="list-style-type: none"> The Mineral Resource estimate was undertaken by the Mineral Resources CP as outlined in Section 3 above and takes into account the reasonable potential for eventual extraction, based on aquifer geometry, delineation of fault zones using re-interpreted 2-D and 3-D seismic data, brine volume, brine composition, hydrogeological characterization, porosity, fluid flow, and the advancement of Vulcan's lithium sorption technology and subsequent test runs through their pilot plants. The Mineral Reserve estimate was undertaken by the Mineral Reserves CP as outlined in this section. Probable Ore Reserves are defined based on the Indicated Mineral Resources, with the Resources in question in the Indicated Category, as required by the JORC Code. Proven Ore Reserves are defined based on the Measured Mineral Resources for Lionheart, as required by the JORC Code. All Mineral Resources are reported inclusive of Ore Reserves.
Site visits	<ul style="list-style-type: none"> Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	<ul style="list-style-type: none"> The Mineral Reserves CP conducted a site visit on November 8-10, 2022. The visit included the Insheim geothermal plant, and the Landau geothermal plant which are operational. The site visit included 3D seismic operations while running Vibroseis equipment in the Insheim area. The site visit included the Vulcan corporate offices in Karlsruhe to interview Vulcan staff responsible for all aspects of the project to review the dynamic flow modelling, field development plans, drilling plans, geothermal and lithium process engineering design, infrastructure design, regulatory, environmental, costs, economics, marketing, and communications plans.
Study status	<ul style="list-style-type: none"> The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves. The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered. 	<ul style="list-style-type: none"> A Definitive Feasibility Study (DFS) has been completed by Vulcan for the Zero Carbon Lithium™ Project within the Phase One licence areas, constituting the Lionheart and Taro areas, in January 2023. A Pre-Feasibility Study (PFS) was previously completed in January 2021, for Taro-Lisbeth and Ortenau licences which reported Probable Mineral Ore Reserves for both licenses in the amount of 0.42 Mt LCE for Taro and 0.70 Mt LCE for Ortenau as derived from Indicated Mineral Resources. Taro has now been revised as part of the Phase One DFS, and Ortenau will be revised as part of ongoing feasibility studies. 2021 PFS figures related to Phase Two should be treated with caution until they are updated with more recent parameters as per Phase One. The DFS has defined field development plans for both Lionheart and Taro-Lisbeth districts which are based on dynamic flow modelling linked to the geologic models. An iterative approach was taken to define optimal well placement. A well network has been defined for each district which includes 18 wells at Lionheart (includes 2 existing doublets, so 14 new wells) and 9 wells at Taro-Lisbeth. The modifying factors have been tested at several pilots and have high level of certainty with technical and economic viability.
Cut-off parameters	The basis of the cut-off grade(s) or quality parameters applied.	<ul style="list-style-type: none"> A cut-off of 100mg/L Li has been applied to the production forecasts used in the field development plans. Dilution from the original 181 mg/l Li concentration is included in the forecasts with economic cut-off assumed at 100 mg/l Li.

<p>Mining factors or assumptions</p>	<ul style="list-style-type: none"> • The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e., either by application of appropriate factors by optimization or by preliminary or detailed design). • The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc. • The assumptions made regarding geotechnical parameters (e.g., pit slopes, stope sizes, etc), grade control and pre-production drilling. • The major assumptions made, and Mineral Resource model used for pit and stope optimization (if appropriate). • The mining dilution factors used. • The mining recovery factors used. • Any minimum mining widths used. • The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion. • The infrastructure requirements of the selected mining methods. 	<ul style="list-style-type: none"> • Indicated Mineral Ore Resources from the Taro licences are converted to Probable Mineral Ore Reserves, based on the results of the DFS and consideration of the modifying factors identified in the DFS. The results of the pilot tests for lithium extraction and electrolysis for conversion of LiCl to LHM have been taken into consideration in the DFS level detailed design. • Measured Mineral Ore Resources from the Lionheart licences are converted to Prove Mineral Ore Reserves, based on the results of the DFS and consideration of the modifying factors identified in the DFS. The results of the pilot tests for lithium extraction and electrolysis for conversion of LiCl to LHM have been taken into consideration in the DFS level detailed design. • The mining method is dictated by the deposit type, in which brine is hosted in pore spaces between grains of sediments and within natural faults and fractures. Deep wells are installed to allow for production of lithium enriched geothermal brine from the reservoir fault systems to the wells utilizing a pumping system to overcome hydraulic head. The lithium depleted brine is then reinjected back to the reservoir through injection wells. • There is no open pit or underground excavation (because the brine is pumped out from wells) and no geotechnical parameters are directly measured. The future change of lithium concentration in wells will be monitored as part of the future monitoring and pumping activities. • No brine recharge has been factored into this study due to the nature of the deep brine resource and the stage of the project. This will be monitored when production starts in the future. • The mining recovery conversion from Resources to Reserves is typical of results for lithium brine operations, taking account of losses/recoveries through the recovery method and production plant. The lithium recovery estimated for the DFS lithium extraction process design vary over the project life as lithium concentrations vary but the average recovery is 93.9% of the produced lithium production. • Minimum mining widths are not relevant in the context of this Vulcan Project as there is no open pit mine. • Inferred Resources are not considered for the purposes of the production plan and Reserves for the Lionheart and Taro Phase One districts. • The infrastructure required for brine extraction is the establishment of the proposed well network, multi-well pads, pipeline and power infrastructure, ORC plants, LEP surface facilities, and CLP surface facility.
<ul style="list-style-type: none"> • Metallurgical factors or assumptions 	<ul style="list-style-type: none"> • The metallurgical process proposed and the appropriateness of that process to the style of mineralization. • Whether the metallurgical process is well-tested technology or novel in nature. • The nature, amount and representativeness of 	<ul style="list-style-type: none"> • The metallurgical process proposed is Direct Lithium Sorption (DLS), using a sorbent-based extraction method, which is a proven technology for lithium extraction as used by several producers worldwide, including in Argentina and China. • The lithium chloride (LiCl) produced from the Lithium Extraction Plant (LEP) is then converted to battery grade lithium hydroxide monohydrate (LHM) at the Central Lithium Plant (CLP). The majority of the proposed equipment is in use in either lithium sorption projects or in the chlor-alkali industry, although the specific sorbent used as a basis for this study, as well as the

	<p>metallurgical testwork undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.</p> <ul style="list-style-type: none"> Any assumptions or allowances made for deleterious elements. The existence of any bulk sample or pilot scale testwork and the degree to which such samples are considered representative of the orebody as a whole. For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications? 	<p>specific electrolysis technology, is not in commercial use at this time for the exact same processes using Upper Rhine Valley brines. These technologies are considered appropriate for the production of LHM based on current testwork and the further testwork planned to incorporate into the development plan and engineering design.</p> <ul style="list-style-type: none"> Vulcan has conducted thousands of hours of piloting test work with its pilot plant on the Upper Rhine Valley Brine, since April 2021. Substantial metallurgical testwork was carried out with bulk brine samples at vendors, independent laboratories, and Vulcan's laboratory and is considered appropriate for DFS indications of performance to support the Vulcan Project. Further testwork is planned at the soon to be operational Demo Plant, and continued testing at the existing pilots, which will provide inputs to the next stage of bridging engineering design. Vulcan has undertaken a Value Improvement Process with Hatch to identify and incorporate improvements to the design, which is expected to improve operational performance and economics. Samples of the raw geothermal brine at the pilot plant in Insheim were sent for analysis by Inductively Couple Plasma-Optical Emission Spectroscopy (ICP-OES) and Ion Chromatography (IC) at the Vulcan laboratory in Durlach, on a frequent basis. With this data and other historical test data, it shows no significant variation in lithium grade. Similar findings were determined for Landau. Testwork on the pre-treatment of brine was previously carried out by IBZ-SALZChemie, supervised by Vulcan's chemical engineering team. Further investigations have been conducted by Vulcan at its own laboratory based on samples from the pilot plant. Pre-treatment tested removal of silica, impurities, and CO₂. Vulcan has since conducted test work on a pressurised pilot, P1A, which has shown that pre-treatment will not be necessary prior to sorption. This design improvement will be incorporated into the design in the next stage of bridging engineering design. Sorbent testing was conducted by Vulcan at the pilot plant and laboratory with a number of commercially available sorbents being tested. Vulcan has conducted substantial testing and optimizations to define a sorbent that will be best for their future operations. Vulcan has selected its own internally made sorbent, VULSORB™, as the most optimal for commercial use. Further tests are planned at the Demo Plant which is upscaled from the pilot plant. Testwork was conducted for the conversion of LiCl to LHM, by Electrosynthesis Co. Inc., USA in 2022. The test was conducted on a small scale using the LiCl product from the pilot plant and proved successful. A scaled demonstration plant is planned to further test the conversion processes to aid in the final design of the CLP. It is expected to be operational in 2023.
<ul style="list-style-type: none"> Environmental 	<ul style="list-style-type: none"> The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterization and the 	<ul style="list-style-type: none"> No waste rock characterization studies are needed, due to the well-type of lithium brine extraction method proposed. Consideration has been given to local environmental and social restrictions when planning the well sites, infrastructure, and surface facilities.

	<p>consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.</p>	<ul style="list-style-type: none"> Environmental assessments have been undertaken as applicable for various activities like 3D seismic and drilling and are embedded as part of the permitting processes for Phase One. Vulcan is proactive in following the permitting process early and ensuring environmental protection requirements are considered in the project design. Vulcan has been granted preliminary EIA approval, meaning that no full EIA is required, for its planned development wells in the Taro-Lisbeth region. Similar approval is expected for wells in the Lionheart region shortly. Vulcan is in the process of obtaining the necessary permits, including building permits, for its process plants, in accordance with normal regulatory timelines.
<ul style="list-style-type: none"> Infrastructure 	<ul style="list-style-type: none"> The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided or accessed. 	<ul style="list-style-type: none"> The Vulcan Project is in the Upper Rhine Valley, which is an area extremely well serviced by infrastructure for roads, rail, waterways, and power. There is a large availability of highly skilled labour and accommodations throughout the development areas to support the Vulcan project development. The decentralised project structure results in special requirements for the transport logistics from the production sites to the LEP, from both raw material suppliers to the LEP and CLP as well as from the LEP to the CLP. Vulcan is planning to use an Interconnecting Pipeline and Power system (ICPP). There will be an ICPP in the Lionheart project complex and a separate ICPP in the Taro project area. The LiCl product from the LEP will be transported by regular road transport to the CLP.
<ul style="list-style-type: none"> Costs 	<ul style="list-style-type: none"> The derivation of, or assumptions made, regarding projected capital costs in the study. The methodology used to estimate operating costs. Allowances made for the content of deleterious elements. The source of exchange rates used in the study. Derivation of transportation charges. The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc. The allowances made for royalties payable, both Government and private. 	<ul style="list-style-type: none"> The DFS has used costs based on a detailed cost analysis by Hatch, Turboden, VEE and VER estimates. The capital costs have taken into consideration the current supply chain challenges and higher than typical costs, plus contingency has been included in the estimates. Vulcan has estimated the Owners capital costs. Labour rates were established in accordance with labour agreement information and basic wage data obtained for other similar projects in Germany/Europe. Operating costs were estimated by Hatch for most of the operational processes except the wells and ORC power plant, which have been defined by Vulcan and Turboden. Electricity prices and chemical prices correspond to expected costs for products delivered at the project's location. The process requires the removal of deleterious elements to specifications for the final high-quality product and has been considered in the estimation of costs. A lithium market study was conducted by experienced industry analyst Fastmarkets in 2022. As well trade statistics were collected and collated by Vulcan's in-house lithium market expert, Vincent Ledoux Pedailles. All costs were estimated in Euros. Prices for lithium hydroxide considered in the economic evaluation, correspond to CIF Europe prices, with all cost items necessary to transport produced lithium hydroxide to European

		<p>markets included in the operations costs. These costs include trucking the lithium hydroxide to cathode plants, which are the expected destinations for this product.</p> <ul style="list-style-type: none"> • Vulcan has 5 existing offtake contract agreements and has taken the pricing for these contracts into consideration in the economic analysis. • Since no lithium production currently exists in Germany, royalty rates, if any, will need to be discussed with the state Mining Authority, and have been provisionally set at zero, based on Section 32-2 of the German Mining Law, which allows for an exemption of royalties, given Vulcan would be “ensuring a supply of raw materials to the market, for improving the utilization of deposits or for protecting any other national economic interests”. This is also consistent with the project as a geothermal project, which is also exempt from mining royalties.
<ul style="list-style-type: none"> • Revenue factors 	<ul style="list-style-type: none"> • The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc. • The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products. 	<ul style="list-style-type: none"> • The head grade has been determined by the resource model which has been developed for the Vulcan Project and is based on regional drilling, geochemistry and seismic data, which was used to produce the Indicated and Measured Resources for Phase One. • Commodity prices are based on forward estimates by experienced industry consultants Fastmarkets and offtake agreement pricing. • All costs were estimated in Euros. For lithium pricing, a Euro-USD conversion rate of 1.05 has been used in calculations. • Transportation costs are included in the estimation of operating costs. The operating costs include all aspects of the process from brine production from the wells, the ORC plants, the LEPs, and the CLP, plus transportation between the sites. • No allowances for by-product credits, except for HCl, NaCl, and district heating are considered. • Renewable energy produced by the geothermal plants is assumed to be sold into the grid at a fixed feed in tariff rate of €0.252 per kWh, in accordance with the German Renewable Energy Law. It is assumed that the Vulcan operations will sell the geothermal renewable power produced and have to acquire renewable power from the grid. The power pricing is assumed based on Aurora Energy Research power price forecast where prices do not exceed the fee in tariff.
<ul style="list-style-type: none"> • Market assessment 	<ul style="list-style-type: none"> • The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future. • A customer and competitor analysis along with the identification of likely market windows for the product. • Price and volume forecasts and the basis for these forecasts. • For industrial minerals the customer specification, testing and acceptance 	<ul style="list-style-type: none"> • The Company is well placed to benefit from the market window caused by the significant increase in demand related to electric vehicle uptake in Europe. • Vulcan contracted Fastmarkets to conduct a lithium supply study which included supply, demand, and pricing outlooks. Fastmarkets concluded that Vulcan is strategically well positioned to benefit from the increasing demand for lithium in Europe. DLS production in conjunction with geothermal power is a solution that makes sound economic and environmental sense. • Some weaknesses and threats were identified by Fastmarkets for the lithium market, but none were specific to Vulcan’s project, and they are more than offset by the strengths and opportunities that the project’s strategy offers. • The Company is well placed on the cost curve, and plans to produce a final battery grade product, unlike many hard rock competitor companies. The Vulcan Project is forecast to fall in the

	requirements prior to a supply contract.	<p>lower part of the cost curve, being competitive with other existing and forecasted new lithium projects.</p> <ul style="list-style-type: none"> • Fastmarkets average annual prices for lithium hydroxide used in the economic model are €30,283/t LHM realised price, which is taking into consideration the pricing mechanisms concluded by Vulcan with its offtakers. • The pricing model used in the economics also combined the Fastmarkets analysis with the offtake agreement pricing. Vulcan holds 5 offtake agreements with Umicore, Renault, Stellantis, Volkswagen, and LG Energy Solution. • The Vulcan Project is expected to produce battery quality lithium hydroxide monohydrate (LHM), to the specifications of European cathode manufacturers.
• Economic	<ul style="list-style-type: none"> • The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc. • NPV ranges and sensitivity to variations in the significant assumptions and inputs. 	<ul style="list-style-type: none"> • Vulcan conducted a DFS level economic analysis using its own financial model with consideration for various business structures, referred to as SPVs (Special Purpose Vehicles). • The SPV1 is the equipment and processes associated with Lionheart and Taro licences in Phase One for wells, ICPP and ORCs. The SPV2 is the LEP and SPV 3 is the CLP. • Mining industry practitioners typically undertake financial modelling using real NPV terms, projecting constant costs and metal prices in real terms. The resultant cash flows are then discounted by a real risk-adjusted discount rate. Vulcan conformed with this practice. • A discount rate of 8% was applied to the cashflow in line with the industry average for lithium assets. • Sensitivity analyses were conducted to evaluate the LHM prices, exchange rates, OPEX, and CAPEX. The Vulcan Project is generally resilient to most major factors and is most sensitive to lithium pricing. • The economic evaluation was based on the brine flow rates from the production forecast which include dilution of lithium concentrations over time. The LHM production rate after ramp-up is assumed to peak at 23,737 tpy LHM and reduce to 17,590 tpy LHM by 2045, due to dilution effects.
• Social	<ul style="list-style-type: none"> • The status of agreements with key stakeholders and matters leading to social license to operate. 	<ul style="list-style-type: none"> • Vulcan's Communications team has commenced engagement and consultation at local, state and federal levels. They have an extensive communications strategy utilizing multiple communication tools such as social media, open houses, mailings, call centre, etc. • Vulcan has a heat offtake agreement to supply renewable heat to the local community in the Mannheim area and is in discussions to do the same in the Phase One areas. • Vulcan has installed information centres on the Insheim site, in Landau, Durlach and Mannheim.
• Other	<ul style="list-style-type: none"> • To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: 	<ul style="list-style-type: none"> • The DFS has identified a number of risk factors, both related to the natural environment and other aspects of the Vulcan Project. The natural risks identified are considered to be manageable, assisted by the extensive experience of the Vulcan team in historical development of geothermal projects in the Upper Rhine Valley.

	<ul style="list-style-type: none"> Any identified material naturally occurring risks. The status of material legal agreements and marketing arrangements. The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent 	<ul style="list-style-type: none"> Material legal agreements are understood to be in good standing. The properties are granted exploration licenses and production licences at Insheim. Vulcan holds the rights to geothermal energy, brine and lithium in the Phase One areas either directly or through third party agreements. Vulcan has signed onto 5 offtake agreements for LHM product sales. Preliminary EIAs have been approved, negating the need for full EIAs, for some drilling sites in the Phase One area. Permit applications for production/re-injection drilling sites are in process of preparation or have been submitted and are waiting on approvals. The permit applications for facility construction and operation are in preparation. Permits have been approved for the 3D seismic program at Insheim and Mannheim. Whilst there can be no assurance that Vulcan will obtain all the permits it needs on time or at all, no reason is known of by the Company to expect delays to permit approvals based on the consultation that Vulcan has conducted with the regulatory agencies, local communities and other stakeholders. There are therefore reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the DFS. This is further bolstered by the imperative from the German Federal and State governments for decarbonisation of energy, and from the European Union for onshoring of sustainable critical raw materials production, in particular lithium as announced as part of the EU Green Deal Industrial Plan.
<ul style="list-style-type: none"> Classification 	<ul style="list-style-type: none"> The basis for the classification of the Ore Reserves into varying confidence categories. Whether the result appropriately reflects the Competent Person's view of the deposit. The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any). 	<ul style="list-style-type: none"> The Mineral Reserves CP is of the opinion that Vulcan has conducted sufficient geologic and reservoir engineering work, and mineral processing testwork to provide a high level of certainty for the modifying factors so that for Lionheart, Mineral Ore Reserves are estimated for Proved and Probable classifications. With Lionheart having existing brine production from the Insheim and Landau wells, and the pilot tests conducted at Insheim and Landau, there is historical data available to show consistency with the lithium concentration used for the mineral reserves of 181 mg/l Li. The Mineral Reserves estimates are taken from the Reference Point of the Wellhead or inlet to the LEP. The Mineral Reserves estimate for Lionheart is Proved at 196 kt LCE, and Probable at 154 kt LCE. The Mineral Reserves for Lionheart are derived from the Measured Mineral Resource mass estimated per Section 3 of this Table 1 of 1939 kt LCE. This includes the licences in Insheim, Rift and Landau. For Taro-Lisbeth and Kerner, with no existing wells, but with proximity to Lionheart and application of the same modifying factors, Mineral Reserves are estimated in the Probable classification. The Mineral Reserves estimate for Taro-Lisbeth is Probable at 189 kt LCE. This is derived from the Indicated Mineral Resource mass of 1618 kt LCE which is for the licences of Taro-Lisbeth and Kerner Ost.

		<ul style="list-style-type: none"> The Mineral Reserves estimate for Taro-Lisbeth in the DFS is lower than the one reported in January 2021 for the PFS due to less wells in the DFS development plan, inclusion of dilution of lithium concentration over time and an economic limit of 100 mg/l Li applied to the forecast. In the PFS of 2021, Mineral Reserves for Ortenau in the Probable classification were attributed as 700kt LCE. This was used using simpler, less refined methodologies in the PFS, and the Ortenau Mineral Reserves will be reviewed and revised as part of ongoing feasibility studies, and until this is completed, PFS Phase Two numbers should be treated with appropriate caution.
<ul style="list-style-type: none"> Audits or reviews 	<ul style="list-style-type: none"> The results of any audits or reviews of Ore Reserve estimates. 	<ul style="list-style-type: none"> The Reserves have been independently reviewed by GLJ Ltd., who provided the Competent Person sign-off of production forecasts and mineral reserves estimates.
<ul style="list-style-type: none"> Discussion of relative accuracy/ confidence 	<ul style="list-style-type: none"> Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate. The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage. It is recognized 	<ul style="list-style-type: none"> The Proved and Probable Mineral Reserve estimations reported for the DFS are considered to have a reasonable level of confidence based on the quality of data and testwork collected. These data were interpreted by a technical team with local and international experience and expertise. This team also defined the field development plan and process engineering design. This level of confidence is further supported by the continuity of mineralization, the geologic characterization, and the demonstration that lithium enriched brine can be pumped from deep wells in the Upper Rhine Valley and that lithium can be economically recovered and converted to battery grade LHM. Modifying factors include, but are not limited to, well design and production plan, geothermal production, mineral processing, metallurgical testing, infrastructure design, surface facility design, marketing plan, economic, legal, environmental, social, and government factors. The pilot tests have provided sufficient testwork results that the CP has a high level of confidence in the DFS design and expected results for the project. Improvements to the design are planned to be incorporated based on further testwork and the scaled-up demonstration plants coming on stream in 2023, as part of the bridging engineering phase. The permitting of the Vulcan Project by the government, which requires relevant environmental approvals depending on each location and site use, is a modifying factor. It is considered as a potential risk to the schedule, but based on information from the Company, the CPs have reason to believe that there is a reasonable probability for full approvals to meet the schedule start date. The CP's have relied on data provided by Vulcan and supporting third parties. The accuracy of any Mineral Resources or Reserves estimate is a function of the quality and quantity of available data and of geologic and engineering interpretation and judgment. While Mineral Resources and Reserves and production estimates presented herein are considered reasonable, the estimates should be accepted with the understanding that reservoir performance subsequent to the date of the estimate may justify revision, either upward or downward. The metallurgical basis for the process engineering design and the design parameters and related costs, were relied upon by the CP

	<p>that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</p>	<p>as provided by Vulcan and third-party contractors. As the Project moves to the bridging phase and design optimization and potential revisions are undertaken, it is possible that design specifications described in the DFS report will be subject to change and the costs related to these changes will affect the reported economic results.</p> <ul style="list-style-type: none"> Revenue projections presented in the DFS report are based in part on forecasts of market prices, currency exchange rates, inflation, market demand and government policy which are subject to many uncertainties and may, in future, differ materially from the forecasts utilized herein. Present values of revenues documented in the DFS report do not necessarily represent the fair market value of the reserves evaluated herein.
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