





FUTURE ENERGY, TODAY

REPLACEMENT PROSPECTUS INITIAL PUBLIC OFFERING

For the offer of CDIs at an issue price of \$0.80 per CDI to raise a minimum of \$5 million with the right to accept oversubscriptions up to a further \$5 million

The Replacement Prospectus is an important document and should be read in its entirety. Please consult your professional adviser if you have any questions about this document. Investment in the CDIs offered pursuant to this Prospectus should be regarded as highly speculative in nature.

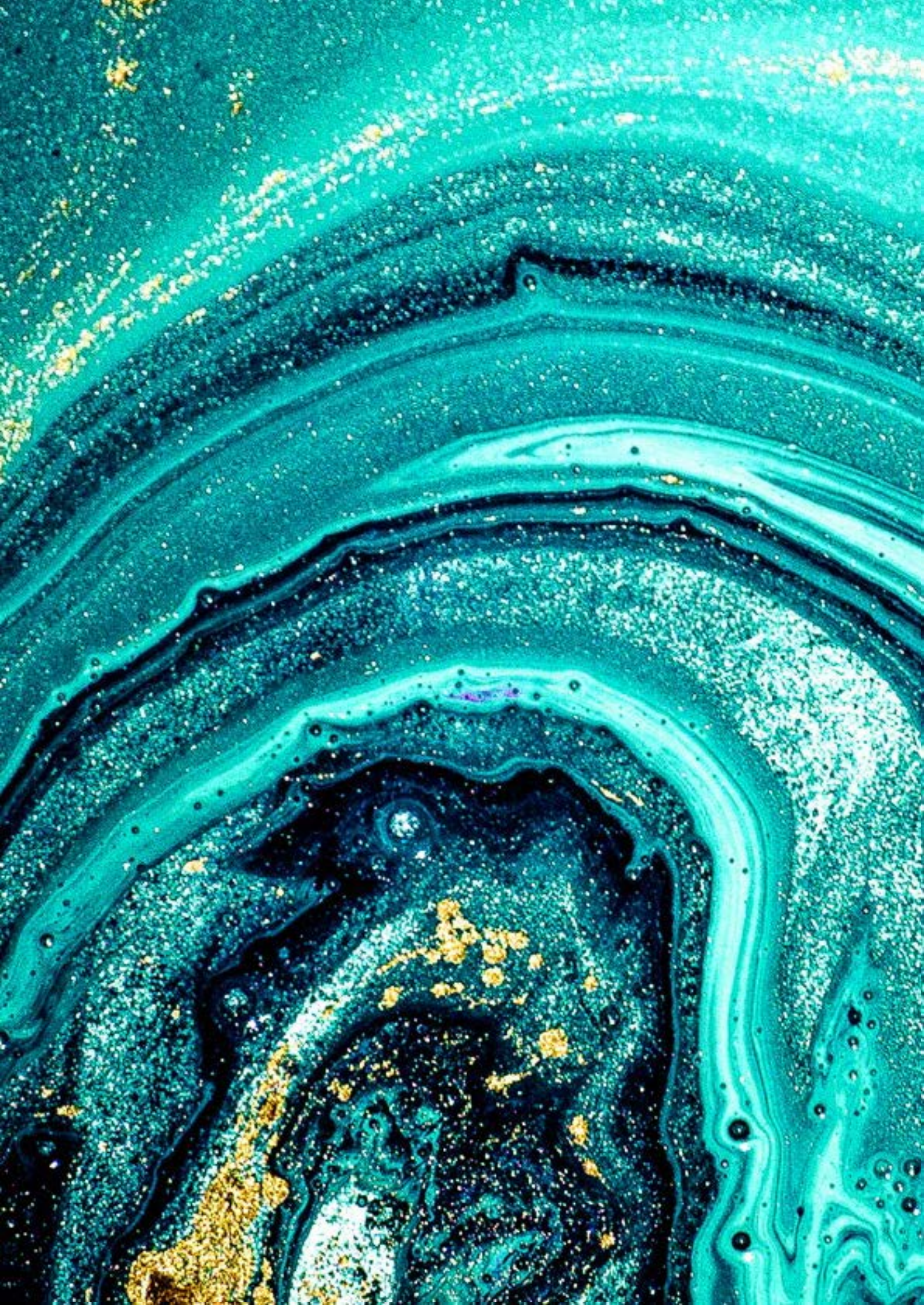


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IMPORTANT INFORMATION

Offer

The Offer contained in this Replacement Prospectus is an invitation to acquire CHESS Depository Interests (CDIs) over ordinary Securities in Renergen Limited (Registration number: 2014/195093/06; ABN 93 998 352 675), a company incorporated in South Africa (Renergen or Company).

This Replacement Prospectus is issued by Renergen and is dated 8 May 2019. A copy of this Replacement Prospectus was lodged with ASIC on 8 May 2019. This Replacement Prospectus replaces the original Prospectus, which was dated 23 April 2019 and was lodged with ASIC on that day.

Neither ASIC nor the ASX takes any responsibility for the content of this Replacement Prospectus or the merits of the investment to which this Prospectus relates.

This Replacement Prospectus differs from the original Prospectus.

The Company applied to the ASX within 7 days following the date of the original Prospectus for official quotation by ASX of the CDIs offered by the Replacement Prospectus. No securities will be issued on the basis of this Replacement Prospectus later than 12 months after the date of the original Prospectus.

Lodgement and Listing

This Prospectus is dated 8 May 2019 and a copy of this Prospectus was lodged with ASIC on that date.

None of ASIC, ASX or any of their officers take any responsibility for the contents of this Prospectus or the merits of the investment to which this Prospectus relates.

Expiry date

No securities will be issued or sold on the basis of this Prospectus later than 13 months after the Prospectus Date.

Note to Applicants

The information in this Prospectus is not financial product advice and does not take into account the investment objectives, financial situation or particular needs (including financial and tax issues) of any prospective investor.

It is important that you read this Prospectus in its entirety before deciding whether to invest in the Company. In particular, in considering the prospects of the Company, you should consider the risk factors that could affect the performance of the Company. You should consider these risks in light of your investment objectives, financial situation and particular needs (including financial and tax issues). Investment in the CDIs offered under this Prospectus must be regarded as speculative. Some of the risk factors that should be considered by prospective investors are set out in Sections 1.4 and 7. There may also be risk factors in addition to these that should be considered in light of your personal circumstances.

If you do not fully understand this Prospectus or are in doubt as to how to deal with it, you should seek professional guidance from your stockbroker, solicitor, accountant or other professional adviser before deciding whether to invest in the CDIs.

Exposure Period

The Corporations Act prohibits the Company from processing applications to subscribe for CDIs under this Prospectus (**Application**) during the period after the Prospectus Date up to 7 May 2019 (Exposure Period).

Applications received during the Exposure Period will not be processed until after the expiry of the Exposure Period. No preference will be conferred on Applications received during the Exposure Period.

Photographs and diagrams

Photographs used in this Prospectus that do not have any description are for illustration only and should not be interpreted to mean that any person shown in them endorses this Prospectus or its contents or that the assets shown in them are owned by the Company.

Diagrams used in this Prospectus are illustrative only and may not be drawn to scale. Unless otherwise stated, all data contained in charts, graphs and tables is based on information available as at the Prospectus Date.

Disclaimer and forward-looking statements

No person is authorised to give any information or to make any representation in connection with the Offer described in this Prospectus which is not contained in this Prospectus. Any information not so contained may not be relied upon as having been authorised by the Company, its Directors or any other person in connection with the Offer. You should rely only on information contained in this Prospectus. Except as required by law and only to the extent required, no person named in this Prospectus, nor any other person, warrants or guarantees the future performance of the Company, repayment of capital by the Company or any return on any investment made pursuant to this Prospectus.

This Prospectus may contain forward-looking statements concerning the Company's business, operations, financial performance and condition as well as the Company's plans, objectives and expectations for its business, operations and financial performance and condition. Any statements contained in this Prospectus that are not of historical facts may be deemed to be forward-looking statements. You can identify these statements by words such as "aim", "anticipate", "assume", "believe", "could", "due", "estimate", "expect", "goal", "intend", "may", "objective", "plan", "predict", "potential", "positioned", "should", "target", "will", "would" and other similar expressions that are predictions of or indicate future events and future trends.

These forward-looking statements are based on current expectations, estimates, forecasts and projections about the Company's business and the industry in which the Company operates and management's beliefs and assumptions. These forward-looking statements are not guarantees of future performance or development and involve known and unknown risks, uncertainties, assumptions and other important factors, many of which are beyond the control of the Company, the Directors and management. Except to the extent required by law, the Company cannot and does not give any assurance that the results, performance or achievements expressed or implied by the forward-looking statements contained in this Prospectus will actually occur and investors are cautioned not to place undue reliance on these forward-looking statements.

Potential investors and other readers are urged to consider these factors carefully in evaluating the forward-looking statements. These forward-looking statements speak only as at the Prospectus Date.

The Company has no intention to update or revise forward-looking statements, or to publish prospective financial information in the future, regardless of whether new information, future events or any other factors that affect the information contained in this Prospectus, other than to the extent required by law.

The Prospectus, including the reports in Sections 3, 4 and 5, uses market data, estimates, industry forecasts and projections. There is no assurance that any of the forecasts referred to in this Prospectus will be achieved. The Expert Reports also include estimates and information based on survey results, which may not be representative of the subject matter of the survey. The Company has not independently verified this information. Estimates involve risks and uncertainties and are subject to change based on various factors, including the risk factors in Sections 1.4 and 7.

Industry Data

This Prospectus contains industry data and forecasts that were obtained from industry publications, opinions, market data, third-party market research and publicly available information. These publications may state or imply that the information contained in them has been obtained from sources believed to be reliable, but the Company has not independently verified the accuracy or completeness of such information. There is no assurance that any of this information will be achieved. These matters involve risks and uncertainties and are subject to change based on various factors, including those discussed in Sections 1.4 and 7.

Statement of past performance

This Prospectus includes information regarding past performance of the Company. Investors should be aware that past performance is not indicative of future performance.

Financial information presentation

All financial amounts contained in this Prospectus are expressed in South African Rand (**ZAR**) or Australian dollars (**\$**), unless otherwise stated. Where an amount is expressed in this Prospectus in \$ and ZAR, the conversion is based on the indicative exchange rate of \$1.00:ZAR10.56. The amount when expressed in \$ or ZAR may change as a result of fluctuations in the exchange rate between the two currencies. Where an amount is expressed in this Prospectus in \$ and US\$, the conversion is based on the indicative exchange rate of \$1.00:US\$0.71.

Any discrepancies between totals and sums of components in figures and tables contained in this Prospectus are due to rounding.

Section 9 sets out in detail the financial information referred to in this Prospectus and the basis of preparation of that information.

All references to FY2017 and FY2018 appearing in this Prospectus are to the 12 months ended 28 February 2017 and 12 months ended 28 February 2018, respectively, unless otherwise indicated. HY2019 refers to the six month period ended 31 August 2018. HY2018 refers to the comparative 6 month period ended 31 August 2017.

The Historical Financial Information included in this Prospectus has been prepared and presented in accordance with IFRS, and should be read in conjunction with, and are qualified by reference to, the information contained in Section 9.

Forecast financial information

Mining and exploration is inherently uncertain. Consequently, there are significant uncertainties associated with forecasting future revenues and expenses of the Company. On this basis, and after considering ASIC Regulatory Guide 170, the Directors believe that reliable financial forecasts for the Company cannot be prepared, and accordingly, financial forecasts have not been included in this Prospectus.

Qualified Reserves and Resources Evaluator's Statement

The resource estimates contained in this Prospectus are consistent with the definitions of hydrocarbon reserves and resources as defined in the ASX Listing Rules and are classified in accordance with the Petroleum Resources Management System (2007) and Guidelines for the Application of Petroleum Resources Management System (2011) as approved by the Society of Petroleum Engineers.

The information in this Prospectus which relates to the Petroleum Reserves and Contingent Resources in Section 5 is as at 28 February 2019 and is based on, and fairly and accurately represents, in the form and context in which it appears, information and supporting documentation prepared by MHA Petroleum Consultants LLC, or under the supervision of Mr Jeffrey B Aldrich and Dr John Seidle. Mr Aldrich is a Certified Petroleum Geologist by the American Association of Petroleum Geologists and a Licensed Professional Geoscientist and a member of the Society of Petroleum Engineers. Mr Aldrich has over thirty years of experience as a practicing petroleum geologist/geophysicist and over twenty years of experience in oil and gas reserve evaluations. He holds a Bachelor of Science degree in Geology from Vanderbilt University and a Master of Science degree in Geology from Texas A&M University. Dr Seidle is a Certified Petroleum Geologist by the American Association of Petroleum Geologists and a member of the Society of Petroleum Engineers. Dr Seidle has more than thirty-five years of experience in unconventional gas and oil reservoir engineering and received a PhD in Mechanical Engineering from the University of Colorado. Mr Aldrich and Dr Seidle each have sufficient experience which is relevant to the evaluation and estimation of Petroleum Reserves and Contingent Resources to qualify as a Qualified Reserves and Resources Evaluator as defined in the ASX Listing Rules.

MHA Petroleum Consultants, Mr Aldrich and Dr Seidel have consented to the inclusion in this Prospectus of the matters based on this information in the form and context in which they appear.

Prospectus availability

A hard copy of the Prospectus is available free of charge during the Offer Period to any person in Australia or New Zealand by calling the Renergen Offer Information Line on 1300 140 590 (within Australia) or +61 3 9415 4109 (from outside Australia) between 9.00am and 5.00pm (Sydney time), on Monday to Friday (Business Days only).

This Prospectus is also available in electronic form to Australian and New Zealand residents on the Offer website www.renegen.com.au/investor-relations/. The Offer constituted by this Prospectus in electronic form is available only to Australian and New Zealand residents accessing the website within Australia or New Zealand. Hard copy and electronic versions of the Prospectus are not available to persons in other jurisdictions, including the United States, in which the making of the Offer would not be lawful.

Applications for CDIs may only be made on the Application Form attached to, or accompanying, this Prospectus. By making an Application, you declare that you were given access to the Prospectus, together with the Application Form.

The Corporations Act prohibits any person from passing the Application Form on to another person unless it is attached to, or accompanied by, this Prospectus in its paper copy form or the complete and unaltered electronic version of this Prospectus. Refer to Section 11.4 for further information.

Cooling-off rights

Cooling off rights do not apply to an investment in CDIs pursuant to the Offer. This means that, in most circumstances, you cannot withdraw your Application once it has been accepted.

No offer where Offer would be illegal

This Prospectus does not constitute an offer or invitation in any place in which, or to any person to whom, it would not be lawful to make such an offer or invitation. No action has been taken to register or qualify the CDIs or the Offer, or to otherwise permit a public offering of CDIs, in any jurisdiction outside Australia and New Zealand. The distribution of this Prospectus (in electronic form) outside of Australia and New Zealand may be restricted by law and persons who come into possession of this Prospectus outside Australia or New Zealand should seek advice on and observe such restrictions. Any failure to comply with such restrictions may constitute a violation of applicable securities laws.

This document may not be released or distributed in the United States of America. This document does not constitute an offer to sell, or a solicitation of an offer to buy, securities in the United States of America. Any securities described in this document have not been, and will not be, registered in the United States of America.

Notice to New Zealand Residents

This Offer to New Zealand investors is a regulated Offer made under Australian and New Zealand law.

This Offer and the content of the Prospectus are principally governed by Australian rather than New Zealand law.

There are differences in how securities are regulated under Australian law, compared with New Zealand law.

The rights, remedies, and compensation arrangements available to New Zealand investors in Australian securities may differ from the rights, remedies, and compensation arrangements for New Zealand securities.

Both the Australian and New Zealand securities regulators have enforcement responsibilities in relation to this Offer. New Zealand residents wishing to make a complaint about this Offer should contact the Securities Commission, Wellington, New Zealand.

The taxation treatment of Australian securities is not the same as for New Zealand securities.

The Offer may involve a currency exchange risk. The currency for the CDIs is not New Zealand dollars. The value of the CDIs will go up or down according to changes in the exchange rate between that currency and New Zealand dollars. These changes may be significant.

If you expect the CDIs to pay any amounts in a currency that is not New Zealand dollars, you may incur significant fees in having the funds credited to a bank account in New Zealand in New Zealand dollars.

If the CDIs are able to be traded on a securities market and you wish to trade the CDIs through that market, you will have to make arrangements for a participant in that market to sell the CDIs on your behalf. If the securities market does not operate in New Zealand, the way in which the market operates, the regulation of participants in that market, and the information available to you about the CDIs and trading may differ from securities markets that operate in New Zealand.

Notice to Hong Kong Residents

The contents of this Prospectus have not been reviewed by any regulatory authority in Hong Kong. You are advised to exercise caution in relation to the Offer. If you are in any doubt about any of the contents of this Prospectus, you should seek independent professional advice. Refer to Section 11.10 for further information.

Notice to United Kingdom Residents

This Prospectus does not constitute a Prospectus for the purpose of the Prospectus rules issued by the United Kingdom Financial Services Authority (the **FSA**) pursuant to Section 84 of the Financial Services and Markets Act 2000 (as amended) and has not been approved by or filed with the FSA. Refer to Section 11.10 for further information.

Notice to Singapore Residents

The Offer or invitation, which is the subject of this Prospectus, is only allowed to be made to certain categories of investors and not the retail public in Singapore. This is not, however, a Prospectus as defined in the Securities and Futures Act (Chapter 289) of Singapore (the **SFA**). Accordingly, statutory liability under the SFA in relation to the content of the Prospectus would not apply.

You should consider carefully whether the investment is suitable for you. Refer to Section 11.10 for further information.

Notice to South African Residents

The Offer or invitation, which is the subject of this Prospectus, is not being made to and is not capable of acceptance by, anyone in South Africa. This Prospectus is not a “registered prospectus” for purposes of the Companies Act (and has not been registered with the South African Companies and Intellectual Property Commission). Refer to Section 11.10 for further information.

Privacy

By completing an Application Form, you are providing personal information to the Company and the Registry, which is contracted by the Company to manage Applications, and consent to the collection and use of that personal information in accordance with these terms. That personal information will be collected, held and used both in and outside of Australia by the Company, and the Registry on its behalf, to process your Application, service your needs as a Shareholder, provide facilities and services that you request and carry out appropriate administration of your investment. If you do not wish to provide this information, the Company may not be able to process your Application.

Once you become a Shareholder, the Corporations Act and Australian taxation legislation require information about you (including your name, address and details of the CDIs you hold) to be included in the Company’s public share register. This information must continue to be included in the Company’s public share register if you cease to be a Shareholder.

The Company and the Registry on its behalf, may disclose your personal information for purposes related to your investment to their agents and service providers (which may be located outside of Australia) including those listed below or as otherwise authorised under the Privacy Act 1988 (Cth):

- the Registry for ongoing administration of the securityholder register;
- the Lead Manager in order to assess your Application;
- printers and other companies for the purposes of preparation and distribution of documents and for handling mail;
- market research companies for the purpose of analysing the Company’s Shareholder base and for product development and planning; and
- legal and accounting firms, auditors, management consultants and other advisers for the purpose of administering and advising on the CDIs and for associated actions.

Under the Privacy Act 1988 (Cth), you may request access to your personal information that is held by, or on behalf of, the Company. You can request access to your personal information or obtain further information about the Company’s privacy practices by contacting the Company, or its Registry.

The Company aims to ensure that the personal information it retains about you is accurate, complete and up-to-date. To assist with this, please contact the Company or the Registry if any of the details you have provided change.

In accordance with the requirements of the Corporations Act, information on the Shareholder register will be accessible by members of the public.

Company's website

Any reference to documents included on the Company's website are provided for convenience only, and none of the documents or other information on the Company's website (www.renegen.com.au), or any other website referred to in this Prospectus is incorporated by reference.

Definitions and abbreviations

Defined terms and abbreviations used in this Prospectus, unless specified otherwise, have the meaning given in the Glossary in Section 15. Unless otherwise stated or implied, all references to time in this Prospectus refer to the time in Sydney, Australia.

Unless otherwise stated or implied, references to dates or years are to financial years ended 28 February.

Regulation of Renegen

As the Company is not established in Australia, its general corporate activities (apart from any offering of securities in Australia) are not regulated by the Corporations Act or by ASIC but instead are regulated by the Companies Act.

Questions

If you have any questions in relation to the Offer, please call your Broker. Instructions on how to apply are set out in Section 11.4 and on the back of the Application Form. Alternatively, call the Renegen Offer Information Line on 1300 140 590 (within Australia) or +61 3 9415 4109 (from outside Australia) between 9.00am and 5.00pm (Sydney time), Monday to Friday (Business Days only).

This document is important and should be read in its entirety before making any investment decision.

KEY DATES

	Date
Prospectus Date	23 April 2019
Replacement Prospectus date	8 May 2019
Opening Date of Offer (9.00 am)	9 May 2019
Closing Date of Offer (5.00 pm)	22 May 2019
Issue of New CDIs under the Offer	27 May 2019
Expected despatch of holding statements and confirmation advices	28 May 2019
CDIs expected to commence trading on ASX on a normal (T+2) basis	31 May 2019

The above key dates are indicative only. Unless otherwise indicated, all times given are Sydney time. The Company, in consultation with the Lead Manager, reserves the right to vary any and all of the above dates without notice (including, subject to the ASX Listing Rules and the Corporations Act, to close the Offer early, to extend the Closing Date, or to accept late Applications or bids, either generally or in particular cases, or to cancel or withdraw the Offer before Completion, in each case without notifying any recipient of this Prospectus or Applicants). Investors are encouraged to submit their Applications as soon as possible.

KEY OFFER STATISTICS

	Based on Minimum Subscription	With \$5 million of over subscriptions
Ratio of CDIs per Share ¹	1	1
Offer Price per CDI	\$0.80	\$0.80
Gross proceeds of the Offer (before costs and expenses)	\$5,000,000	\$10,000,000
Total number of CDIs available under the Offer	6,250,000	12,500,000
Number of Shares held by Existing Shareholders before the Offer	100,135,752	100,135,752
Total number of Shares on issue at Completion (on an undiluted basis)	106,385,752	112,635,752
Indicative market capitalisation of the Company at Completion at the Offer Price (on an undiluted basis) ²	\$85,108,602	\$90,108,602
Options on issue at Completion (over Shares or CDIs)	5,787,359	6,068,609
Indicative market capitalisation of CDIs listed on ASX (on a fully diluted basis, that is, on the basis that all Options over Shares are exercised) ^{3, 4}	\$9,629,887	\$14,854,887
Indicative market capitalisation of Shares listed on AltX (on a fully diluted basis, that is, on the basis that all Options over CDIs are exercised)	\$80,108,602	\$80,108,602

Notes

1. If the Company's CDIs are admitted to the Official List of ASX it will have CDIs listed on the ASX and Shares listed on the AltX, each of which rank equally with the other and will be capable of conversion by application into the other on a one for one basis. The restrictions noted in Section 12.12 of this Prospectus will apply.
2. Assumes all Shares are held in the form of CDIs.
3. Market capitalisation is usually determined by multiplying the number of CDIs on issue by the price at which the CDIs trade on ASX and AltX from time to time. For indicative purposes only, market capitalisation assumes the Offer Price as shown. CDIs may not trade at the Offer Price after Listing. If CDIs trade below the Offer Price after Listing, the market capitalisation will be lower than the amount shown for indicative purposes only.
4. The Company is proposing to grant Options to the Options Offerees under the Options Offer, as detailed in Section 11.5.
5. The Key Offer statistics do not include any CDIs that may be issued as a result of the conversion of the convertible notes. Refer to Section 13.8 for more details.

LETTER FROM THE CHAIRMAN

8 May 2019

Dear Investors,

On behalf of the Board of Directors of Renergen Limited (**Renergen** or the **Company**), it is my pleasure to invite you to become an investor in the Company.

Already listed on Johannesburg's AltX securities exchange with a market capitalisation of approximately \$77.7 million, Renergen is an emerging helium and LNG producer with existing compressed natural gas (**CNG**) production and sales. Renergen's principal asset is its 90% shareholding in Tetra4 Proprietary Limited (**Tetra4**), which holds the first and only onshore petroleum production right in South Africa, giving it first mover advantage on the distribution of natural gas in South Africa. The production right was issued by the Department of Mineral Resources and is valid for a remaining 23 years.

Tetra4's Virginia Gas Project is located in the Free State province about 250 km southwest of Johannesburg and represents a major global helium resource and a significant natural gas resource. The gas fields are situated in an energy scarce area, with high customer density and limited competition. The natural gas contains one of the richest helium concentrations recorded globally.

Renergen is undertaking a significant near-term expansion of the Virginia Gas Project to produce liquid helium and liquid natural gas (**LNG**).

The expansion of the Virginia Gas Project will be undertaken in stages. Stage One involves connecting 12 existing gas wells to a new gas pipeline and constructing a new helium and LNG plant with a maximum daily production capacity of 74.6 mcf (or about 350 kg) of liquid helium and 2,700GJ (or about 50 tons) of LNG (the New Plant). Tetra4 has obtained all regulatory approvals required for the planned expansion of the Virginia Gas Project, including the New Plant. Contractual award of the New Plant is expected by 1 June 2019, with completion and commissioning within 21 months. Stage One is fully funded as a result of the Company completing a rights issue in November 2018 that raised ZAR125 million (or about \$11.8 million) and the committed debt funding of US\$40 million (or about \$56.3 million) from OPIC, the United States' government development finance institution. Renergen will commence Stage One of the expansion regardless of whether the Minimum Subscription is raised.

Tetra4's CNG Plant has been in operation since May 2016, replacing diesel by supplying less carbon-intensive natural gas to Megabus, a division of KAP Industrial Limited, at its depot in Virginia. The plant will commence supplying CNG to a filling station in Johannesburg for Anheuser-Busch during H1 CY2019.

Helium, separated from natural gas after extraction from the ground, is a rare, inert gas, which is an irreplaceable element without substitute. It is widely used in diverse applications such as cryogenics (including MRI), welding, semiconductor manufacturing, optical fibre manufacturing, leak detection, lifting, rocketry and others. The Company's planned product, liquid helium, is essential for superconducting due to its ultra-low temperature (minus 269°C) and is increasingly viewed as a high-tech element owing to its growing use in electronics manufacturing. As a commodity, helium has experienced strong demand growth and diminishing supply and is now considered to be strategic, given its scarcity. The helium BLM auction prices have increased by over 460% since 2007. I invite you to read Edison Investment Research's Independent Market Report on the Global Helium Industry which is set out in Section 3.

Tetra4 has entered into a fully termed take-or-pay helium offtake agreement with Linde Global Helium for up to a maximum annual volume of 24,000 mcf to satisfy its liquid helium consumption in South Africa. Tetra4 has a ready market for its LNG product having entered into gas sales agreements with Megabus, Anheuser-Busch and Black Knight Logistics.

Once the New Plant is operational, Tetra4 will cease its CNG production and replace this with LNG.

The funds raised under this Offer will primarily be used to fund the drilling of additional production wells in Tetra4's proven gas reserves, aiming to produce gas to operate the New Plant at maximum capacity. The funds will also be used to partially fund a feasibility study for the commercialisation of the high concentration helium reserves contained in the Virginia Gas Project's prospective sandstone deposit, which is highlighted in our Technical Gas Reserves Report in Section 5.

The Offer provides investors with:

- an ASX investment exposure to helium, a rare, finite commodity with strong demand and supply fundamentals;
- an investment into South Africa's first commercial LNG project;
- expected near-term helium and LNG production;
- significant helium and natural gas reserves and resources, with long-dated tenement expiry; and
- access to existing production – Tetra4 is already in production and is selling all of its CNG production.

This Prospectus is issued primarily for the purpose of offering the Offer to raise \$5 million (before associated costs) via the issue of CDIs at an Offer Price of \$0.80 per CDI, with the right to accept oversubscriptions up to a further \$5 million. Each CDI will represent 1 Share in the Company. This Prospectus is also issued for the purposes of offering the Options Offer and, pursuant to section 708A(11) of the Corporations Act, removing any trading restrictions on the sale of CDIs issued under this Prospectus prior to the Closing Date.

This Prospectus contains detailed information about the Offer and the financial position, operations, management team and future plans of Renergen. Sections 1.4 and 7 include a description of the key risks associated with an investment in Renergen, such as construction and development risks for the New Plant, inability to attract customers and exposure to commodity prices. It is important that you review Sections 1.4 and 7 in detail. I encourage you to read the Prospectus carefully and in its entirety before making your investment decision and, if required, consult with your stockbroker, solicitor, accountant or other independent professional adviser.

I look forward to welcoming you as an investor.

Yours sincerely,



Brett Kimber
Chairman

1. INVESTMENT OVERVIEW

The information contained in this Section is a summary only. You should read this Section in conjunction with the information set out in the remainder of this Prospectus.

1.1. Background

Topic	Summary	Further Information
Who is Renergen?	Renergen is an emerging producer of helium and liquefied natural gas (LNG), with existing production and sales of compressed natural gas (CNG). Renergen was listed on Johannesburg's AltX securities exchange in June 2015 as South Africa's first listed alternative and renewable energy company.	Section 2
Background of the Virginia Gas Project	Renergen's principal asset is its 90% shareholding in Tetra4, which holds the first and only onshore petroleum production right in South Africa, giving it first mover advantage on distribution of domestic natural gas. The production right was issued by the DMR and is valid for 23 years. Tetra4's Virginia Gas Project is located in the Free State, approximately 250 km southwest of Johannesburg. The exploration right covers a large area where gas emitting boreholes were identified through other mineral exploration activities. Several of these boreholes are flowing gas at high production rates, with high concentrations of helium, and have been doing so for decades. The Virginia Gas Project also benefits from being in operation, with a pilot compressing station producing CNG for use in buses in the area. Following the DMR's award on 29 September 2017 of an Environmental Authorisation to construct all mid-stream and downstream facilities, Tetra4 has met all regulatory deliverables and contractual award of the New Plant is expected by June 2019, followed by completion and commissioning within 21 months. Tetra4 intends to decommission the compression station and begin exclusively producing LNG and liquid helium once the New Plant is operational. Tetra4's natural gas offers a less carbon-intensive substitute for South Africa's existing transport fuel, thermal fuel and power. The gas fields are situated in an energy scarce area, with high customer density and limited competition. The natural gas resource contains one of the richest Helium concentrations recorded globally.	Section 2
What is Renergen's business focus?	Renergen's business focus is on the commercialisation of the Virginia Gas Project which has significant reserves of both helium and natural gas. Tetra4's gas production to date has a high helium concentration, with the average percentage ranging between 2% and 4% and its most recent production well (2057N) drilled in September 2016 producing 11% helium. The purity of the natural gas is also high, with an average of over 90% methane, and almost zero higher alkanes, which reduces the complexity of liquefaction.	Section 2

Topic	Summary	Further Information
What is Renergen's product offering and what industry does it operate in?	Tetra4 intends to produce helium and LNG. It will sell its helium product under an offtake agreement with Linde Global Helium, as well as to other participants in the global helium industry. Tetra4 has a fully termed offtake agreement with Linde Global Helium for the Virginia Gas Project's helium production for up to 24,000 mcf per annum. Tetra4 will sell its LNG product to domestic consumers, targeting primarily the South African transport industry, in which it has established relationships with customers. Tetra4 will distribute its LNG product via modular mobile refuelling facilities, which Tetra4 will locate on vacant land to be leased on established trucking routes. By switching from diesel to Tetra4's LNG, customers will realise a meaningful cost saving and reduce their carbon tax (following its anticipated introduction in South Africa in 2019). In addition to the heavy haulage vehicle market, Tetra4 will also target existing South African users of LPG. LPG is actively used in South African heavy industry and is priced at a significant premium to Tetra4's expected price for LNG. There are only limited barriers for customers to switch from LPG to LNG, given they are both light gases. Independent Market Reports on the global helium industry and on the natural gas market in South Africa are set out in Sections 3 and 4.	Sections 2, 3 and 4
Why is helium important?	Helium is a vital and irreplaceable element in many modern industries. Helium is used for space exploration, rocketry, high level science, in the medical industry for MRI machines, fibre optics, electronics, telecommunications, superconductivity, underwater breathing, welding and nuclear power stations and lifting balloons.  Source: Kornbluth consulting www.kornbluthheliumconsulting.com; Edison Investment Research The Independent Market Report on the global helium industry in Section 3 states that there is likely to be a global shortage of helium supply starting in 2019 and continuing until new planned projects in Qatar and Russia come online, planned for 2020, and around 2021 or 2022 respectively. There is no way of manufacturing helium artificially and existing naturally occurring resources are finite. Depletion of the US-based Hugoton Field places additional supply constraints from 2023 onwards. The accessibility and commerciality of helium reserves are complex and are generally found within conventional natural gas reservoirs in small concentrations (<0.5%), making helium a valuable commodity as long as the gas is profitable to extract. Due to its properties, helium cannot be produced from shale.	Section 3

Topic	Summary	Further Information
Why is helium important?	Helium is a rare commodity and becomes economically viable to extract from natural gas at concentrations as low as 0.1%. The Virginia Gas Project's average concentration of helium is 3.4%, placing Tetra4 at the forefront of exciting new discoveries for global helium supply.	Section 3
What are Renergen's current operations?	Tetra4 is currently producing and selling CNG on a small scale from its existing CNG Plant, which can produce up to 200 GJ per day of gas from one well. The CNG Plant includes a compression station, mobile storage units and a dispensing station located at the site of Tetra4's customer, Megabus, which has been successfully trialling replacement of diesel with Tetra4's CNG product in its buses since May 2016. The CNG Plant commenced operation in May 2016 and was operating per design specifications since September 2016. The operation has been successfully supplying dedicated CNG buses in the area and has served its purpose of proving the business case for the substitution of CNG for diesel by local fleet operators. Tetra4 will commence supplying CNG to a filling station in Johannesburg for Anheuser-Busch during H1 CY2019. Once the New Plant is operational, CNG production will cease at the Virginia Gas Project and will be replaced with LNG.	Section 2
What are Renergen's future plans?	The expansion will occur in stages. Stage One involves connecting 12 existing gas wells to a new gas pipeline and constructing the New Plant for helium and LNG with a maximum daily production capacity of 74.6 mcf (or about 350 kg) of liquid helium and 2,700GJ (or about 50 tons) of LNG. Contractual award of the New Plant is expected by June 2019, with completion and commissioning within 21 months. Stage One is fully funded as a result of the Company completing a rights issue that raised ZAR125 million (or about \$11.8 million) in November 2018 and committed debt funding of US\$40 million (or about \$56.3 million) from OPIC. The conditions to OPIC's committed debt funding include execution of formal agreements on or prior to 30 September 2019. Renergen will commence Stage One of the expansion regardless of whether the Minimum Subscription is raised. The funds raised under the Offer will primarily be used to fund the drilling of additional production wells in Tetra4's proven gas reserves, aiming to produce gas to operate the New Plant at maximum capacity. The funds will also be used to partially fund a feasibility study for the commercialisation of the high concentration helium reserves contained in the Virginia Gas Project's prospective sandstone deposit. Subject to the outcome of this study, Tetra4 intends to proceed with Stage Two, being the commercialisation of these high concentration helium reserves. Funds will be entirely expended on Renergen's petroleum production right, which is valid for a remaining 23 years. It is not proposed to expend funds on tenements subject to renewal.	Section 11.2

1.2. Key features of Renergen's business model

Topic	Summary	Further Information
What Reserves and Resources does Tetra4 have?	Tetra4 has discovered commercial helium reserves of 6.86 Bcf and contingent helium resources of between 7.9 Bcf and 20.9 Bcf, with one of the richest helium concentrations recorded globally (average 3.4%, with helium becoming economically viable to extract from natural gas at concentrations as low as 0.1%). Tetra4 also has discovered commercial methane gas reserves of 284.18 Bcf, methane contingent resources of between 237.3 Bcf and 684.5 Bcf, and methane prospective resources of between 640 Bcf and 2,069 Bcf, with high purity of the natural gas resource (average 90% methane) and almost zero higher alkanes (which reduces the complexity of LNG production). An Technical Report on Tetra4's helium and methane gas reserves and resources is set out in Section 5, drafted in accordance with PRMS. The Company has approved the 209 well Field Development Plan with its commensurate capital as per the Technical Report which justify a 50 year life of field plan.	Sections 5 and 6
Government Permits and Authorisations	Tetra4 has obtained all regulatory approvals required for Stage One of the expansion of the Virginia Gas Project, including obtaining an Environmental Authorisation on 29 September 2017. A Solicitor's Report on Tetra4's helium and petroleum tenement rights is set out in Section 6.	
Who are Renergen's competitors in helium?	Helium is sold as a globally traded commodity and has traditionally been traded on confidential long-term private contracts, keeping prices opaque and reducing incentives for helium exploration. Five major facilities (BLM storage, LaBarge, Hugoton, Algeria and Qatar) produce around 80% of global helium upstream supply. A similar number of large players control the distribution of helium, which is often carried out under privately negotiated contracts. The entire global helium supply is produced by about 20 liquefaction plants, located in the United States, Poland, Russia, Algeria, Qatar, China, and Australia. The United States is still the major producer, but most new sources are developing elsewhere. The bulk of US production is related to the BLM, which manages the world's largest helium reserve. In recent years, BLM-related production has diminished considerably. Helium is a global product in tight supply and disruptions can easily create shortages. Global supply of helium is difficult to estimate. The US remains the largest helium supplier, but the BLM, which represents approximately 20% of the world-wide supply, will cease supply by 2021. This is due to natural depletion and the US Helium Stewardship Act of 2013, which mandates the sale of helium reserves previously stored in the US federal helium reserve. BLM's August 2018 helium auction is expected to be its final auction, as reserves are anticipated to reach the federally mandated 3 Bcf limit of strategic reserves. Qatar is a significant supplier of helium globally, providing over 28% of the world's supply. Qatar has been producing LNG since 1996 and has been extracting helium as a by-product of LNG production since at least 2005. During 2017, multiple Arab states cut diplomatic ties with and closed their borders to Qatar, disrupting helium production and transportation for several weeks. An Independent Market Report on the global helium industry is set out in Section 3.	Sections 2 and 3

Topic	Summary	Further Information
Who are Renergen's competitors in natural gas?	The South African gas market has historically been stagnant, and almost entirely dependent on local production of LPG and natural gas imported from Mozambique. There are frequent constraints in LPG supply in South Africa. Natural gas imported from Mozambique comes via the Republic of Mozambique Pipeline Company pipeline to Johannesburg and is supplied mainly to users close to the pipeline at low pressures. This source of gas is unable to fully supply existing gas demand. An Independent Market Report on the natural gas market in South Africa is set out in Section 4.	Sections 2 and 4

1.3. Key strengths and competitive advantages

Topic	Summary	Further Information
Proven helium reserves make Tetra4 a meaningful player in the global landscape	Tetra4 enjoys a high helium concentration in its gas stream, with an average concentration of 3.4%, with its most recent well (2057N) (drilled in September 2016) producing 11% helium.	Sections 2 & 5
Helium is a high growth global market	Edison Investment Research in its Independent Market Report, reports that there is likely to be a global shortage of helium supply commencing in 2019.	Section 3
First mover advantage on distribution of natural gas in South Africa	Tetra4 was granted the first and only onshore petroleum production right in South Africa and has experience in producing and selling natural gas, having started doing so in May 2016. As a result of constructing a New Plant to produce helium and LNG, Tetra4 plans to capitalise on its first mover advantage and begin supplying LNG to the South African transport industry and other users well ahead of any other supply entering the market.	Section 2
All regulatory approvals obtained	Tetra4 has obtained all regulatory approvals required for the planned expansion of the Virginia Gas Project, including the New Plant.	Section 2.8
Large LNG market in South Africa – particularly for the transportation industry	Demand for Tetra4's LNG is expected to significantly exceed its production capacity, given that South Africa lacks LNG import infrastructure and has no other access to LNG. An Independent Market Report on the natural gas market in South Africa is set out in Section 4.	Sections 2 & 4
Scalable plant	The New Plant has been designed to be scalable, to support the anticipated growing demand for helium and LNG.	Section 2
Revenue is linked to US dollar	Tetra4's expected future helium revenue is denominated in US dollars, whilst its expenses are primarily incurred in Rand. This means that if the Rand depreciates against the US dollar, Tetra4 would become more profitable. However, the opposite is also true.	Section 2

Topic	Summary	Further Information
Exploration potential	Tetra4 also holds the Evander Exploration Right, which is an additional onshore petroleum exploration right at Evander, Mpumalanga in South Africa. Although Tetra4 has to date not commenced any drilling, there are existing drill holes drilled by others exploring for minerals, rather than petroleum, two of which produce natural gas. The Evander Exploration Right also has a significant number of additional sites that show indications of natural gas and helium.	Sections 2 & 5
Tetra4 is expected to be an economic stimulator for the region	Tetra4 has garnered significant support from local business and communities. This is an important underpinning of Tetra4's social licence to operate and will continue to be a focus for Tetra4 during the proposed expansion of the Virginia Gas Project and after helium and LNG production commences.	Section 2

1.4. Summary of key risks

There are a number of risks associated with an investment in the Company that may affect its financial performance, financial position, cash flows, distributions and growth prospects and the price of CDIs. The following table is a summary of key risks that the Company is exposed to. Further details about these and other specific and general risks associated with an investment in the Company are set out in Section 7. An investment in the CDIs offered under this Prospectus should be considered highly speculative and investors should consider the risk factors described below, including the additional risks in Section 7, before making an investment decision.

Topic	Summary	Further Information
Construction and new production facilities	With the funds raised by the Company from its rights issue in November 2018 and the loan from OPIC, Renergen aims to construct and commission the New Plant by Q1 CY2021. There is an inherent risk that Renergen may not be able to achieve this operational milestone in the expected timeframe or in a cost-effective manner. The construction and commissioning of any new facility is dependent on a number of contingencies, some of which are beyond the Company's control. These contingencies include but are not limited to: securing access to new production sites that are appropriate for the intended use, obtaining all necessary licenses and permits, accessing additional labour, drilling programmes running over time and budget, and securing the delivery of production machinery from third party manufacturers of the scale required in a cost and time effective manner. The Company has mitigated a number of these risks, such as by obtaining all licences and permits and securing the site on which to build the New Plant. Renergen's projected cost for the construction of the New Plant is predominantly comprised of fixed costs and some variable costs. The cost projections for the New Plant are dependent upon certain assumptions, estimates and judgements which may prove to be inaccurate or unreliable. There is a risk that significant unanticipated costs or delays could arise due to errors or omissions, unforeseen technical issues (such as major equipment failures), increases in plant and equipment costs, inadequate contractual arrangements, labour difficulties or unusually adverse weather conditions. Should significant unanticipated costs or delays arise, this could have a material adverse impact on Renergen's business, financial performance and operations.	Section 7

Topic	Summary	Further Information
Construction and new production facilities	Renergen's expansion of production may also place increased demand on Renergen's management, operating systems, internal controls and physical resources. If not managed effectively, these increased demands may adversely affect Renergen's financial position and ability to meet customer demands. In addition, Renergen's personnel, systems, procedures and controls may be inadequate to support future operations. In order to manage this expansion effectively, Renergen may need to increase expenditures in order to increase its physical resources, expand, train or manage its employee base, and improve management, financial and information systems and controls. Renergen's results of operations, financial condition and growth objectives are likely to be materially adversely affected if it is not able to manage effectively the budgeting, construction, forecasting or other process control issues presented by scaling up its operations.	Section 7
Regulatory risks, including environmental and mining regulation	Renergen's operations are subject to a number of environmental laws and regulations. Customers, competitors, members of the general public or regulators could allege breaches of legislation or regulations in the relevant jurisdictions in which it operates. This could result in remedial action or litigation, which could potentially lead to the Company being required to pay compensation or a fine. The Company's current and future operations may also become subject to additional regulatory requirements beyond those currently applicable, such as more stringent environmental or other licensing and reporting obligations, which would increase the costs and resources associated with regulatory compliance. Any such increase in the costs and resources associated with regulatory compliance could impact upon the Company's revenues. In addition, if regulators took the view that the Company had failed to comply with regulatory requirements, this could lead to enforcement action resulting in public warnings, infringement notices, and the imposition of a pecuniary penalty or even withdrawal of operating permissions. This could lead to significant damage to the Company's reputation or ability to operate, and consequently an adverse impact on its business and financial performance. As environmental laws and regulations become more complex and stringent, Tetra4's environmental management plans and/or programmes and other environmental licences may be the subject of increasingly strict interpretation or enforcement or become more comprehensive and could result in increased capital or operating expenditure or financial or other penalties and/or the suspension or loss of its production rights. The occurrence of any of these risks could have a material adverse effect on the Tetra4's business, financial condition, results of operations and prospects.	Section 7

Topic	Summary	Further Information
Investment in Emerging Markets	The South African economy is vulnerable to market downturns, currency fluctuation and economic slowdowns elsewhere in the world, and, generally, investing in emerging markets such as South Africa involves greater risk than investing in more developed markets, including in some cases significant legal, economic and political risks. Emerging markets such as South Africa are subject to rapid change. Global financial or economic crises in any large emerging market country tend to adversely affect prices in equity markets of most or all emerging market countries as investors move their money to more stable, developed markets. As has happened in the past, financial problems or an increase in the perceived risks associated with investing in emerging economies could dampen foreign investment in South Africa and adversely affect the economy. In addition, during such times, businesses that operate in emerging markets can face severe liquidity constraints as foreign funding sources are withdrawn.	Section 7
Interruptions to operations	Renergen is exposed to short, medium or long-term interruptions to its operations arising from events including industrial disputes, electricity and gas interruptions, work stoppages, acts of terrorism, fires, floods, earthquakes and other natural disasters. In addition, Renergen's production facilities may not function reliably, efficiently or cost effectively, resulting in fewer helium and LNG products produced than planned, of lesser quality or at higher than expected costs. Renergen is particularly exposed to these interruptions, given it currently only operates the CNG Plant. Renergen is also exposed to such events in relation to the proposed New Plant and any future additional plants. Any such interruption could have a material adverse effect on Renergen's business, operating or financial performance.	Section 7
Inability to attract customers	Historically Renergen has sold its CNG product on a small scale to a limited number of customers. The success of Renergen's growth strategy is highly dependent upon securing additional customers for Renergen's products on a larger scale and converting trial or pipeline customers, including its strategic relationships with Megabus, into ongoing revenue-producing commercial supply relationships. Renergen has sought to mitigate a number of these risks by entering into a helium supply agreement with Linde Global Helium and agreements for the supply of natural gas generated by the New Plant (once in operation) with Megabus, a subsidiary of Anheuser-Busch and Black Knight Logistics. Renergen's ability to do this will be dependent on whether it is able to meet customer demands in terms of quality, price, volume and functional requirements. There is no guarantee that Renergen will be able to do any of these things.	Section 7

Topic	Summary	Further Information
Exposure to commodity prices	The price that Tetra4 achieves and/or may achieve for its helium and LNG products will be impacted by global commodity prices. Historically, commodity prices have fluctuated and are affected by numerous factors beyond the Company's control, including global demand and supply, weather conditions, the price and availability of alternative fuels, actions taken by governments and international cartels, the cost of freight, international economic trends, currency exchange fluctuations, expectations for inflation, speculative activity, consumption patterns and global or regional political events. The aggregate effect of these factors is impossible to predict. Fluctuations in commodity prices, over the long term, may adversely impact the returns from the Company's investments. International oil and gas prices have fluctuated widely in recent years and may continue to fluctuate significantly in the future. Sustained downward movements in oil and gas prices could render less economic, or wholly uneconomic, some or all of the exploration and the existing, and potential future, oil production related activities to be undertaken in respect of those assets in which the Company has an interest. Any material decline in oil and gas prices could result in a reduction of the Company's net production revenue and overall value. The economics of producing from some wells may change as a result of lower prices, which could result in a reduction in the volumes produced from the Company's assets. All of these factors could result in a material decrease in the Company's net production revenue causing a reduction in its acquisition and development activities. A substantial material decline in prices from historical average prices could also reduce the Company's ability to borrow future funds.	Section 7
Sufficiency of funding and working capital	The Directors believe that, on Completion, the Company will have sufficient working capital to carry out its objectives as stated in this Prospectus. The Directors do not expect that the Company will need to raise more equity or debt finance (other than the OPIC committed facility) in the next 12 months. There can be no assurance that such objectives can be met or that no further funding will be required. Additional funds may be difficult to raise or may be dilutionary to the then existing Shareholders.	Section 7

Topic	Summary	Further Information
Accessing the committed OPIC debt funding	Renergen's ability to effectively implement its business and operations plans in the future depend in part on its ability to access the committed US\$40 million debt funding from OPIC. The OPIC Loan is currently at commitment letter stage and subject to a number of conditions precedent, including OPIC being satisfied with its due diligence. The other conditions precedent to the first disbursement under the loan include: • execution of definitive financing documents in form and substance satisfactory to OPIC; • either a cession and pledge of the shares, or an escrow of the share certificates held by a suitable authority or a best efforts undertaking in favour of OPIC; • obtaining all necessary and effective governmental and third party permits, licenses and consents for the project, including approval by the Surveillance Department of the South Africa Reserve Bank; • establishment of the 6 month debt reserve account and funding of the amounts due on the loan for the immediately succeeding 6 months; and • obtaining all land rights necessary to secure the rights to access, construct and operate the required plant and infrastructure for the Project. Renergen has obtained all permits and regulatory approvals, as required by the third condition, including the approval of the Surveillance Department of the South Africa Reserve Bank. Land access consents and approvals are in the process of final commercial negotiations with landowners and the Company expects to obtain full consent upon the completion of negotiations in the near future. Renergen expects that there will be further conditions in the formal agreements, as is usual for lending transactions, such as for delivery of signed documentation, legal opinions, payment in full to OPIC of all fees expenses payable by Renergen and performances of all obligations under the funding documents. There is a risk that these conditions will not be satisfied and Renergen will not be able to access the OPIC committed funding. In that event, Renergen would need to arrange alternative debt funding and this may impact the cost of funding, Renergen's timing for the development of its project or its ability to proceed with it at all. However, Renergen considers that the conditions precedent are usual conditions for similar lending transactions and expects that they will be satisfied in due course.	Section 9.10 and Section 12.2

1.5. Key financial information

Topic	Summary	Further Information																																																																																							
What is the key financial information?	The following table summarises the historic consolidated Statement of Profit or Loss and Other Comprehensive Income: <table><tr><th></th><th>12 months ended 28 February 2017 Audited ZAR000's</th><th>12 months ended 28 February 2018 Audited ZAR000's</th><th>6 months ended 31 August 2018 Reviewed ZAR000's</th><th>6 months ended 31 August 2017 Reviewed ZAR000's</th></tr><tr><td>Revenue</td><td>1,722</td><td>2,885</td><td>1,753</td><td>1,429</td></tr><tr><td>Gross (loss)/profit</td><td>(405)</td><td>(598)</td><td>130</td><td>(428)</td></tr><tr><td>Operating loss</td><td>(23,019)</td><td>(40,102)</td><td>(17,774)</td><td>(17,099)</td></tr><tr><td>Loss before tax</td><td>(24,896)</td><td>(43,037)</td><td>(19,620)</td><td>(18,617)</td></tr><tr><td>Loss after tax</td><td>(18,662)</td><td>(40,601)</td><td>(17,467)</td><td>(18,502)</td></tr><tr><td>Total comprehensive loss</td><td>(15,273)</td><td>(43,990)</td><td>(17,467)</td><td>(17,184)</td></tr><tr><td>Attributable to:</td><td></td><td></td><td></td><td></td></tr><tr><td>Owners of the parent</td><td>(13,832)</td><td>(41,069)</td><td>(16,008)</td><td>(15,417)</td></tr><tr><td>Non-controlling interest</td><td>(1,441)</td><td>(2,921)</td><td>(1,459)</td><td>(1,767)</td></tr><tr><td></td><td>(15,273)</td><td>(43,990)</td><td>(17,467)</td><td>(17,184)</td></tr></table> A detailed description of the Company's historical financial performance is included in Section 9. Past performance is not a reliable indicator of future performance. The financial position of the Company as at 31 August 2018 and the pro forma financial position as at the same date assuming Completion is set out in the table below: <table><tr><th></th><th>As at 31 August 2018 Reviewed ZAR000's</th><th>Pro forma Minimum Subscription ZAR000's</th><th>Pro forma \$5 million over subscription ZAR000's</th></tr><tr><td>Current Assets</td><td>9,343</td><td>175,570</td><td>225,158</td></tr><tr><td>Non-Current Assets</td><td>116,317</td><td>116,317</td><td>116,317</td></tr><tr><td>Total Assets</td><td>125,660</td><td>291,887</td><td>341,475</td></tr><tr><td>Current Liabilities</td><td>16,885</td><td>15,255</td><td>15,255</td></tr><tr><td>Non-current liabilities</td><td>35,889</td><td>41,473</td><td>41,473</td></tr><tr><td>Total liabilities</td><td>52,774</td><td>56,728</td><td>56,728</td></tr><tr><td>Net Assets</td><td>72,886</td><td>235,159</td><td>284,747</td></tr></table> A detailed description of the pro forma adjustments applied to the reviewed Statement of Financial Position at 31 August 2018 is included in Sections 9.7-9.9.		12 months ended 28 February 2017 Audited ZAR000's	12 months ended 28 February 2018 Audited ZAR000's	6 months ended 31 August 2018 Reviewed ZAR000's	6 months ended 31 August 2017 Reviewed ZAR000's	Revenue	1,722	2,885	1,753	1,429	Gross (loss)/profit	(405)	(598)	130	(428)	Operating loss	(23,019)	(40,102)	(17,774)	(17,099)	Loss before tax	(24,896)	(43,037)	(19,620)	(18,617)	Loss after tax	(18,662)	(40,601)	(17,467)	(18,502)	Total comprehensive loss	(15,273)	(43,990)	(17,467)	(17,184)	Attributable to:					Owners of the parent	(13,832)	(41,069)	(16,008)	(15,417)	Non-controlling interest	(1,441)	(2,921)	(1,459)	(1,767)		(15,273)	(43,990)	(17,467)	(17,184)		As at 31 August 2018 Reviewed ZAR000's	Pro forma Minimum Subscription ZAR000's	Pro forma \$5 million over subscription ZAR000's	Current Assets	9,343	175,570	225,158	Non-Current Assets	116,317	116,317	116,317	Total Assets	125,660	291,887	341,475	Current Liabilities	16,885	15,255	15,255	Non-current liabilities	35,889	41,473	41,473	Total liabilities	52,774	56,728	56,728	Net Assets	72,886	235,159	284,747	Section 9
	12 months ended 28 February 2017 Audited ZAR000's	12 months ended 28 February 2018 Audited ZAR000's	6 months ended 31 August 2018 Reviewed ZAR000's	6 months ended 31 August 2017 Reviewed ZAR000's																																																																																					
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Net Assets	72,886	235,159	284,747																																																																																						
No financial forecasts	The Company is not in a position to provide forecast future earnings as it is in an early stage of development and there are significant uncertainties associated with such forecasting.																																																																																								
What is the Company's dividend policy?	The Company does not expect to pay dividends in the near future as its focus will primarily be on using cash reserves to seek to develop its business.	Section 7.2																																																																																							

1.6. Directors and key management

Topic	Summary	Further Information
Who are the Directors of Renergen?	The Directors of Renergen are: ■ Brett Kimber (independent, non-executive Director and Chairman); ■ Stefano Marani (non-independent, Managing Director and Chief Executive Officer); ■ Nick Mitchell (non-independent, executive Director and Chief Operating Officer); ■ Fulu Ravele (non-independent, executive Director and Chief Financial Officer); ■ Dr David King (proposed independent, non-executive Director); ■ Mbali Swana (independent, non-executive Director); ■ Francois Olivier (non-independent, non-executive Director); ■ Luigi Matteucci (independent, non-executive Director); and ■ Dr Bane Maleke (independent, non-executive Director). Dr King is proposed to be appointed as a Director on the date of Listing on ASX.	Section 8.1
Who are the key executives of Renergen?	Renergen's management team is led by: ■ Stefano Marani (Chief Executive Officer); ■ Nick Mitchell (Chief Operating Officer); ■ Fulu Ravele (Chief Financial Officer); ■ Khalid Patel (Environmental Manager); ■ Mandy Stuart (Business Services Manager); ■ Johann Weideman (Project Manager); ■ Nompumelelo Msimang (Process Engineer); and ■ Robert Katzke (Operations Manager).	Section 8.2

1.7. Significant interests of key people and Related Party transactions

Topic	Summary	Further Information	
Who are the Existing Shareholders and what will be their interests on Completion?	As at the Prospectus Date, the Company had 529 Existing Shareholders.	Section 11.8	
	The following table summarises the shareholding structure of the Company prior to the Offer:		

Topic	Summary	Further Information																																																																													
What are the Directors' (including associates) shareholdings?	The Directors and proposed Director and their associates own the following Shares prior to the Offer: <table><tr><th>Name of Director</th><th>Indirect Holding</th><th>Direct Holding</th><th>Total holding</th><th>Indirect Holding %</th><th>Direct Holding %</th><th>Total holding %</th></tr><tr><td>Brett Kimber</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr><tr><td>Stefano Marani</td><td>8,703,806</td><td>258,800</td><td>8,962,606</td><td>8.69%</td><td>0.26%</td><td>8.95%</td></tr><tr><td>Nick Mitchell</td><td>8,597,139</td><td>-</td><td>8,597,139</td><td>8.59%</td><td>-</td><td>8.59%</td></tr><tr><td>Fulu Ravele</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr><tr><td>Dr David King¹</td><td>-</td><td>138,487</td><td>138,487</td><td>-</td><td>0.14%</td><td>0.14%</td></tr><tr><td>Mbali Swana</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr><tr><td>Dr Bane Maleke</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr><tr><td>Luigi Matteucci</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr><tr><td>François Olivier</td><td>9,732</td><td>-</td><td>9,732</td><td>-</td><td>0.01%</td><td>0.01%</td></tr><tr><td>Total</td><td>17,310,677</td><td>397,287</td><td>17,707,964</td><td>17.29%</td><td>0.40%</td><td>17.68%</td></tr></table> Notes: 1. Dr King is proposed to be appointed as a Director on the date of Listing on ASX. The above table does not take into account any CDIs the Directors may acquire under the Offer, nor any Options issued to Dr King under the Options Offer. Mr Olivier is an employee of Mazi Asset Management that owns 19,567,699 Shares in the Company.	Name of Director	Indirect Holding	Direct Holding	Total holding	Indirect Holding %	Direct Holding %	Total holding %	Brett Kimber	-	-	-	-	-	-	Stefano Marani	8,703,806	258,800	8,962,606	8.69%	0.26%	8.95%	Nick Mitchell	8,597,139	-	8,597,139	8.59%	-	8.59%	Fulu Ravele	-	-	-	-	-	-	Dr David King ¹	-	138,487	138,487	-	0.14%	0.14%	Mbali Swana	-	-	-	-	-	-	Dr Bane Maleke	-	-	-	-	-	-	Luigi Matteucci	-	-	-	-	-	-	François Olivier	9,732	-	9,732	-	0.01%	0.01%	Total	17,310,677	397,287	17,707,964	17.29%	0.40%	17.68%	Section 11.8
Name of Director	Indirect Holding	Direct Holding	Total holding	Indirect Holding %	Direct Holding %	Total holding %																																																																									
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What Related Party transactions exist?	The remuneration of the Directors and senior executives is set out in Sections 8.3, 8.5, 12.8 and 12.9. Renergen and Tetra4 do not have any other transactions with Related Parties.	8.3, 8.5, 12.8 and 12.9																																																																													
Tetra4's black economic empowerment compliance	Tetra4 is required to have at least 10% of its shares owned by a black economic empowerment entity. Cheryl Sjoberg owns 10% of Tetra4's shares, meeting this requirement. Renergen intends to fund Tetra4's near term cash requirements through an interest free loan on the same terms as the loan agreement summarised in Section 12.1. The loan will be repayable before Tetra4 may pay any dividends to its shareholders.	Section 12.1																																																																													

1.8. Key terms and conditions of the Offer

Topic	Summary	Further Information
Who is the issuer of the Prospectus?	Renergen Limited (the Company or Renergen).	Section 11
What is the Offer?	The Offer is an offer of CDIs to be issued under this Prospectus at a price of \$0.80 per CDI. The amount to be raised under the Offer is \$5 million, with the right to accept oversubscriptions up to a further \$5 million. The Share underlying each CDI will rank equally with Shares already on issue. A summary of the rights and liabilities attaching to the Shares is set out in Section 13.3. The Offer also includes the Options Offer, which is being offered to the Options Offerees only.	Section 11.1

Topic	Summary	Further Information
What are CDIs?	The ASX uses an electronic system called CHESS for the clearance and settlement of trades on the ASX. Renergen is incorporated in South Africa which does not recognise the CHESS system of holding securities. Accordingly, to enable companies such as Renergen to have their securities cleared and settled electronically through CHESS, depositary instruments called CDIs are issued. CDIs represent the beneficial interest in the underlying shares in a foreign company such as Renergen and are traded in a manner similar to shares of Australian companies listed on the ASX. Each CDI of Renergen will be equivalent to one Share.	
What is the purpose of the Offer?	The purposes of the Offer are to: ■ fund drilling of additional production wells, aiming to produce gas to operate the New Plant at maximum capacity; ■ fund as necessary to complete a feasibility study for the commercialisation of the high concentration helium reserves contained in the Virginia Gas Project's prospective sandstone deposit as a part of Stage Two of the expansion; ■ provide the Company with the ability to access the Australian capital market which, in conjunction with the AltX, is aimed at providing a liquid market for the Company's securities; ■ provide the Company with the benefits of an increased profile arising from being listed on ASX; ■ provide the Company with additional financial flexibility and access to capital markets; ■ pay the expenses of the Offer; ■ for the purpose of Section 708A(11) of the Corporations Act to remove any trading restrictions on the on-sale of securities to be issued by the Company pursuant to the Offer or otherwise on issue prior to the Closing Date; and ■ in relation to the Options Offer only, enable the Company to remunerate and incentivise the Options Offerees.	Section 11.2
Is the Offer underwritten?	No, the Offer is not underwritten.	Section 11.1
Is there a minimum subscription amount?	Yes. The Minimum Subscription for the Offer is \$5 million.	Section 11.3

Topic	Summary	Further Information														
What is the proposed capital structure and indicative market capitalisation of the Company following the Offer?		Key Offer Statistics														
	<table> <thead> <tr> <th></th><th>Based on Minimum Subscription</th><th>With \$5 million of over-subscriptions</th></tr> </thead> <tbody> <tr> <td>Shares at the Prospectus Date (note 1)</td><td>100,135,752</td><td>100,135,752</td></tr> <tr> <td>CDIs available under the Offer (note 2)</td><td>6,250,000</td><td>12,500,000</td></tr> <tr> <td>Shares/CDIs on issue on Completion</td><td>106,385,752</td><td>112,635,752</td></tr> <tr> <td>Indicative market capitalisation on Completion at the Offer Price (notes 3 and 4)</td><td>\$85,108,602</td><td>\$90,108,602</td></tr> </tbody> </table> Based on the above figures, the Company's free float at the time of Listing will not be less than 20%. Notes: 1. The Shares at the Prospectus Date are listed on AltX, South African resident Shareholders will not trade on ASX unless the relevant Shareholder has obtained prior approval from the South African Exchange Control Authorities to allow such trading to occur. 2. The CDIs available under the Offer will be listed on ASX. 3. The indicative market capitalisation reflects the Shares on issue on Completion multiplied by the Offer Price. 4. CDIs may not trade at the Offer Price after Listing. If CDIs trade below the Offer Price after Listing, the market capitalisation will be lower than shown. 5. The above table does not include Options over unissued CDIs proposed to be issued under the Options Offer contained in this Prospectus, details of which are set out in Section 11.5.			Based on Minimum Subscription	With \$5 million of over-subscriptions	Shares at the Prospectus Date (note 1)	100,135,752	100,135,752	CDIs available under the Offer (note 2)	6,250,000	12,500,000	Shares/CDIs on issue on Completion	106,385,752	112,635,752	Indicative market capitalisation on Completion at the Offer Price (notes 3 and 4)	\$85,108,602
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Will the CDIs be quoted on ASX?	Renergen will apply for quotation of the CDIs on ASX under the ticker code RLT. Completion is conditional upon ASX approving that application. No escrow or other restrictions on disposal will apply to any CDIs issued under the Offer. If ASX does not admit the CDIs under the Offer to Official Quotation within 3 months after the Prospectus Date, or such period as varied by ASIC, no CDIs will be issued under this Prospectus and the Company will repay all Application Monies for the CDIs within the time prescribed under the Corporations Act, without interest. The Options proposed for issue under the Options Offer are not proposed to be quoted on the ASX.	Section 11.1																																																																																																

Topic	Summary	Further Information
How is the Offer structured?	The Offer will consist of: ■ Broker Firm Offer, which is open to Australian and New Zealand resident Retail Investors who have received a firm allocation from their broker. If you have been invited to participate by your Broker, you will be treated as an Applicant under the Broker Firm Offer in respect of that allocation. You should contact your Broker to determine whether they may allocate CDIs to you under the Broker Firm Offer; ■ a General Public Offer, which is open to Retail Investors resident in Australia or New Zealand; ■ an Institutional Offer, which consists of an invitation to certain Institutional Investors in Australia, New Zealand, Hong Kong and Singapore; and ■ an Options Offer, which is open to the Options Offerees only. The allocation of CDIs between the Broker Firm Offer, the General Public Offer and the Institutional Offer will be determined by the Company and the Lead Manager, having regard to the allocation policies set out in Section 11.5. For the Broker Firm Offer, it will be a matter for each Broker how it allocates CDIs among its clients.	Sections 11.1 and 11.6
What rights and liabilities attach to the securities offered?	The Shares underlying the CDIs will rank equally with the Shares currently on issue in the Company. A description of the CDIs and the underlying Shares, including the rights and liabilities attaching to them, is set out in Section 13.3. The Options offered to: ■ the Lead Manager are to be issued on the terms summarised in Section 13.6; ■ the Corporate Adviser are to be issued on the terms summarised in Section 13.7; and ■ Dr King are to be issued on the terms summarised in Section 12.9.	Section 13.3
Is there any brokerage, commission or stamp duty payable by Applicants?	No brokerage, commission or stamp duty is payable by Applicants on the acquisition of CDIs or Options under the Offer.	Section 11.4
What are the costs of the Offer and who is paying them?	The Offer costs include the Lead Managers' offer management fees, broker fees and legal, accounting, advisory and other costs associated with the preparation of this Prospectus. At the Prospectus Date, these cash costs are estimated to be approximately \$1,389,000 at the Minimum Subscription of \$5 million. If oversubscriptions of \$5 million are accepted, an additional \$300,000 in cash costs will be incurred. The Company is paying these costs from existing cash reserves and from the proceeds of the Offer. As at the Prospectus date, \$0.6 million has been paid.	Sections 11.4 and 13.11
What are the tax implications of investing in the CDIs?	A summary of certain Australian and South African tax consequences of participating in the Offer and investing in the CDIs is set out in Section 13.12. The tax consequences of any investment in the CDIs will depend on an investor's particular circumstances. Applicants should obtain their own tax advice prior to deciding whether to invest.	Section 13.12
When will I receive confirmation that my Application has been successful?	Holding statements and confirmation advices confirming Applicants' allocations under the Offer are expected to be sent to successful Applicants on or around 28 May 2019.	Section 11.4

Topic	Summary	Further Information
What is the minimum Application size under the Offer?	Applications must be for a minimum of \$2,000 worth of CDIs. There is no maximum amount that may be applied for by an Applicant under the Offer. The Company, in consultation with the Lead Manager, reserves the right to reject any Application or to allocate a lesser number of CDIs than that which is applied for. There are no minimum Applications under the Options Offer, as those offers will involve fixed numbers of securities.	Section 11.4
Who is eligible to participate in the Offer?	Eligible investors are Retail Investors who are resident in Australia and New Zealand, as well as Institutional Investors in Australia, New Zealand and certain other jurisdictions as determined by the Company in consultation Lead Manager. All Retail Investors must have an eligible residential address in Australia or New Zealand.	Section 11.1
How do I apply for CDIs?	Please see Section 11.4 for details as to how you can apply under the Offer (for the General Public Offer, this includes applying online or by completing a physical Application Form). If you are an investor applying under the Broker Firm Offer, you should complete and lodge your Broker Firm Application Form with your Broker from whom you received your firm allocation. Broker Firm Applicants must complete their Broker Firm Application Forms in accordance with the instructions given to them by their Broker and the instructions set out on the reverse side of the Broker Firm Application Form. In respect of the Institutional Offer, the Broker or Lead Manager has separately advised the Institutional Investors of the Application procedure.	Section 11.4
How do I pay?	If you are an Applicant under the General Public Offer, you should pay the Application Monies using one of the following methods: ■ by BPAY®: by following instructions on the online Application Form. This is the preferred method of payment; or ■ by cheque: cheques should be crossed "Not Negotiable" and made out to "Renergen Limited". If you are an Applicant under the Broker Firm Offer, all Application Monies must be dealt with in accordance with the instructions given by your Broker and the instructions set out on the reverse of the Application Form for the Broker Firm Offer. In respect of the Institutional Offer, the Broker or Lead Manager has separately advised the Institutional Investors the payment procedure.	Section 11.4
What is the Closing Date for receipt of Applications?	The Offer is expected to close on 22 May 2019 (Closing Date). The Company may without notice, elect to close the Offer early, extend the Offer, or accept late Applications either generally or in particular cases. You are encouraged to submit your Application and Application Monies as early as possible in advance of the Closing Date and allow a sufficient period for processing time.	Section 11.4
Can the Offer be withdrawn?	Yes. The Company may withdraw the Offer at any time before the issue of CDIs under this Prospectus. If the Offer does not proceed, all relevant Application Monies will be refunded (without interest).	Section 11.7
Where can I find more information about this Prospectus and the Offer?	If you are unclear in relation to any matter or are uncertain as to whether the Company is a suitable investment for you, you should seek professional guidance from your solicitor, stockbroker, accountant or other independent and qualified professional advisor before deciding whether to invest. For more information, call the Renergen Offer Information Line on 1300 140 590 (within Australia) or +61 3 9415 4109 (from outside Australia) between 9.00am and 5.00pm (Sydney time), on Monday to Friday (Business Days only).	Section 11

2. THE COMPANY AND ITS BUSINESS

2.1. Introduction

Renergen is an emerging producer of helium and LNG, with existing production and sales of CNG. Renergen's natural gas is a renewable resource, since it is produced by living microbial organisms.

The Company's business focus is on the commercialisation of the Virginia Gas Project which has significant reserve estimates of both helium and natural gas. Renergen's principal investment and 90% owned subsidiary, Tetra4, holds the first and only onshore production right in South Africa. The gas fields are situated in an energy scarce area, with high customer density and limited competition, and contains one of the richest Helium concentrations recorded globally.

The expansion of the Virginia Gas Project to produce helium and LNG will be undertaken in stages. Stage One involves connecting 12 existing economically viable gas wells to a new gas pipeline and constructing the New Plant, for the production of helium and LNG. Contractual award of the New Plant is intended by June 2019, with completion and commissioning within 21 months. The New Plant will have a maximum daily production capacity of 74.6 mcf (or about 350 kg) of liquid helium and 2,700GJ (or about 50 tons) of LNG. The New Plant has been designed to be scalable, to support the anticipated growing demand for helium and LNG.

Tetra4 has obtained all regulatory approvals required for the Stage One expansion including obtaining an Environmental Authorisation. Stage One is fully funded as a result of the Company completing a rights issue in November 2018 that raised ZAR125 million (or about \$11.8 million) and the committed debt funding of US\$40 million (or about \$56.3 million) from OPIC. The conditions to OPIC's committed debt funding include execution of formal agreements on or prior to 30 September 2019.

Renergen will commence the Stage One of the expansion regardless of whether the Minimum Subscription is raised.

The funds raised under the Offer will primarily be used to fund the drilling of additional production wells in Tetra4's proven gas reserves, aiming to produce gas to operate the New Plant at maximum capacity. The funds will also be used to partially fund a feasibility study for the commercialisation of the high concentration helium reserves contained in the Virginia Gas Project's prospective sandstone deposit.

Subject to the outcome of this study, Tetra4 intends to proceed with Stage Two, being the commercialisation of these high concentration helium reserves.

2.2. Overview

The expansion of the Virginia Gas Project is underpinned by:

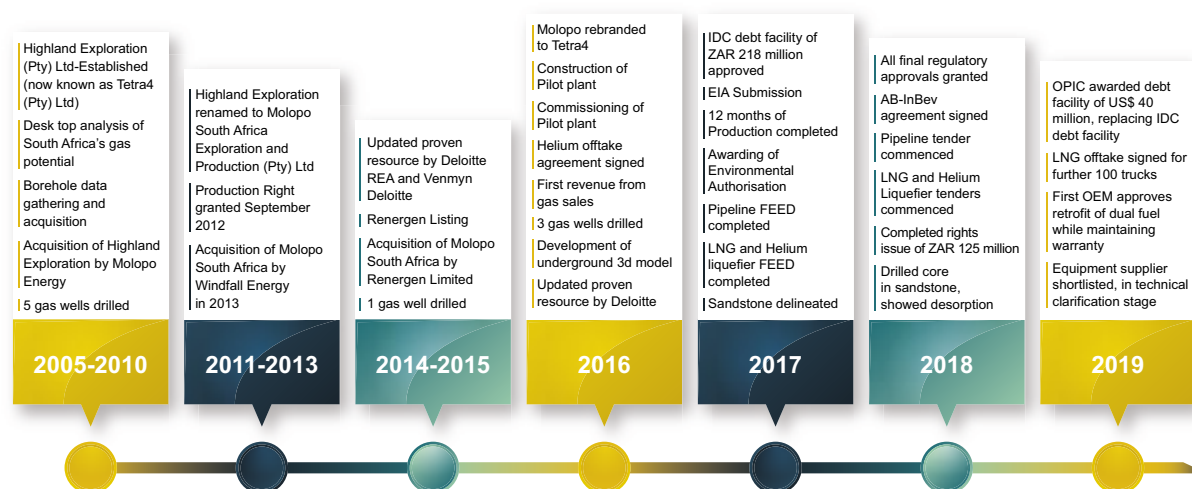
- the first and only onshore petroleum production right in South Africa, giving Tetra4 first mover advantage on the distribution of LNG in South Africa;
- a fully termed take-or-pay helium offtake agreement with Linde Global Helium to satisfy consumption in South Africa, up to a maximum annual volume of 24,000 mcf;
- a ready domestic market for its LNG product, having entered into gas sales agreements with Megabus, Anheuser-Busch and Black Knight Logistics;
- helium reserves (3P) of 6.86 Bcf and contingent helium resources of between 7.9 Bcf and 20.9 Bcf, with one of the richest helium concentrations recorded globally (average 3.4%, with helium becoming economically viable to extract from natural gas at concentrations as low as 0.1%);
- methane gas reserves (3P) of 284.18 Bcf, methane contingent resources of between 237.3 Bcf and 648.5 Bcf, and prospective resources of between 640 Bcf and 2,069 Bcf, with high purity of the natural gas resource (average 90% methane) and almost zero higher alkanes (which reduces the complexity of LNG production);
- 12 existing economically viable wells, which under Stage One of the expansion simply need to be connected to the New Plant, with no additional drilling required;
- all regulatory approvals required to move into full scale production;
- the engineering design of Stage One has been completed, with turnkey contracts for procurement of liquefiers and the pipeline expected to be awarded in June 2019;
- significant exploration upside, with the Virginia Gas Project production right covering 187,427 hectares under a 23-year remaining term, as well as Tetra4's additional onshore petroleum Evander Exploration Right in South Africa; and
- an experienced management team with a strong track record in natural gas project development.

The uses, sources of competition and market for the Company's proposed liquid helium and LNG products are explained in the Independent Market Reports on the Global Helium Industry and on the natural gas market in South Africa set out in Sections 3 and 4.

2.3. Company and Project Evolution

The following major milestones have been achieved throughout the lifecycle of Renergen and the Virginia Gas Project:

Table 1: Major Milestones of Renergen and the Virginia Gas Project



2.4. Strategic Focus

Renergen's strategy is to develop the Virginia Gas Project and begin exploring the Evander Exploration Right. Renergen may then seek additional opportunities in the upstream helium and natural gas sector to complement its growth strategy.

If Tetra4 is able to develop the South African LNG market, Renergen will look for opportunities to consolidate similar early stage natural gas fields with the ambition of building a large-scale South African natural gas company with diversified revenue streams.

2.5. Overview of the planned expansion of the Virginia Gas Project

The expansion of the Virginia Gas Project is to be undertaken in stages.

CNG Plant – completed

The CNG Plant, already completed and commissioned, produces up to 200 GJ per day of gas from one well and includes a compression station, mobile storage units and a dispensing station at the site of Tetra4's customer, Megabus, which has been successfully trialling replacement of diesel with Tetra4's CNG product in its buses since May 2016. Megabus has more than 220 buses in proximity to Tetra4's operations.

The 10 buses used in the trial have travelled over 1.6 million kilometres without incident, while reducing bus running costs and greenhouse gas emissions by over 2.2 million kilograms since the trial began.

Tetra4 entered into a gas sales agreement with Anheuser-Busch in May 2018 for the supply of CNG in Johannesburg for 15 trucks. Supply of CNG under this agreement is expected to commence in H1 CY2019, and supply of LNG for 50 trucks is expected to commence once the New Plant becomes operational.

Tetra4 has also entered into an agreement with Black Knight Logistics for the supply of LNG to 100 trucks when the New Plant becomes operational.

Once the New Plant is operational, CNG production will cease at the Virginia Gas Project and will be replaced with LNG. If exploration results, regulatory approvals and other project dependencies support it, it is possible that in the medium term Tetra4 may be able to relocate the CNG Plant to its Evander Exploration Right, with the eventual aim of supplying local bus operators with CNG.

Stage One – the New Plant

Stage One of the Virginia Gas Project expansion involves connecting 12 gas wells to a new gas pipeline and constructing the New Plant to produce helium and LNG, which will have a maximum daily production capacity of 74.6 mcf (or about 350 kg) of liquid helium and 2,700GJ (or about 50 tons) of LNG.

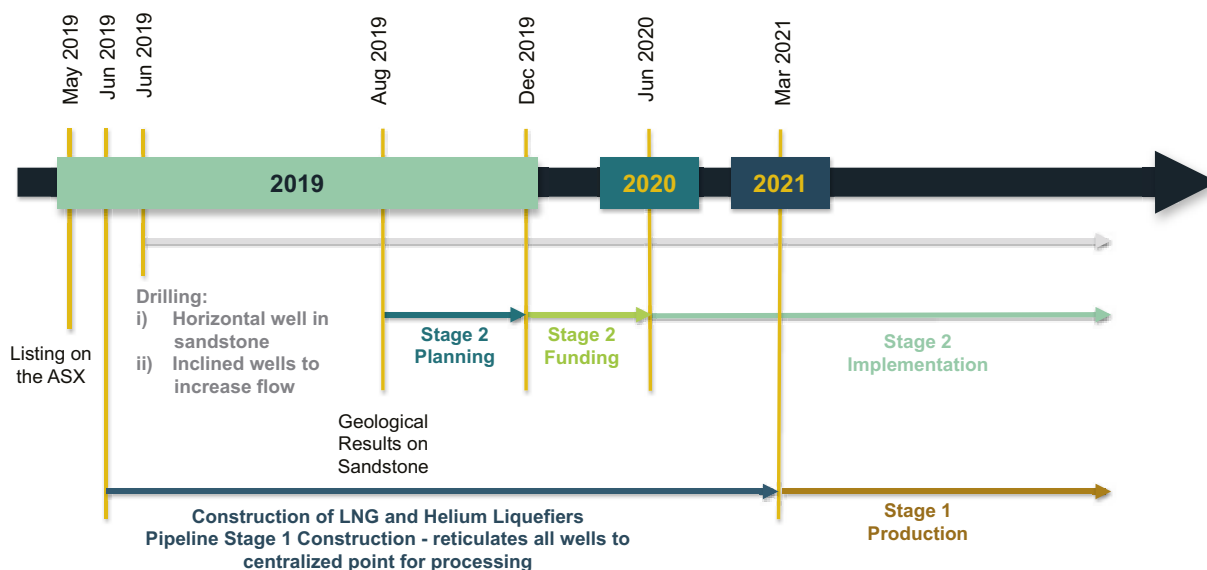
Contractual award is expected by June 2019, with completion and commissioning expected to occur within 21 months. The capital expenditure budget, excluding additional drilling, is \$49.28 million which is to be funded by the proceeds of the OPIC committed facility of US\$40 million (or about \$56.3 million) and existing cash reserves.

The capital expenditure budget contains the following key items:

Capital Expenditure	\$million
Construction of LNG and helium liquefiers	31.78
Pipeline Stage One Construction – reticulates all wells to centralised point for processing and balance of plant	17.50
Total	49.28

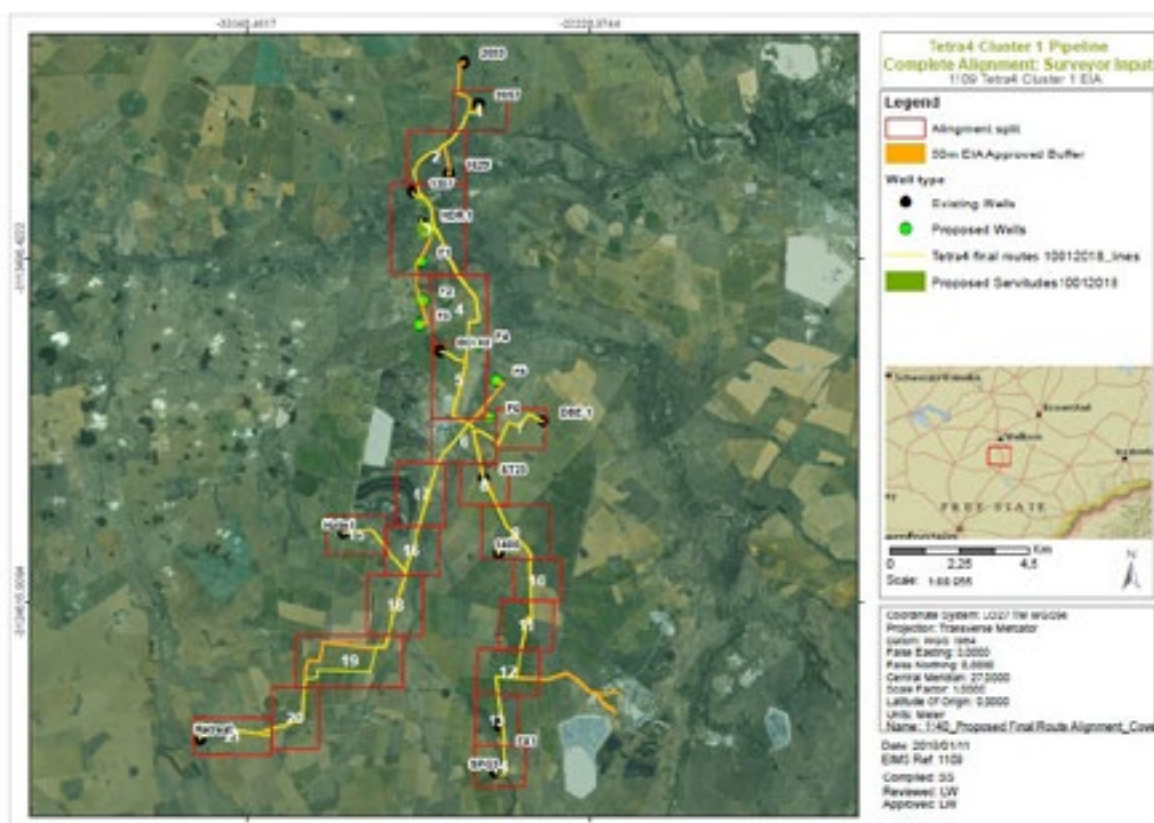
The indicative timeline for the proposed expansion of the Virginia Gas Project is as follows:

Table 2: Indicative timeline



The route for the pipeline to be constructed in Stage One is as follows:

Table 3: Information on Pipeline



The proceeds of the Offer will be used to drill additional production wells in the proven reserves along the main north-south fault line in order to bring the gas stream feed to the New Plant, aiming to operate it at its maximum capacity.

Stage Two – High Concentration Helium Production

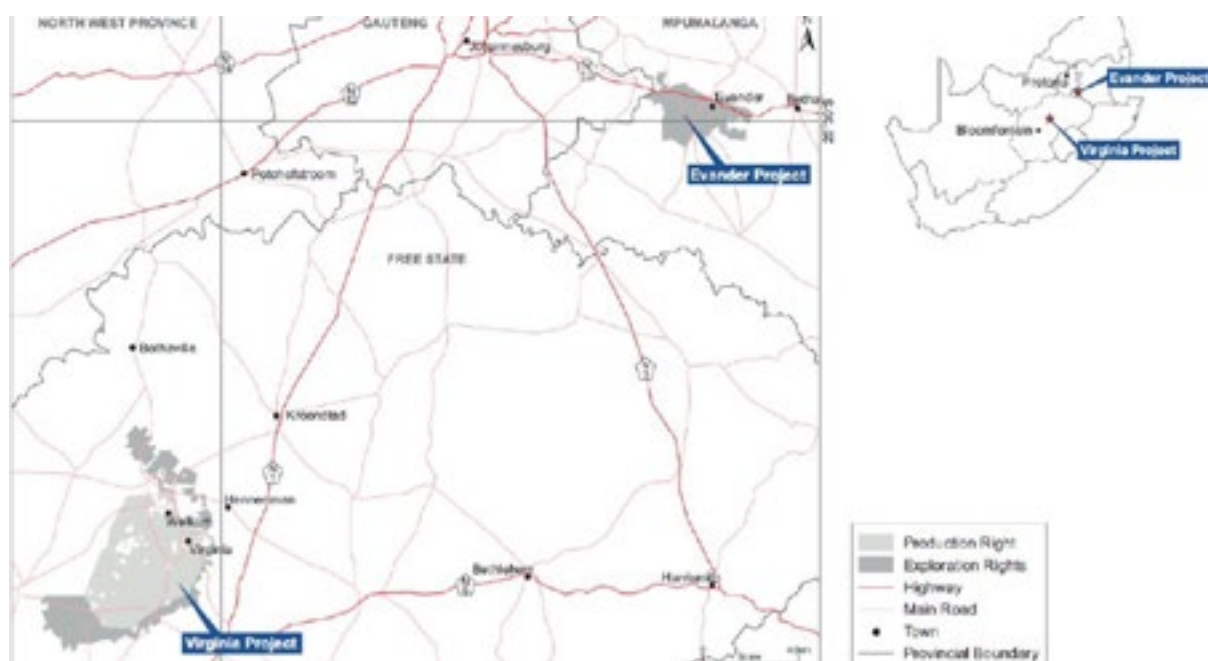
Should the exploration of the Virginia Gas Project's prospective sandstone deposit prove feasible, Stage Two will involve the drilling and connection of horizontal wells to a high-pressure pipeline to the New Plant, where a far larger helium and LNG facility will be built. Stage Two will be funded as a new project and is expected to be undertaken over 3 to 4 years.

Evander Exploration Right

Tetra4's Evander Exploration Right is located 120 km east of Johannesburg and covers approximately 55,000 hectares. Although Tetra4 has not commenced any drilling, there are existing drill holes drilled by others exploring for minerals, rather than petroleum, two of which produce natural gas. The Evander Exploration Right also has a significant number of additional sites that show indications of natural gas.

The natural gas indications at the Evander Exploration Right are similar in composition to the gas produced at the Virginia Gas Project, in that they have almost zero higher alkanes. However, the helium concentrations are significantly lower at around 0.5% (which Renergen still considers significant). Tetra4 intends to carry out additional exploration at the Evander Exploration Right in late 2020.

Table 4: Information on Evander Exploration Right



2.6. Virginia Gas Project - Geology

The Virginia Gas Project surrounds are primarily known for their gold, uranium and coal bearing geology. Various gold and coal mining companies are currently operating mines within the Virginia Gas Project area. This is not expected to adversely affect Tetra4's proposed operations as the gold mining occurs at over 2 km below the surface, whereas Tetra4's existing and expected future wells have a maximum target depth of 750 metres. The area over which gold mining occurs is also very limited as a proportion of the total area of the Virginia Gas Project.

The source of the Virginia Gas Project's natural gas is primarily microbial. It originates from deep within the Witwatersrand Supergroup, via groundwater circulating through large faults and contacting bacteria deep within the earth's crust. Thus, the methane is a biogenic and a continuing renewable resource.

The helium, as with almost all helium around the world, is either derived from the mantle (that is, from deep within the earth) or from the decay of radioactive minerals within the earth's crust. As the helium moves up the large faults, it mixes with the microbial methane in the deep subsurface. Due to the origin and composition of the gas and the underlying geology, seismic and electromagnetic surveys have not yielded relevant results. Tetra4 has acquired significant borehole data from earlier mineral explorers, enabling it to develop a detailed 3-dimensional underground geological model of the faulting, sills and dykes, all of which are carriers of the gas.

The geological model has been used to determine drill targets and is detailed enough to provide coordinates, direction and entry azimuth to intersect targeted structures.

The low-pressure nature of the Virginia Gas Project has allowed the use of simple drilling techniques (such as percussion drilling and diamond coring) to a target depth of 400m to 750m below surface, without the need to stimulate wells further. The process has a lighter environmental impact and is relatively cost effective when compared to usual conventional and unconventional petroleum exploration.

Additional information on the geology is contained in the Reserve and Resource Evaluation Report in Section 5.

2.7. Reserves and Resources – Tetra4

Tetra4 has discovered commercial helium reserves of 6.86 Bcf and contingent helium resources of between 7.9 Bcf and 20.9 Bcf, with one of the richest helium concentrations recorded globally (average 3.4%, with helium becoming economically viable to extract from natural gas at concentrations as low as 0.1%).

Tetra4 also has discovered commercial methane gas reserves of 284.18 Bcf, methane contingent resources of between 237.3 Bcf and 648.5 Bcf, and methane prospective resources of between 640 Bcf and 2,069 Bcf, with high purity of the natural gas resource (average 90% methane) and almost zero higher alkanes (which reduces the complexity of LNG production).

Detailed information about Tetra4's helium and methane gas reserves and resources is contained in the Reserve and Resource Evaluation Report in Section 5.

2.8. Government Permits and Authorisations

Tetra4 has obtained all regulatory approvals required for stage one of the proposed expansion of the Virginia Gas Project, including obtaining the Environmental Authorisation on 29 September 2017.

2.9. Distribution of LNG

Tetra4 will sell its LNG product to domestic consumers, targeting primarily the South African transport industry in which it has established relationships with customers.

Tetra4 will distribute its LNG via modular mobile refuelling facilities, which Tetra4 will locate on vacant land to be leased on established trucking routes. The technology for these facilities is very common, allowing Tetra4 the benefit of selecting between many suppliers and on short notice.

Tetra4 proposes to rollout mobile refuelling facilities sufficient to distribute its expected medium-term production capacity.

To expedite the rollout process, Tetra4 proposes to locate refuelling facilities along South Africa's major motorways:

- ☐ Johannesburg to Cape Town (via Bloemfontein);
- ☐ Johannesburg to Durban;
- ☐ Johannesburg to Port Elizabeth;
- ☐ Cape Town to Durban;
- ☐ Durban to Bloemfontein; and
- ☐ midway Bloemfontein / Cape Town.

Several truck manufacturers in South Africa have commenced marketing dedicated LNG trucks to their customers in anticipation of the Virginia Gas Project.



2.10. Processing and production – LNG

The New Plant will be located directly adjacent to Tetra4's current facility. The location will therefore be able to share already installed infrastructure which was built for the CNG operation, which includes but is not limited to:

- ☐ the road joining the New Plant and the main road;
- ☐ already cleared acreage for construction;
- ☐ access to borehole and municipal water;
- ☐ access to the piping system for the well-used for the current CNG operation;
- ☐ access to existing safety and security systems;
- ☐ large vacant land ideal for the construction of a solar park to reduce reliance on the local power utility;
- ☐ access to parking facilities for equipment; and
- ☐ access to existing gas generators for power.

The total footprint will cover less than 12,000 square metres, ignoring the solar park, and is scalable to account for additional flow by the introduction of additional modules which individually occupy very little space. Modularisation also means that expanding capacity begins to enjoy economies of scale, as expansion does not require an entire new plant, only components.

Process description

The pipeline will be connected to all the well heads, where flow meters will communicate with the main system informing Tetra4 which wells are operating at optimum capacity, as well as ensuring that the mass-flow balances are matched.

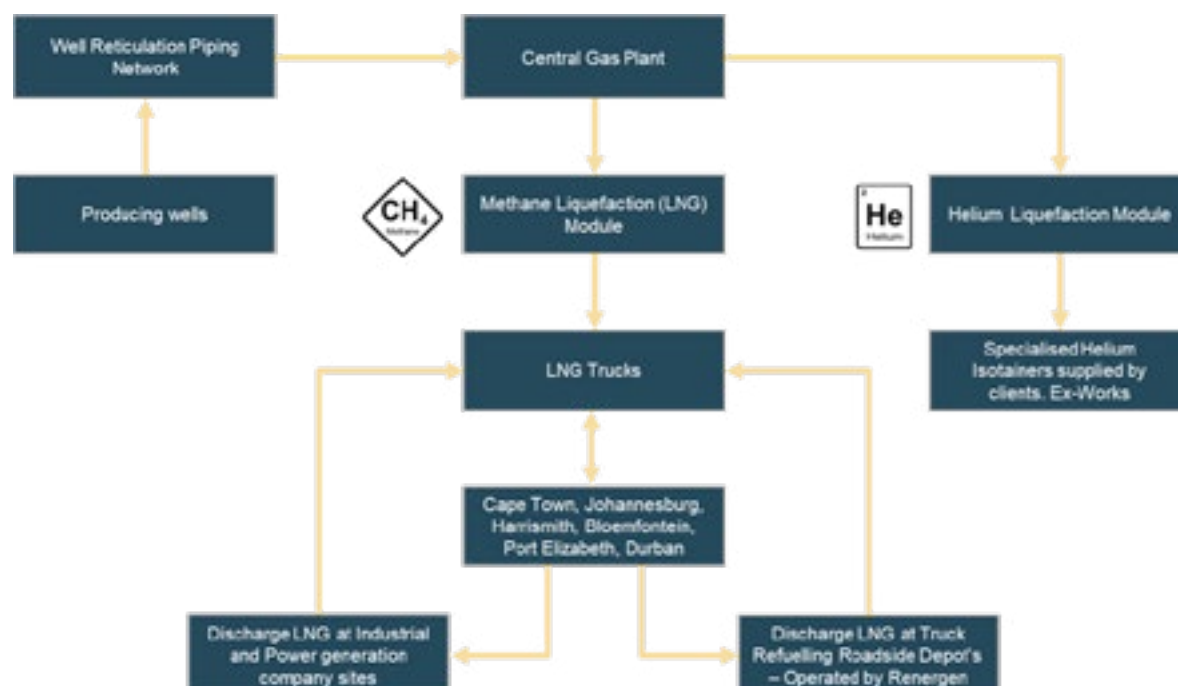
Every well will be fitted with its own valve, enabling Tetra4 to decide the helium/methane blend in order to match LNG demand.

Once the gas has moved through the pipeline through booster stations to maintain flow and pressure, the gas will arrive at the New Plant for pre-treatment. The process flow is as follows:

- ☐ filtering for particles;
- ☐ booster compressor pressure to 50bar – CO₂ removal by a traditional amine wash;
- ☐ the spent amine is then recycled in a closed regeneration tower;
- ☐ additional filtering to capture smaller particles, and to remove hydrogen and neon;
- ☐ mixed refrigerant cycle cooler drops gas to below -161 degrees Celsius, liquefying the methane to produce LNG, which then flows into a storage tank;
- ☐ the remaining gas is boosted in a low temperature compressor to feed the helium cold box;
- ☐ the helium cold box then uses the helium as the refrigerant to super cool the gas to liquefaction point at -269 Celsius - this is achieved using the Joule-Thomson effect of rapid expansion of helium to cool, rapid re-compression and dissipating the heat from compression using liquid nitrogen, and then rapidly re-expanding the helium. In the process, the residual nitrogen in the gas liquefies at -196 Celsius, is removed from the system and is used for cooling the re-compression of helium. This cycle continues until the helium is liquid; and
- ☐ the liquid helium and LNG are then dispensed into 40 Ft ISO-containers and transported to market.

The broader process flow and sales cycle is represented diagrammatically as follows:

Table 5: Plant Flowsheet and Sales Cycle



Operating schedules

The New Plant is designed to run with a minimum 95% uptime availability per annum. Tetra4 will make use of power line communication, Supervisory Control and Data Acquisition, human-machine interface and internet of things technology throughout the plant and integrate it into a single control room for the effective operation and control of the pipeline, LNG plant and liquid helium plant. The New Plant is designed with full automation in mind and will embrace internet of things technology for seamless integration into our enterprise resource planning and quality management system. This means that Tetra4 can expect to significantly reduce the amount of staff required to operate the New Plant. As such, Tetra4 plans to run 4 small teams on 8 hour rotating shifts. The teams will be supported by a dedicated operations and maintenance team.

Engineering partner

Tetra4 completed the Front-End Engineering and Design (FEED) in early 2018 and began preparing separate competitive bidding processes for both the gas gathering pipeline and the New Plant. VGI Consulting Proprietary Limited has been appointed to act as the owners engineer representative throughout the process and will be retained during execution in a similar function. They are considered by the Board to be a leading South African consulting engineering firm in multiproduct petrochemical overland distribution pipelines.

The board expects that the bidding process will culminate in the awarding of the pipeline contract on an Engineer, Procure and Construct turnkey project under the contractual terms based on the standard terms issued by the International Federation of Consulting Engineers, thus reducing the risk of unforeseen contingencies.

While the evaluation of technology and commercial offering of the New Plant is nearing completion and will be announced when contractual negotiations are completed, it is likely that the contracting philosophy will be handled in a similar manner to that of the pipeline.

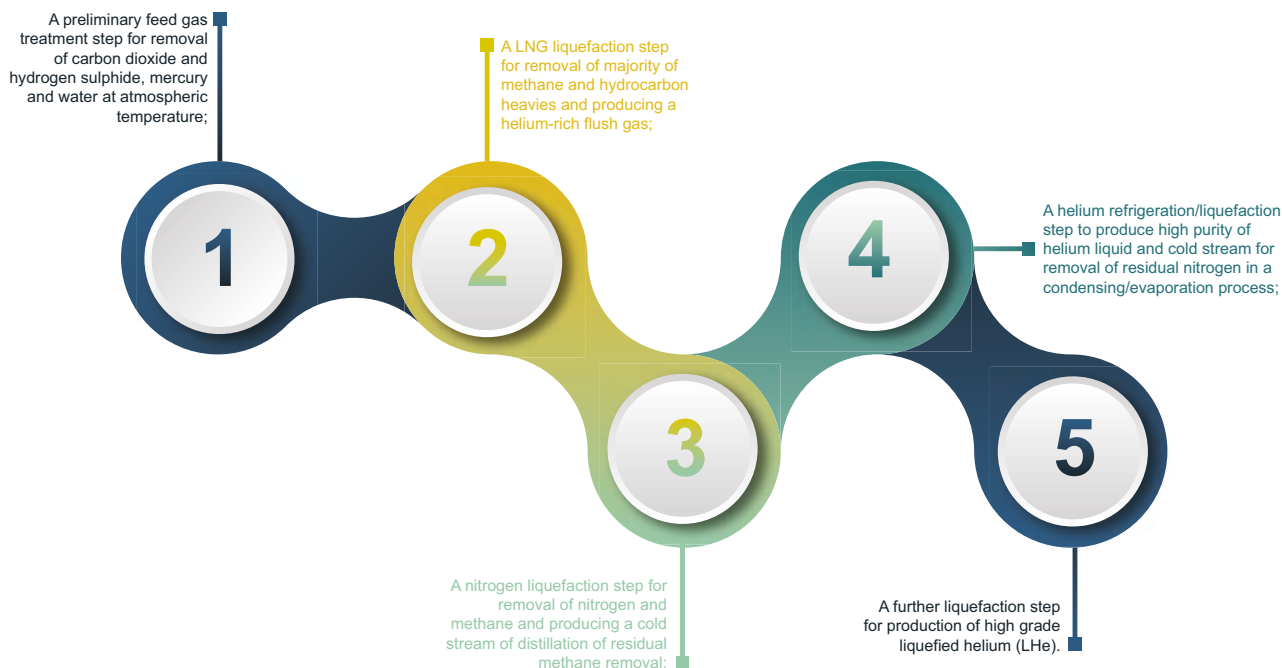
2.11. Processing and production - Helium

Helium is usually produced as a by-product of natural gas processing. Natural gas contains methane and other hydrocarbons, which are the principal sources of heat energy when natural gas is burned. Most natural gas deposits also contain smaller quantities of nitrogen, water vapour, carbon dioxide, helium, and other non-combustible materials, which lower the potential heat energy of the gas. In order to produce natural gas with an acceptable level of heat energy, these impurities must be removed.

In processing Tetra4's helium, the natural gas will be reticulated to the New Plant by a network of gathering pipelines. The pipeline is designed to operate at low pressure, and has also been sized to cater for significant growth and additional capacity along the main trunk line. Renergen expects only feeder lines to be required from the wellheads of the new wells that will be drilled during stage two of the proposed expansion of the Virginia Gas Project.

Once the gas arrives at the central processing facility, it will be dried and all particles and residual contaminants (if any) removed. The gas will then enter the cryogenic LNG and liquid helium processing facility.

In general, the cryogenic processes from helium-bearing natural gas reserves comprise several distinct operative stages, these include:



Steps (1) and (2) are processes completed in the LNG plant while steps (3), (4), and (5) are the processes in the helium plant.

2.12. Cost structure

Tetra4's model is to maintain a low-cost structure. This begins at the wellhead, where Tetra4 expects to produce raw natural gas at costs lower than most gas producers, given the low cost of drilling and extraction due to Virginia Gas Project's regenerative nature.

Tetra4's midstream operation is designed with the intention of being low cost to build and maintain, opting for high density polyethylene over steel, adding only marginal cost per GJ for production. Tetra4's processing has been tailored to its high helium concentration, so Tetra4 enjoys significant economies of scale on power consumption in the cryogenics process – more so than would a company with little to no helium concentration.

Staffing is expected to remain small and in the near term the Company expects to have at most 40 employees.

Electricity for the liquefaction process is a meaningful cost. Tetra4 has investigated using its own natural gas to generate electricity to power the New Plant, but considers that such a strategy is not ideal for two reasons:

- the opportunity cost of burning the gas instead of selling it exceeds the input cost of electricity; and
- the helium contained in the gas used in the generators would not be recoverable.

Tetra4 is tendering the supply of day-time power to the Virginia Gas Project through a solar park, to be constructed adjacent to the New Plant. The New Plant will use solar power for day-time production and Eskom supply for night-time power with diesel generators as back-up. It is envisaged that the power generated from the solar park will be supplied to Tetra4 under a power purchase agreement.

2.13. Target Market Segment

South Africa had 377,090 registered trucks as at 31 December 2018.

These vehicles typically consume between 6 and 16 GJ of diesel per day. In a diesel/LNG dual fuel scenario, that would require between 3 and 8 GJ of LNG per truck per day. 1% of the market alone would require between 11,000 and 29,000 GJ per day. In addition to the heavy trucks, as at 31 December 2018 South Africa had 2,557,873 light load vehicles, 64,653 buses, 7,340,787 passenger vehicles and 330,023 minibuses.

Compared with LNG, there has been a relatively larger take up of the use of CNG in vehicles globally. However, CNG's volumetric is 42% that of liquefied natural gas (because it is not liquefied), and 25% that of diesel fuel. It is for this reason that Tetra4 has opted to move to liquefaction and produce LNG for the local trucking market, since it will offer its customers longer vehicle range. The technology to use CNG and LNG in internal combustion engines is identical, the only difference being the storage tanks on the vehicle. Tetra4 believes its customers will see the longer range offered by LNG as a clear benefit of using LNG, compared with CNG.

Tetra4 has established relationships with several large energy intensive customers in anticipation of providing significant volumes of LNG.

The following non-exhaustive list represents prospective customers with whom Tetra4 has already commenced commercial negotiations in respect of possible supply agreements.

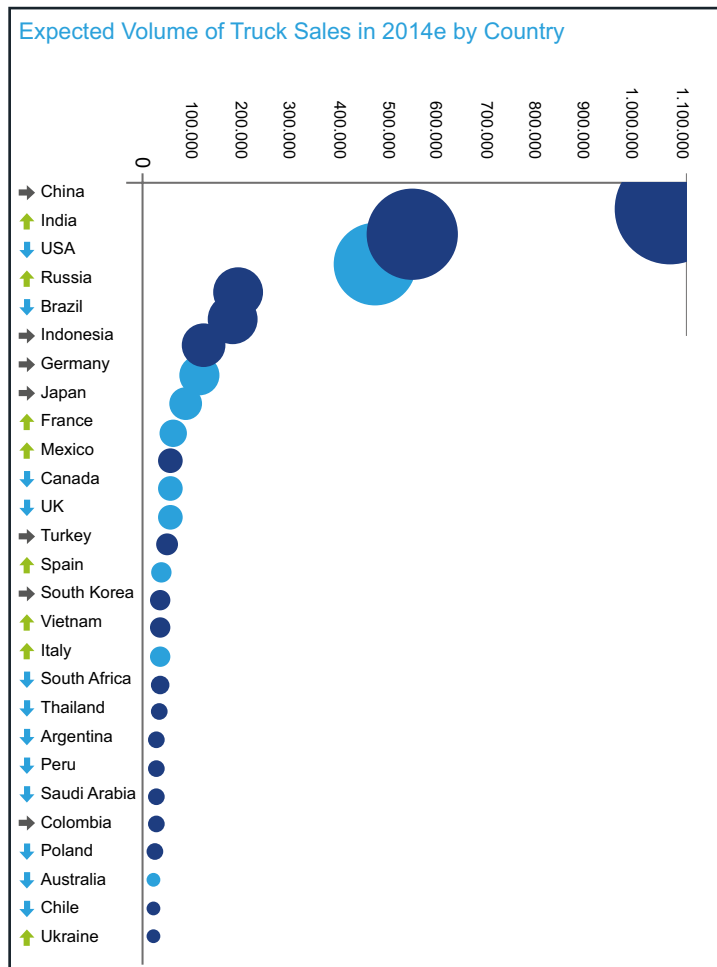


Table 6 – Prospective customers and potential market –GJ per day

Industry	Use of LNG / CNG	Potential market – GJ per Day	Earliest Start of Sales
Logistics	Trucks (CNG)	60	May 2019
Food Producer	Power and Steam	450	Q1 2021
Food Producer	Cookers (LNG)	500	Q1 2021
Automotive	Paint shops (LNG)	500	Q1 2021
Automotive Spares	Paint shops (LNG)	125	Q1 2021
Beverage	Trucks (LNG)	500	Q1 2021
Mining	Dump trucks (LNG)	1,000	Q1 2021
Mining	Dump trucks (LNG)	1,000	Q1 2021
Logistics	Trucks (LNG)	500	Q1 2021
Logistics	Trucks (LNG)	80	Q1 2021
Logistics	Trucks (LNG)	250	Q1 2021

This potential market exceeds Tetra4's initial production capacity from the New Plant of 2,700 GJ per Day and as such Tetra 4 expects to award allocations to customers on a first-come-first served basis.



Independent Market Report on the Global Helium Industry



26 February 2019

The Directors
Renergen Limited
First Floor
1 Bompas Road
Dunkeld West
Johannesburg 2196
Republic of South Africa

Dear Directors,

Edison has prepared the following Independent Market Report on the global helium market at the request of Renergen Limited for inclusion in a prospectus in connection with its proposed IPO and associated listing on the ASX. The report is based on analysis Edison carried out in late 2018 and summarised in its report entitled "Helium – Macro View" published via its website on 25 February 2019. A copy of this report can be obtained free of charge at

<http://www.edisoninvestmentresearch.com/research/sector>.

Where appropriate, this Independent Market Report refers to data and statistics released following publication of our 25 February 2019 report. We note in this report when our conclusions are based on previous data sources.

Yours sincerely,

Ian McLelland
Global Head, Natural Resources
Edison Investment Research

Independent Market Report on the Global Helium Industry

Introduction

Edison Investment Research Limited (**Edison**) was instructed by the Directors of Renergen Limited (**Reenergen** or the **Company**) to prepare an Independent Market Report on the Global Helium Industry (**Report**) for inclusion in a prospectus to be lodged with the Australian Securities & Investments Commission on or around 8 May 2019, and any replacement or supplementary documents required to be subsequently lodged (**Prospectus**) in support of the proposed initial public offering (**IPO**) and associated listing of the Company on the Australian Securities Exchange (**ASX**).

About Edison

Edison is an independent market research and advisory company with offices in North America, Europe, the Middle East and Asia Pacific. Founded in London in 2003, Edison now employs over 110 staff globally, of which approximately 80 are analysts and support staff. Edison published over 2,500 reports in 2017, and our research is read in over 100 countries.

Edison has undertaken a number of market studies in the natural gas sector, including a macro view of the global helium market that was commissioned by another of Edison's research clients. This Report has largely been based on the previous macro view which can be accessed from Edison's website at <http://www.edisoninvestmentresearch.com/research/sector>.

In preparing this Report, Edison has relied on information derived from reputable publicly available sources and industry publications. All effort has been made by Edison to ensure that the information in this report is accurate and appropriate at the time of writing. Conclusions and assumptions attached to those conclusions are based on Edison's investigations and analyses of the facts as they are known at the date of this report and Edison is of the opinion that the conclusions and underlying assumptions are reasonable. However, Edison has not independently verified these facts and as such we make no representation as to the accuracy or completeness of the information. Therefore, investors are cautioned not to place any undue reliance on the information including statistics and estimates set out in this section.

Key findings of the report

Supply is constrained and deficits are likely

Helium is a vital and irreplaceable element in many critical modern components industries. The era of supply being underwritten by the drawdown of US strategic reserves is nearly over, and replacing this supply is not straightforward. New (medium-term) supply is largely as a by-product of planned oil and gas mega projects that are often delayed. While a number of companies have emerged in recent years (mostly in Western US and Canada), almost all are at the pre-drill stage or focused on projects with limited scale. Many have announced ambitious plans, but few have progressed to proving up gas resources, which will take time. The time, effort and costs to secure the property rights and leases also contribute to the barriers to entry.

Helium supply is structurally fragile, as an outage of one supplier (of the limited number of) could have outsized effects. The impact of the 2017 Qatar blockade seems to have been contained as a new route was found quickly, but the underlying tensions in the region remain. Other major sources (such as Hugoton or the BLM storage) are now at/towards the end of their lives and it is not clear how the reservoirs will react to increasingly low pressures. It is possible that the fields will decline far faster than we model and that the reserves estimated will not be recovered fully.

Few projects will come on line in the next three to four years, putting increased stress on the market as the sale of stocks in the US strategic reserve finally ends (held in the Cliffside field, operated by the Bureau of Land Management, BLM).

All fields/plants will need to go down for periodic maintenance. As information about periodic maintenance is not publicly disclosed, it is possible that one of the large suppliers may reduce volumes markedly in coming periods, which could affect the market.

There is little potential for existing projects to expand materially and although a number of small helium exploration companies have announced grand plans, few have proven reserves of the size that would materially move the needle in the event of supply delays from Qatar and Russia.

Opaque and oligopolistic supply impedes easy analysis

While it is estimated that there is plenty of helium in the world, the accessibility and commerciality of these reserves are more complex. Reserve replacement of helium has been very poor and hampered by a number of factors:

- helium is scarce and generally found within conventional natural gas reservoirs in small concentrations (<0.5%), making helium a valuable by-product as long as the gas is profitable to extract. In the past, this has meant that upstream companies had no strong incentive to negotiate high prices for helium, while in recent years depressed gas prices (particularly in the US) have discouraged development of conventional natural gas fields;
- prices of helium have arguably been kept artificially low by the large-scale, well-publicised selloff of the US strategic reserve to a limited number of buyers that gave mid/downstream companies a reliable supply over the last 10 years;
- helium has traditionally been traded on confidential long-term private contracts, keeping pricing opaque and reducing incentives for helium exploration; and
- due to its properties, helium cannot be stored/produced from shale. Helium therefore has to be sourced from conventional natural gas reservoirs, which currently hinder its economics. Helium associated with CO₂ will also suffer from currently low oil prices.

Five major fields/facilities (BLM storage, LaBarge, Hugoton, Algeria and Qatar) supply around 80% of global upstream helium. A similar number of large players control the distribution, which is often executed on privately negotiated contracts.

Data on current supply/demand/prices are therefore not widely disclosed and create uncertainty around exact estimates. However, our analysis of project developments suggests a lack of new supply to satisfy increasing (price-inelastic) demand.

Demand is steady, and prices are expected to be supported

In 2001, the United States accounted for about 60% of global helium consumption; countries in Europe and the Middle East, 22%; Japan 11%; other countries in Asia, 4%; and the rest of the world 2%. In 2010, the United States accounted for about 41% of global helium consumption; countries in Europe and the Middle East, 32%; Japan, 3%; other countries in Asia, 21%; and the rest of the world, 3%.

In 2015, estimated global helium consumption was about 6bcf. It remained at that level in 2016 and 2017, and was expected to stay at c 6bcf in 2018.

In 2017, helium consumption in Asian countries (including China, the Republic of South Korea and Taiwan) was expected to surpass US helium consumption for the first time, primarily due to the shift towards the electronics manufacturing sectors in those three countries. In 2017, the Asian countries were expected to consume about 1.94bcf of helium compared to about 1.9bcf in the United States.¹ IHS Market² expects that global helium consumption could increase at about 2% per year through 2020, but that consumption in these three countries could increase by about 4% per year during the same time period.

Based upon our research, we believe that the continued increase in demand will be backstopped by helium's lack of substitutes in its main markets of MRIs, high-end science engineering, pressure/purge applications and semiconductors. A well-documented shortage of helium in 2011–13 forced price spikes. New supply (based on LNG plant start-ups) then came online, resulting in prices returning to more normal levels.

We believe that supply constraints in the near to medium term will result in continued support for pricing and may support marked increases. Our analyses indicate an increasing shortage in the market in 2018²¹ and possibly beyond, especially if the mega projects at Qatar and particularly Russia (Amur) are delayed.

In our view, helium will likely be subject to steady, price inelastic demand growth. Hampered investment in supply led to a shortage of supply in 2011–13. In the resulting price rise, many industries sought to replace (or recycle) helium, where possible. However, its unique properties (low boiling point, small atomic size and weight, unreactive nature, and high thermal conductivity) mean that it is irreplaceable in many applications. The demand destruction seen in the industry in the spike of 2011–13 may have left the rump of demand more inelastic to price movements. Indeed, despite the current looser supply/demand dynamics, pricing has not retreated and BLM auction prices rose around 137% in August 2018 (vs previous year). Accordingly, helium prices may increase as a greater share of global production shifts to countries that may have greater political uncertainty than the United States.

¹ Garvey M.D, 2017 global helium markets – Supply chain challenges remain; Economics, Helium and the US Federal Helium Reserve: Summary and Outlook, Steven T Anderson 28 August 2017

² IHS Markit (2016a) *Global helium market swings to oversupply following supply constraints and demand destruction*; Economics, Helium and the US Federal Helium Reserve: Summary and Outlook, Steven T Anderson 28 August 2017

What is helium?

Helium is a unique industrial gas that exhibits characteristics both of a bulk, commodity gas and of a high-value "specialty" gas. Due to the high cost of extraction, helium use is restricted to relatively few, generally high-technology, applications.

Liquefied helium is distributed in bulk containers each carrying over 25,000 nm³ (cubic meter at normal temperature and pressure, defined as 20°C and 1 atmosphere). It is the only industrial gas distributed in such large quantities on a global basis. However, only a handful of sources in the world produce helium.

Why is helium important?

Helium is a vital element in the manufacture of MRIs, semiconductors as well as being critical for space exploration, rocketry and high-level science.

How is helium made/extracted?

Helium is made either by the nuclear fusion process of the sun, or by the slow and steady radioactive decay of terrestrial rock, which accounts for the Earth's entire store of the gas.

However, because the cost of removing helium from the air is significantly higher than that of procuring it from alternative sources, it is unlikely that air separation will be an economic source of helium in the foreseeable future. Instead, almost all commercially available helium is extracted from a small number of natural gas reservoirs with relatively high concentrations of helium. In the last several years, as natural gas liquefaction facilities have come on line, the amount of potentially recoverable helium has therefore increased.

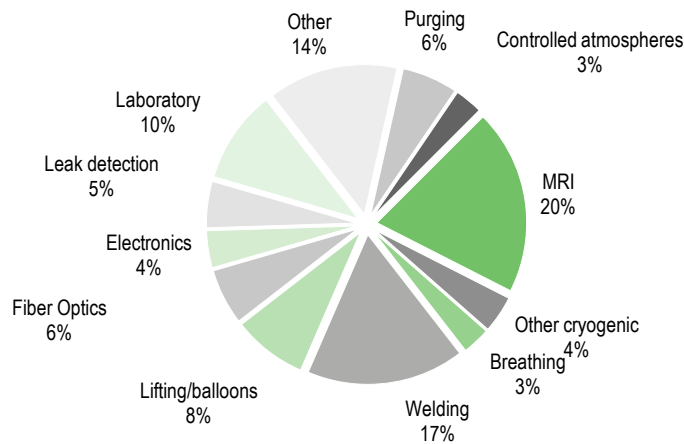
There is no way of manufacturing helium artificially, and practically all of the world's reserves have been derived as a by-product from the extraction of natural gas, mostly in the giant oil and gas fields of the American South-west, which historically have had the highest helium concentrations.

For large-scale use, helium is extracted by fractional distillation from natural gas, which has historically contained as much as 7% helium. Since helium has a lower boiling point than any other element, low temperature and high pressure are used to liquefy nearly all the other gases (mostly nitrogen and methane). The resulting crude helium gas is purified by successive exposures to lowering temperatures, in which almost all of the remaining nitrogen and other gases are precipitated out of the gaseous mixture. Activated charcoal is used as a final purification step, usually resulting in 99.995% pure Grade-A helium. The principal impurity in Grade-A helium is neon.

In a final production step, most of the helium that is produced is liquefied via a cryogenic process. This is necessary for applications requiring liquid helium and also allows helium suppliers to reduce the cost of long distance transportation, as the largest liquid helium containers have more than five times the capacity of the largest gaseous helium tube trailers.

Uses of helium

Key uses of helium include Magnetic Resonance Imaging (MRI), welding, lifting, purging and laboratory use. A recent breakdown of uses from Kornbluth Consulting is shown in Exhibit 1 below.

Exhibit 1: Demand constituents for helium


Source: Kornbluth consulting www.kornbluthheliumconsulting.com

For some applications, other gases can replace helium, but other applications rely critically on helium's unique properties, and there are no alternatives. Applications in the first category, where substitutes for helium might exist, include the following:³

- Lifting. For these uses, where low density is the only requirement, hydrogen is sometimes substituted if safety concerns can be met.
- Welding. Here, chemical inertness is the key property. For processes such as gas tungsten arc welding - a critical process applicable to reactive metals such as stainless steel, titanium, aluminium, and others in high-value, high-reliability applications -Europe mostly uses argon, while the United States uses helium.
- Semiconductor and fiber optics manufacturing. In these applications, high thermal conductivity is the important property. Often, hydrogen may be substituted.

In the above applications, economics, market conditions, availability, safety, and legislation can influence the choice among helium and other gases. In contrast, other applications require the unique properties of helium, typically relying on the extremely low boiling point of liquid helium to achieve a desired result. These applications include the following:

- Purging. Here, entities such as the National Aeronautics and Space Administration (NASA) and the US Department of Defense (DOD) must purge liquid hydrogen (LH2) and liquid oxygen (LOx) fuel tanks or systems that may be at liquid air temperatures or colder. Although gaseous hydrogen might have the right physical properties for use in LOx systems, its reactivity with oxygen precludes its use. Nitrogen is not desirable because nitrogen might contaminate the LOx. In LH2 environments, all gases other than helium and hydrogen would freeze, clogging fuel lines and systems and rendering the rocket engines non-functional.
- Superconductivity. One such use is in the superconducting magnets that all medical magnetic resonance imaging (MRI) machines employ. Current materials and technologies dictate that only helium can act as the crucial refrigerant.
- Basic research. Here, no other substance can be used as a refrigerant to achieve temperatures from 4.2 K above absolute zero down to millikelvins (thousands of a kelvin) above absolute zero.

³ Demand for Helium, Selling the Nation's Helium Reserve, 2010 (nap.edu)

Exhibit 2: Summary of the properties and applications of helium

Property	Application
Lowest boiling point; does not solidify at atmospheric pressure	Liquid cooling of low temperature superconductors Purging liquid hydrogen systems
Second lightest element (after hydrogen)	Lifting medium for balloons, airships
Smallest molecular size	Leak detection
Chemically inert	Carrier gas – analytical, semi conductor
Very high specific heat and thermal conductivities	Gaseous cooling – fiber optics
Radiologically inert (no radioactive isotopes)	Heat transfer medium in fusion reactors
Highest ionisation potential	Metal arc welding – aluminium Plasma arc welding – titanium
Extremely low solubility	Deep sea diving gases
Very high sonic velocity	Metal coating
Superfluid below 2.2k	Cooling of low temperature superconductors

Source: Air Products and Chemicals Inc, Paper on “Challenges to the Worldwide Supply of helium in the next decade

Specific applications

Magnetic resonance imaging

Magnetic resonance imaging (MRI) is a widely used non-x-ray-based technique that provides extremely detailed internal in vivo images of body structure. An MRI apparatus uses a strong magnetic field to align the nuclear magnetic spins of hydrogen atoms in a body, then drives the aligned hydrogen atoms at radio frequencies, and after detecting the properties of the aligned, driven atoms, uses tomography to process the density- and environment-dependent response, producing a non-invasive three-dimensional image. The only commercially viable source of the large (0.5–3.0 tesla) magnetic fields required for this process is a superconducting magnet contained in a cryostat—a container designed to thermally insulate the liquid-helium-cooled superconducting magnet and the liquid helium source.

MRI relies on helium to regulate the powerful magnets needed to create MRI scans, which are cooled to minus 452 degrees Fahrenheit (minus 269 degrees Celsius). Indeed, the fact that helium has the lowest boiling and melting points of all the chemical elements — liquid helium is the only liquid that cannot be solidified by lowering its temperature — is what makes it so irreplaceable in so many industries.

The availability of helium at low prices and the stability of the market over the years has contributed to the rapid growth of MRI as a diagnostic tool.

At the present time there is no substitute for helium in this application⁴, notwithstanding that manufacturers of MRI systems have adapted or developed technologies that significantly decrease the consumption of liquid helium to operate these devices.

⁴ Demand for Helium, Selling the Nation's Helium Reserve, 2010 (nap.edu)

Fundamental research⁵

Large-scale facilities are characterised by signature research tools used by many, often hundreds of, research groups. All such facilities located, for example, in the United States are supported with substantial US government funding and typically are located in national laboratories. The principal use of helium in these laboratories is to cool superconducting equipment for accelerators, particle detectors, and research magnets.

These accelerator facilities rely on superconducting magnets, cavities, and other superconducting components to produce and maintain high-energy particle beams. The superconducting components used in these facilities must be kept at very low temperatures, which in practice can be achieved only with liquid helium because of its low boiling point and high thermal conductivity. Large amounts of helium are often required at start-up in particle accelerators because liquid helium must be distributed along the entire length of the machine, which can be many kilometres.

Helium is also used in large-scale research laboratories because it exhibits unique superfluid properties below 2.17 K (achieved by pumping to low pressure), including extremely high thermal conductivity. This makes it useful for cooling superconducting radio frequency (SRF) cavities. A significant supply of helium is required for the development of such cavities for current and future accelerator projects because the complexity of the systems and the present cost of helium make it most practical to vent used helium gas to the atmosphere.

Small laboratories rely on liquid helium to operate diagnostic and measurement tools. Among the more important of those helium-cooled tools are superconducting quantum interference devices (SQUIDs). SQUIDs measure extremely small magnetic fields and are used in a wide range of studies, from biological research on brain activity to the assessment of materials characteristics. Devices used in astronomy and astrophysics studies also depend critically on liquid helium.

Industrial cryogenics

Liquid helium is used in the manufacture of semiconductor single-crystal boules, where helium-cooled superconducting magnets mechanically stabilize the melt during the pulling process. Helium is critical to this process and, by extension, to the semiconductor industry. In addition, some fabrication facilities require processing in ultraclean environments or under ultrahigh vacuum. Cryopumps (being vacuum pumps that trap gases and vapours by condensing them on a cold surface) cooled to liquid helium temperatures are one of the more widely used means of reaching those high vacuum conditions.

Optical fibre manufacturing

Helium is a critical element in the production of optical fibers, an important component of the telecommunications industry. Helium accounts for a small percentage of the total cost of fiber production.

Semiconductor processing

The high thermal conductivity of helium gas has been incorporated into the manufacturing process for plasma screens.

Chromatography

Helium is used for chromatographic separation, predominantly as a carrier gas. Helium is ideal for gas, gas-liquid, and gas-solid chromatography because it is chemically inert and diffuses rapidly. Chromatographic and gas-chromatographic systems are used in the pharmaceutical industry for drug analysis and purification, derivatization, and separation; in the food and beverage industries

⁵ Demand for Helium, Selling the Nation's Helium Reserve, 2010 (nap.edu)

for separation and analysis; in environmental assessments for air, water, and soil toxin analysis; in medical diagnostics for analysing the presence of gases in the bloodstream, as an example; and in explosives forensics and petroleum testing. There are no obvious substitutes, given the current state of technology.

Weather, defence and other lighter-than-air applications

As helium is lighter than air, it can be used to inflate airships, blimps and balloons, providing lift.

Although hydrogen is lighter than helium, helium's chemical inertness makes it safer to use as it is non-flammable, and so it has replaced hydrogen in most lifting applications. The party-balloon industry uses significant amounts of helium, as do weather balloons.

Lighter-than-air vehicles are also used for advertising and transportation purposes, an example of which is the Goodyear blimp.

Divers and others working under pressure use mixtures of helium, oxygen and nitrogen to breathe underwater, avoiding the problems caused by breathing ordinary air under high pressure, which include disorientation.

As well as being used to clean out rocket engines, helium is used to pressurise the interior of liquid fuel rockets, condense hydrogen and oxygen to make rocket fuel, and force fuel into the engines during rocket launches.

Because of its low viscosity and large diffusion coefficient, helium is an excellent leak detector gas and is widely used as such in science and technology. By way of example, helium is used in solar telescopes to prevent the heating of the air, which reduces the distorting effects of temperature variations in the space between lenses.

Global reserves

There is no clear picture of global helium reserves/resources and relatively little written publicly. Many papers and books reference papers that are decades old and there are no global authorities that publicly release data on helium in the same vein as seen in other industries.

In 2013, this uncertainty led US congress to request the USGS to perform a national and global helium gas assessment. Given the scarcity and niche nature of helium, the USGS expects this to take many years. However, the BLM expects to update its view on helium resources in the US by end 2018, according to the January 2018 USGS Mineral Commodity report.

Intermediate results (from January 2016) are shown in Exhibit 4. Assuming 7.0bcf/year demand (foreseen in 2019), this would translate to 23 years of proven reserves for the US, moving out to over 200 years including probable reserves in the US and the rest of the world. While this may superficially seem generous, these resources have to be developed, and this is not a given.

Development of the helium is hugely dependent on the development of the gases that it exists alongside.

Transparent reporting of reserves and resources is not helped by the tiny concentrations found in many natural gas fields. It exists in such small quantities in many natural gas reservoirs that it is often overlooked given the small volumes/revenues it may represent vs natural gas. Helium has largely been a profitable by-product but not valuable enough to justify standalone developments (nor in the US of a statute to allow federal land lease).

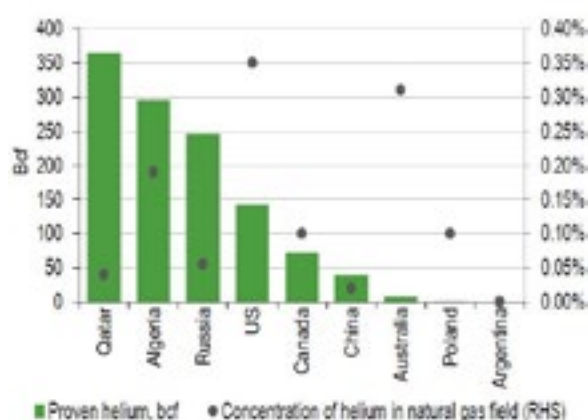
In most fields, large quantities of natural gas (or CO₂) have to be extracted for commercial volumes of helium to be separated, and as a result, the commerciality of a helium project largely rests

entirely away from the helium itself. As natural gas prices have declined in recent years (particularly in the US), projects have become less attractive and fewer projects have been sanctioned:

- the current surfeit of LNG supplies (and low prices) has led to postponement of large LNG projects (such as Browse) from which other helium could have been recovered;
- the recent low oil prices also mean that CO₂ flooding (from which helium can be extracted) has become less economic, reducing the demand for CO₂. A number of projects have been put on hold; and
- shales cannot trap helium, which means that supplies have not benefited from the massive shale boom in the US, and the economics of shale gas production have the potential to price out conventional natural gas development (which may contain helium) in the US in the medium term.

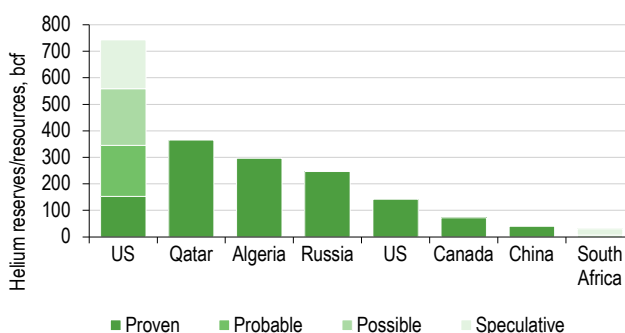
In the US therefore, helium development may have to be driven by helium economics, necessitating higher helium prices to incentivise investment.

Exhibit 3: Reserves of helium globally, including from natural gas fields



Source: BLM "BLM – Determination of fair market value pricing of crude Helium." Note: Proven helium reserves are given in bcf. Estimates made in 2013.

Exhibit 4: Summary of global helium resources (intermediate findings)



Source: USGS Mineral Commodity Summaries, January 2016. Note: Converted using a 36cf/m ratio. Renergen, South Africa, 6.2bcf 3P and speculative 24.3bcf.

In 2018, the BLM continued implementation of the Helium Stewardship Act of 2013 by conducting its fifth auction of helium from federal helium storage at the Cliffside Field near Amarillo. BLM prices are increasingly less informative given that the auctions will end shortly as the reserve is depleted. However, for reference, prices for BLM crude helium have risen substantially over the last three years. Cargoes are usually sold at a 99.999% purity or Grade 5, for which we have little pricing information. The lower Grade-A (or 99.99% purity) helium was priced at US\$280/mcf in the BLM's August 2018 auction. This was a significant increase over 2017, up 135% or US\$160/mcf from a 2017 price of US\$119.3/mcf. The auction allowed helium refiners and marketers to accumulate inventory for future years and to increase their crude helium allocation for FY19. Due to the price attached to allocation rights, the auction price was materially higher than BLM's posted price for FY19 at US\$175/mcf.

According to the USGS, by the end of the decade, international helium extraction facilities are likely to become the main source of supply for world helium users. Seven international helium plants are in operation and more are planned during the next 3 to 5 years, and expansions to facilities have been completed in Algeria and Qatar.

As of December 31, 2006, the total helium reserves and resources of the United States were estimated by USGS to be 20.6 billion cubic meters (744 billion cubic feet). Helium resources of the world, exclusive of the United States, were estimated by USGS to be about 31.3 billion cubic meters (1.13 trillion cubic feet), so helium resources in the United States accounted for about 40%

of the world total. The locations and estimated volumes of the major deposits, in billion cubic meters, are Qatar (10.1 or about 19% of the world total); Algeria, 8.2 (or about 16%); Russia, 6.8 (13%); Canada, 2.0 (3.8%); and China, 1.1 (2.1%). As of 31 December 2017, the BLM had analysed about 22,100 gas samples from 26 countries and the United States, in a program to identify world helium resources.

Reserve replacement of helium has been very poor and hampered by a number of factors:

- helium is scarce and generally found within conventional natural gas reservoirs in small concentrations (<0.5%), making helium a valuable by-product as long as the gas is profitable to extract. In the past, this has meant that upstream companies had no strong incentive to negotiate high prices for helium, while in recent years depressed gas prices (particularly in the US) have discouraged development of conventional natural gas fields;
- prices of helium have arguably been kept artificially low by the large-scale, well-publicised sell-off of the US strategic reserve to a limited number of buyers that gave mid / downstream companies a reliable supply over the last 10 years;
- helium has traditionally been traded on confidential long-term private contracts, keeping pricing opaque and reducing initiatives for helium exploration; and
- due to its properties, helium cannot be stored / produced from shale. Helium therefore has to be sourced from conventional natural gas reservoirs, which currently hinder its economics. Helium associated with CO₂, will also suffer from currently low oil prices.

Global supply

The entire global helium supply depends on roughly 20 liquefaction plants, located in the United States, Poland, Russia, Algeria, Qatar, China, and Australia. The United States is still the major producer, but most new sources are developing elsewhere. The bulk of US production is related to the BLM, which manages the world's largest helium reserve. In recent years, BLM-related production has diminished considerably. Helium is a global product in tight supply and any disruptions create shortages and dislocation.⁶

Global supply of helium is difficult to estimate. The US remains the largest helium supplier, but the BLM, which represents approximately 20% of the world-wide supply, will disappear from the market by 2021 due to natural depletion and depletion of the strategic reserve as mandated by the US Helium Stewardship Act of 2013⁷ whereby helium reserves previously stored in the US Federal Helium Reserve (FHR) are being extracted and sold without replacement. August 2018's BLM helium auction is to be the last, as reserves are anticipated to reach the federally mandated 3bcf limit of strategic reserves.

In the US, Congress in the past mandated that the federal government keep a reserve of helium. In 1996, US Congress moved to privatise the federal helium program by passing the Helium Privatization Act, requiring government to sell off its helium reserves using a rigid price formula in order to repay the debt accrued from a large helium buy-up in the 1960s, by 2015.

Qatar is a significant supplier of helium globally, providing over 28% of the world's supply. Qatar has been producing LNG since 1996, and has been extracting helium as a by-product of LNG production since at least 2005. During 2017, multiple Arab states cut diplomatic ties with and closed their borders to Qatar, disrupting helium production and transportation for several weeks.⁸

⁶ IHS Markit, Helium, April 2016

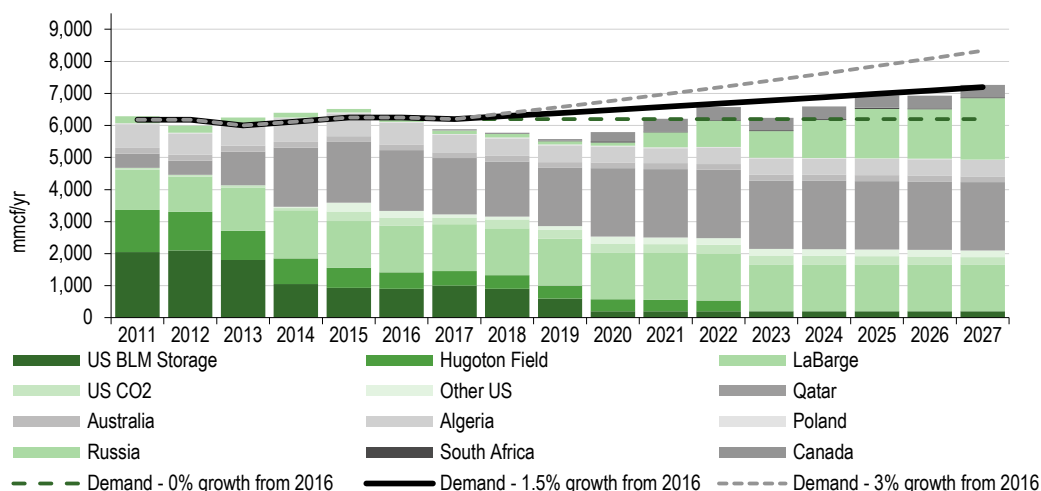
⁷ thorres.com/helium-business-2

⁸ Air Products & Chemicals 10K – 30 September 2017

New sources of supply are limited and will not offset these falls, meaning near-term supply will certainly decrease, and the only projects that could reverse this picture are mega such as Helium II (Qatar, 2020) and Amur (Russia, 2021). These will create material new helium sources, but may be subject to potential delays. Overall, the next few years are likely to bring little new incremental supply to cover reducing supply from existing sources and any demand increases. There is, therefore, potential for a deficit before then, which would be exacerbated by any downtime (such as further issues with Qatar or unexpected downtime in other major producers).

The following chart depicts the estimate of global supply and demand for helium:

Exhibit 5: Estimated global supply/demand forecast, mmcf/year



Source: JR Campbell & Associates report for BLM Office of Minerals Evaluation, public and private company data, Edison Investment Research, various. Note: Data compiled November 2017.

This estimate assumes that production from Qatar's Helium III will occur in 2020 and that the Amur Gas development will come on line in 2021/2022. Any delay in production from these two sources will materially adversely impact on global supply of helium.

Key supply sources/projects

Our research of major production facilities globally indicates little new (guaranteed) supply will come online in coming years (DBK, Tenawa), with incremental supply primarily going towards offsetting declines elsewhere (BLM, Hugoton). We review the major sources below:

United States

The US has been the key source for helium for decades. However, the depletion of the strategic reserve (and other major fields), together with the new supply from Qatar has lessened its role.

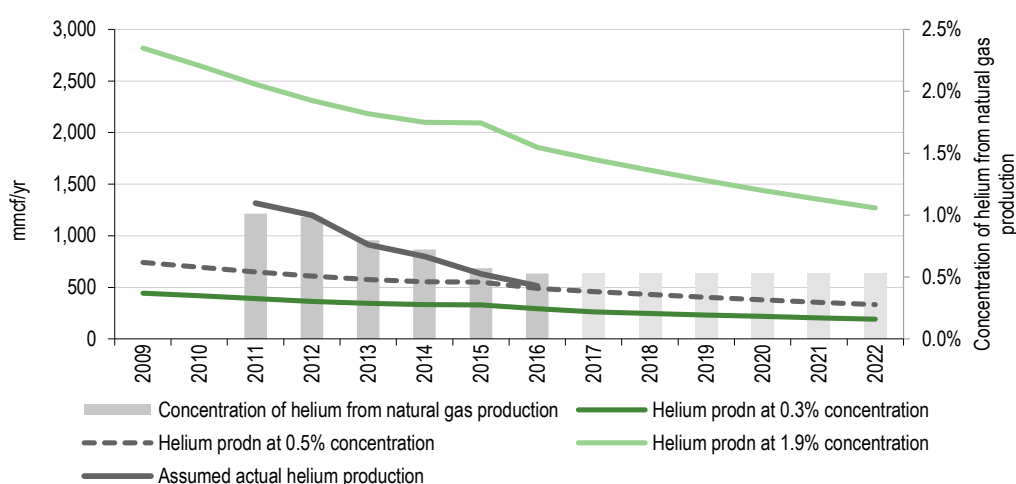
BLM – the strategic reserve will be fully depleted by 2021 (except for 3bcf of strategic reserve, which is to be used only when critical, and some privately held reserves). August 2018's BLM auction is to be the last, as reserves are anticipated to reach the federally mandated 3bcf limit of strategic reserves. As of October 2017, reserves of helium in the system were 3.475bcf (government) and 3.642bcf (private). After this limit is reached, only the private storage will be released.

Hugoton field – the Hugoton field is one of the largest gas fields in the US. It has produced nearly 27tcf of natural gas to date and has a high helium concentration (0.3–1.9%). As such, it has been a substantial contributor of helium supply in the US for many years. We estimate c 3–4tcf of natural gas left to be produced.

Hugoton produced 88bcf of natural gas in 2017 and has declined at a five- to 10-year CAGR of around 6–7% (production through to end July 2018 of 42bcf implies a decline consistent with this). Using the field production data (from Kansas) and applying the ranges of helium content suggests helium production consistent with concentrations of around 0.5%. The data certainly suggest that the 1.9% upper end of the range is not a relevant figure to use (although it may have been in parts of the field some time ago).

Actual helium output from Hugoton is not available, but we have used the estimates of historical data from JR Campbell and Associates from 2011–15, which imply helium concentrations of production fell from 1% in 2011 to around 0.5% in 2015. If true, this is a concern and suggests that our base assumption of a 6.1% decline in helium production (in line with field declines) will be too optimistic. If the trend of falling helium concentration continues, it may be uneconomic to continue to produce helium at Hugoton in the medium term.

Exhibit 6: Possible Hugoton helium production, mmcf/yr



Source: Kansas Geological Survey, Edison Investment Research. Note: We use the 0.5% helium concentration as a forecast guide for 2017 onwards.

LaBarge field – LaBarge is a large natural gas field in Wyoming with high concentrations of CO₂ and a relatively high concentration of helium (0.6%). The field economics rely on the efficacy of the CO₂ in enhancing oil production in surrounding oil fields as LaBarge is only 21% methane (the lowest methane content of any gas field globally)⁹ and is 65% CO₂ (as well as 5% hydrogen sulphide and 0.6–0.7% helium).

The Shute Creek facility separates out the gases, reinjecting the hydrogen sulphide (and some CO₂) into the reservoir, liquefying the helium and piping the rest of the CO₂ to surrounding fields in Wyoming and Colorado. The facility has a helium production capacity of 4mmcf/d, or 1.46bcf/yr, making it a substantial contributor to global demand (around 23%).

According to Exxon, all the gas was contracted for sale since the start of operations in 1986, but long-term sales averaged only half-capacity for much of this time, as the CO₂ enhanced recovery market did not develop as fast as anticipated, partially as a result of the distance to the fields.

Higher oil prices from the 2000s onwards made project economics more attractive. We have estimated that the facility continues to produce at its capacity over the forecast period (of 4mmcf/yr or 1.46bcf/yr).

⁹ CO₂ Management at ExxonMobil's LaBarge Field, Wyoming, USA. P E Michael E Parker et al, Energy Procedia 4 (2011)

Big Piney, US (Matheson & Air Products) – Big Piney was designed to extract helium from sour gas at rates of 200mmcf/yr, expanding to 400mmcf/yr. The helium-rich natural gas and CO₂ feed gas was due to come from the LaBarge field via Denbury's Riley Ridge processing plant, Wyoming.

Denbury's interest in gas was 1.2tcf of CO₂ with 0.6% helium. Indeed, Gage and Driskill (1998) estimated helium resources of 47bcf, and peak production from the LaBarge field as a whole was envisaged at 1.4bcf/yr. However, design issues meant there were delays to the start-up (in late 2013) and the plant was shut-in in 2014 after additional issues (caused by sulphur build-up in gas supply wells) hampered production. The plant remains shut in and was fully written off by Denbury in its 2016 annual report. We therefore do not expect any helium from this plant.

Doe Canyon, US (Air Products) – a helium separation plant from CO₂ feed was proposed to start in 2015 with a capacity of 400mmcf/yr, but we understand this was quickly reduced to 230mmcf/yr after start-up and that production has declined to 140mmcf/yr currently, due to lack of demand for the CO₂ feed gas. We have forecast that the plant will continue to produce at this rate during the forecast period, although sharp increases in oil prices could motivate greater CO₂ and therefore helium.

DBK expansion (IACX) – NASCO, a German-listed player, is planning to expand its DBK facility in Arizona. We model production increases from 70mmcf/yr in 2013 to around 140mmcf/yr in 2019. In August 2018, NASCO announced a farm-in agreement with Vision Energy Group (a subsidiary of Praxair) for the appraisal of the Hogback fields in New Mexico, US. Preliminary estimates based on historic drilling suggest probable reserves of 2.5bcf of Helium.

Other – Industry sources indicate that new supply from an existing cryogenic plant in the midcontinent US is possible over the next few years. Very little has been made public at this stage.

Miscellaneous – we do not have access to the production data of the other production facilities in the US.

Worldwide projects

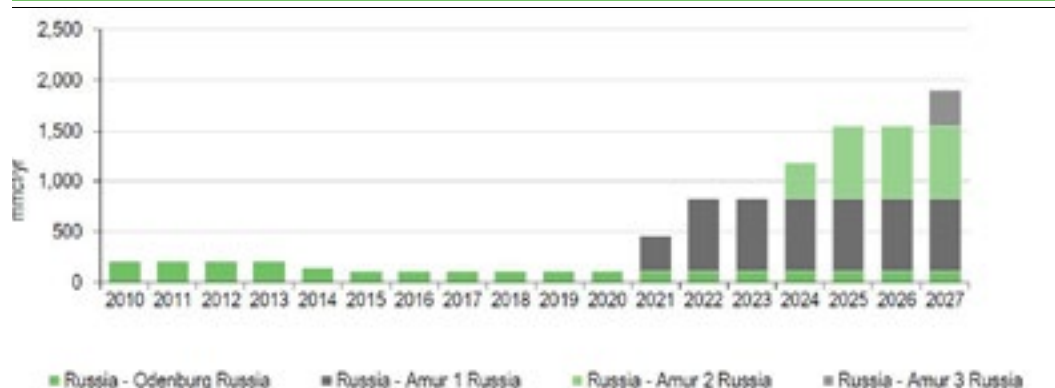
Qatar – the start of the Helium I and II projects had a major impact on helium supply and contributed to a surplus in 2014–16 after the shortage of 2012. The USGS estimates that Qatar produced 1.6bcf of helium in 2017 up from 468mmcf in 2012.

Despite the large volumes produced, estimates are difficult as no public information is available. In 2017 the USGS estimated 2016 production at 50m cubic metres falling to 45m cubic metres in 2017. The Helium III development, located in the Barzan facility, was planned to come online in 2018, adding a further 425mmcf/yr. However, issues with the pipeline that will transport feedgas to the processing facility mean this has been delayed. Such issues are often complex to fix and take some time (especially given the size of the development). We therefore assume that production will come online in October to December 2019.

Qatar supplies c 28% of global demand and helium was exported from the UAE (via Saudi Arabia), but this route was blocked in mid-2017. Helium production was suspended in June 2017 but restarted in July after a new route was organised.

Russia is currently a small contributor to helium production (the USGS estimates production of just under 110mmcf/yr in 2016) and has seen production decline steeply in recent years, as seen below.

With no further information, we have assumed that Odenburg will continue to produce at this rate, although this could be optimistic.

Exhibit 7: Russian helium production


Source: USGS, Edison Investment Research. Note: 2017 onwards are Edison estimates.

However, the massive Amur gas development has the potential to help Russia rival Qatar as the largest helium producer in the world by 2030. Planned to produce 42bcm of natural gas per year (contributing to a 30bcm pa export of gas to China over 30 years), the staged development could produce as much as 60m cubic metres of helium per year (2.2bcf/yr) – equating to 0.15% helium concentration.

Data on the development is not easily found, but we assume helium plants come online in the middle of 2021, 2024 and 2027, each of 720mcmf/yr. We would caution that as massive, complex projects, it is entirely possible that the developments see delays – albeit that intense pressure will be on managers to hit the targets given the strategic importance of the project to Russia and China of such massive volumes of natural gas. Operator reports as of October 2018 suggest that the project is currently running to schedule. The Amur complex will be one of the largest gas/chemicals plants in the world. We also do not know how the construction of the plant will be affected by western sanctions or exactly how it will be funded (we understand China has yet to provide some of the substantial loans required to build the complex). The gas plant alone is currently scheduled to cost €11.5bn.

Studies of projects by industry observers found that (i) 78% of upstream mega projects faced either cost overruns or delays;¹⁰ (ii) 73% of projects are delayed¹¹ – indeed of the 20 largest projects examined by an Ernst & Young study, only seven were on budget;¹² (iii) large oil and gas, mining and infrastructure projects run on average 20 months late and cost 80% more than budgeted; and (iv) the Oil and Gas Authority (in the UK) stated that fewer than 25% of new projects were delivered on time over the last five years.¹³

The impact of any delays would be very material for helium balance, as we described earlier in this report.

Algeria supplies helium when gas from its massive Hassi R'Mel field is exported via LNG. While the helium concentration is low (0.17%), the field accounts for c 60% of Algerian gas exports so economic extraction is possible (no other fields have commercial helium extraction). Historically, estimates have put helium production at around 900mcmf/yr, but we believe recently production has been lower.

¹⁰ Independent Project Analysis (IPA), 2011

¹¹ Spotlight on Oil and Gas Megaprojects, Ernst & Young

¹² HIS Global Insight

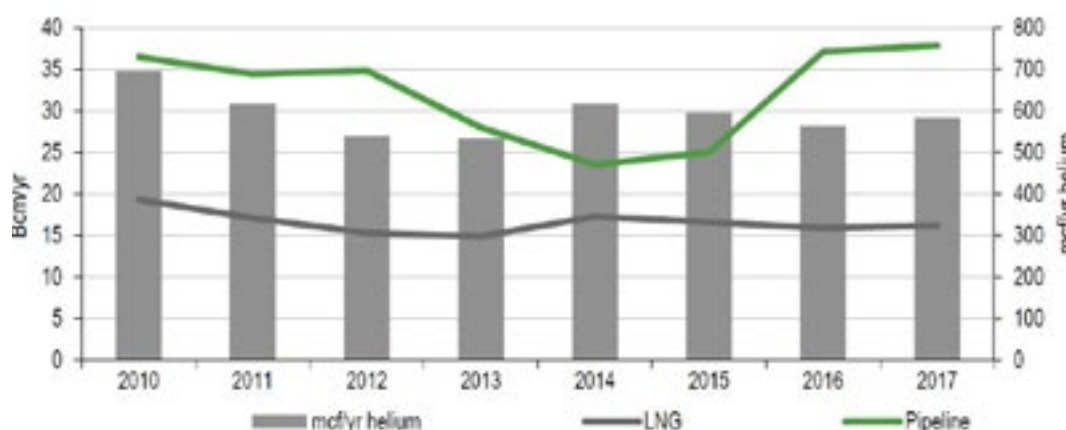
¹³ Lessons Learned from UKCS oil and gas projects 2011-2016, The Oil and Gas Authority

We believe Algeria prioritises its pipeline gas exports to Europe, with LNG a less critical component. LNG volumes can therefore suffer if demand in Europe increases or gas supply in the country is not as high as hoped.

As the crown jewel of the Algerian gas industry, the Hassi R'Mel field has taken the brunt of delays or under-production of other fields (In Amenas, Ohanet and Reganne to take just three examples) meaning that it has been used to fill-in these production gaps. The consequence is a reduction in the recycling of some gas (reinjecting dry gas and stripping the liquids for sale, keeping pressure up for longer-term reservoir management). This is bad for helium markets as it possibly reduces ultimate recoverable helium in the long term but also means that this in-filling of near-term gas production goes through the pipeline to Europe, bypassing the LNG system and helium extraction. This is a major source of uncertainty for our analysis. For modelling purposes, we assume a 5% decline pa in production of helium after USGS estimated 550mmcf/year in 2017.

As the source of so much revenue, Algeria has made strides to try to better conserve the field (and capture more gas elsewhere). It is possible that the decline in volumes in LNG may flatten out in the near term. More work is required to maintain long-term volumes.

Exhibit 8: Algeria gas volumes by export route

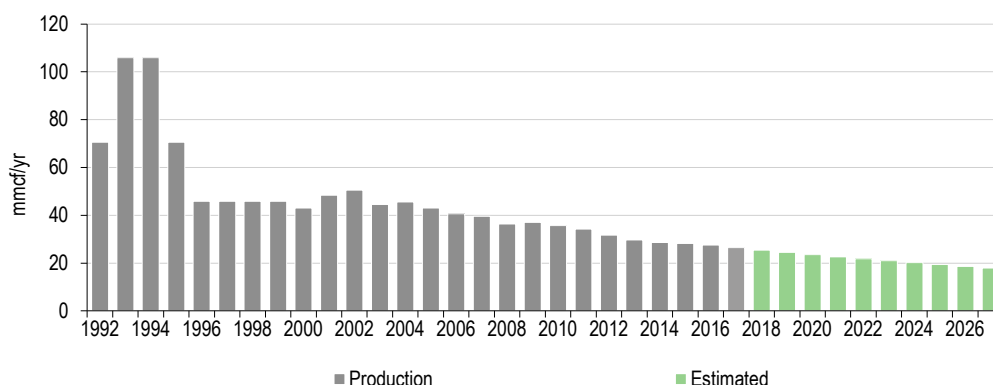


Source: BP, Edison Investment Research, various

Poland is one of the minor players in global helium, but the only European producer. According to the Polish Geological Institute, there are 16 helium fields in the country (situated in the Zielona Góra-Rawicz-Odolanów area) of which 14 are producing. Reserves and production are dominated by two fields that make up almost 60% of production. The reserve life of the complex is over 30 years. For 2017, the combined resources were estimated¹⁴ to be 24.37m cubic metres and production was 0.75m cubic metres.

This is notably different from the USGS estimate of 2m cubic metres. We take the Polish Geological Institute figures, which show an average (10-year) yearly decline of 3.8% and assume production continues to decline at this rate for the foreseeable future.

¹⁴ <http://geoportal.pgi.gov.pl/surowce/energetyczne/hel/2017>.

Exhibit 9: Polish helium production


Source: Polish Geological Institute and Edison Investment Research

South Africa - Renegen (via its 90% subsidiary, Tetra4 Pty Ltd) operates a natural gas field in the Virginia field in Free State in South Africa, which has high helium concentrations (of between 2–4%) and 9.2mkg of 2P reserves (corresponding to 1.96bcf). Details on the Tetra4 Project is set out in the Prospectus which includes this Independent Market Report.

As South Africa is extremely short of energy, there are strong incentives to develop any gas (and associated helium) over time.

Other new and possible sources

There are a number of projects in **Canada** of differing maturities. Exploration for helium in Canada could be very promising given proven deposits of helium in deeply buried traps, often with little associated CO₂ or other gases (other than nitrogen) making extraction and liquefaction cheaper.

Many of the other potential projects are yet to undertake exploration wells and hence we remain cautious about their prospects. These potential projects are discussed in more detail in our Helium Macro View report available at <http://www.edisoninvestmentresearch.com/research/sector>.

Global demand

In 2001, the United States accounted for about 60% of global helium consumption; countries in Europe and the Middle East, 22%; Japan 11%; other countries in Asia, 4%; and the rest of the world 2%. In 2010, the United States accounted for about 41% of global helium consumption; countries in Europe and the Middle East, 32%; Japan, 3%; other countries in Asia, 21%; and the rest of the world, 3%.

In 2015, estimated global helium consumption was about 6bcf, remained at that level in 2016, and was still expected to stay at about that level in 2017.

In 2017, helium consumption in Asian countries (including China, the Republic of South Korea and Taiwan) was expected to surpass US helium consumption for the first time. In 2017, the Asian countries were expected to consume about 1.94bcf of helium compared to about 1.9bcf in the United States.¹⁵ IHS Markit¹⁶ expected that global helium consumption could increase at about 2%

¹⁵ Garvey M.D, 2017 global helium markets – Supply chain challenges remain; Economics, Helium and the US Federal Helium Reserve: Summary and Outlook, Steven T Anderson 28 August 2017

¹⁶ IHS Markit (2016a) *Global helium market swings to oversupply following supply constraints and demand destruction*; Economics, Helium and the US Federal Helium Reserve: Summary and Outlook, Steven T Anderson 28 August 2017

per year through 2020, but that consumption in these three countries could increase by about 4% per year during the same time period.

Until recently, the world's seemingly abundant supply of helium was extracted solely as a by-product of natural-gas production in a limited number of helium-rich fields.

Continued demand for helium by a particular user or class of users will depend on a variety of factors, but for many users, helium is unique and must be used, regardless of price. Price does, however, play the key role in allocating its limited supply to those who place the highest value on its use. Further, for all helium users, technologies that conserve and/or recover helium can reduce the amount of helium consumed by as much as a factor of ten and it is expected that continued high prices will induce reduced usage, either through conservation or, where appropriate, through substitution of other materials.¹⁷

There are no independent authorities that accurately trace supply and demand as seen in other industries such as oil. The vast bulk of production is not disclosed publicly, either because the players are so big that helium production is not relevant to investors (ExxonMobil's LaBarge facility or Linde/Air Products businesses) or because entities are not listed (for example, the Qatari/Algerian LNG producer).

Growth in the global demand for helium is driven by rising demand for MRI, along with growth in the electronics, semiconductor, LCD, and fiber optic industries, which are centred in China, India, South Korea, Taiwan, and the Middle East.

In 2015, an estimated 25–30% of global helium was consumed in liquid form, with this share being higher in developed regions. In the major consuming regions – the United States, Western Europe, Japan, China, and Other Asia – MRI was the largest application for helium in 2015, accounting for almost 19% of total consumption, followed by semiconductors/electronics, welding cover gas, and fiber optics.

Demand for liquid helium grew particularly rapidly in the late 1980s and the 1990s, primarily as a result of demand for use in MRI and NMR machines. During operation, MRI scanners require liquid helium to cool their superconductive magnet coils to a temperature that can be reached only with helium. For current commercially available superconducting magnets, helium is the only material available to maintain the low temperature necessary for generating the superconducting effect.¹⁸

According to the USGS, US use declined by 30% in 2013–14 and had not rebounded back to 2013 levels in 2015, despite a greater supply. This suggests a level of permanent demand destruction as industries switched or became more efficient with supplies (many have built more effective helium recycling facilities for example). We would flag that MRI scanners, 20% of global demand, have seen some innovations that may reduce/negate the use of helium for super-cooling the magnets.

Pricing

The US government-mandated sell-off of the helium reserve was designed to recoup the investment (plus interest) on the helium reserve and get the government out of the helium market.

Initially the price set on the crude from the reserve was purely to cover the costs of the US\$1.33bn debt, and was well above the prevailing crude helium market price at the time, as can be seen in the years 2000–05 (Exhibit 10). Helium was a profitable by-product of natural gas production, and as such prices had little reference point, while its private nature meant price discovery was difficult.

With the advent of the BLM auction process, a partially market-driven price became public and a reference point for private contracts. It is clear that the private spigot prices are materially above the

¹⁷ Demand for Helium, Selling the Nation's Helium Reserve, 2010 (nap.edu)

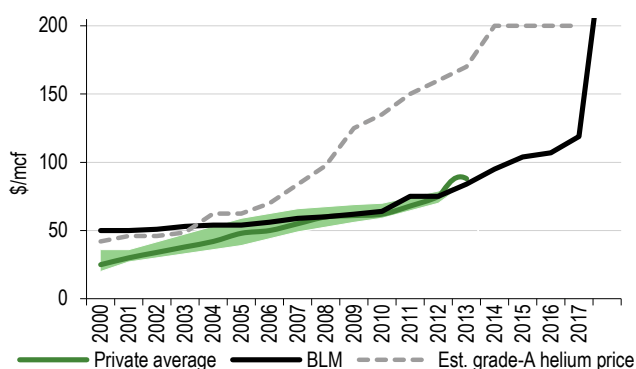
¹⁸ IHS Markit, Helium, April 2016

BLM crude pricing, with bulk liquid helium well above this level (not surprisingly given the refining that is required). Unsurprisingly, prices rise the closer you get to the consumer, with HP cylinder prices 2.5x the private spigot (wholesale) price.

Recent price history

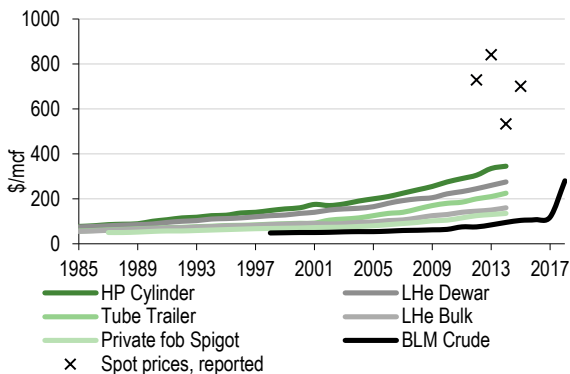
BLM prices are increasingly less informative given that the auctions will shortly end as the reserve is depleted. However, for reference, prices for BLM crude helium have risen substantially over the last three years. Cargoes are usually sold at a 99.999% purity or Grade 5, for which we have little pricing information. The lower Grade-A (or 99.99% purity) helium was priced at US\$280/mcf in the BLM auction in August 2018. This was a significant increase over 2017; up 135% or US\$160/mcf from a 2017 price of US\$119.3/mcf. The auction provided helium refiners and marketers to accumulate inventory for future years and to increase their crude helium allocation for 2019. Due to the price attached to allocation rights, the auction price was materially higher than BLM's posted price for 2019 at US\$175/mcf.

Exhibit 10: Wholesale prices of private crude helium converged towards rising BLM pricing



Source: USGS. Note: All prices are for crude helium. The green range is the low to high estimates of private crude helium, and estimates past 2012 are not available. Data compiled Nov 2017.

Exhibit 11: Prices for different customers, from wholesale (BLM and private spigot at the bottom) to retail



Source: USGS, "Determination of fair market pricing of crude helium", assorted sources for spot prices

Praxair Linde merger

Industrial gas giants Linde and Praxair agreed an all-share merger in principle in December 2016 and have since been divesting assets in order to satisfy the requirements of the US Federal Trade Commission (FTC). An agreement to dispose of businesses with a combined US\$4.3bn in sales, or €1.1bn in EBITDA, was struck with anti-trust regulators and the merger received a final green light from regulators in October 2018.

The merger is expected to complete by 31 March 2019 with 92% of shares tendered to date. The combined group (named Linde plc) is expected to be larger than rival Air Liquide (which recently combined with Airgas) at combined revenues of US\$29bn and a market value of US\$90bn and will be a dominant force in the global supply of helium.

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Name **Ian McLelland**

Title **Global Head, Natural Resources, Edison Investment Research**

APPENDICES

US Helium Extraction Act 2017

The Helium Stewardship Act (2013) set a timetable for the release of the US national helium reserves to be steadily sold off, but did little to incentivise longer-term helium exploration. It arguably had the opposite effect; by selling a large percentage of global demand per year to a small number of players, it may have reduced prices below the market equilibrium. With only a few years to go before the reserve is exhausted, steps are now being taken to motivate helium exploration again (on federal lands).

Currently, the Mineral Leasing Act (1920) only allows companies to retain acreage if they are extracting oil or natural gas. The Helium Extraction Act of 2017 is intended to extend these rights to companies looking to extract helium, thereby taking a further step towards allowing focused helium exploration. As the sponsor of the bill (Paul Cook: R-CA) stated in the House on 1 November 2017, “[u]nder existing law, the Mineral Leasing Act only permits helium extraction as a by-product of an existing oil or natural gas lease. As a result, if oil and gas production on a Federal site is not economically viable, the lease will expire, regardless of the revenue brought in by helium sales. The Helium Extraction Act of 2017 would correct this error and authorize helium production activities where economically viable.”

The act was passed by the house (committee) without amendment in January 2017 and subsequently referred to the Senate energy and natural resources subcommittee on public lands, forests and mining in August 2018. We do not expect this to have a material effect on helium for a number of years, but it is nevertheless a positive step.

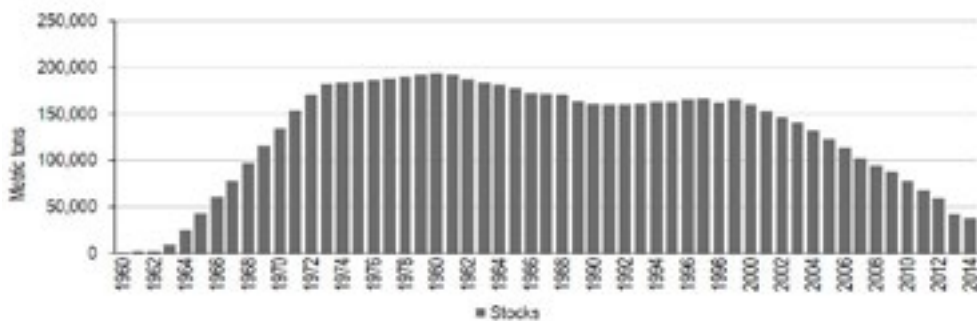
History of the BLM and the Federal Helium Reserve

In 1925, the US government started to store helium in the Bush Dome Reservoir in Texas (also known as the Cliffside field), in order to retain reserve and flexibility on the scarce resource. Initially set up as a strategic supply for airships, the focus moved to space exploration. As more gas was required for the reserve, the 1960 Helium Conservation Act allowed for a 425 mile pipeline to be built connecting a number of natural gas fields in Texas, Kansas and Oklahoma with high helium content to the Cliffside field, where it was injected for storage. The act also funded construction of five large natural gas processing facilities that produced crude helium as a by-product for sale to the US Bureau of Land Management (BLM). Later, the government looked to increase the stockpile further, and this resulted in the huge growth of reserves over the next decade, as seen in Exhibit 12. During this period, the government was the major buyer of helium.

This growth was funded by a debt to the US government, which had grown (with help from high interest rates and inflation) to US\$1.33bn by 1996. With the 1996 Helium Privatization Act, Congress sought to recoup this amount through a controlled sale of the resource to the market, starting a gradual depletion of the resource since then. As can be seen in the supply/demand charts, this is a significant percentage of global supply.

It is clear that this supply will be exhausted soon. In October 2013, Public Law 113–40 (Helium Stewardship Act) was passed, requiring the BLM to auction volumes off (to any qualified bidder), a revision to the previous set sales price approach. In 2019, or once the resources gets to 3bcf, this process will stop (the 3bcf will be reserved for government use). Once privately owned crude helium has been delivered, the world helium market will no longer have the flexibility that was historically provide by the BLM reserve.

Exhibit 12: Stocks of helium in US strategic reserve



Source: USGS

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The Natural Gas Market in South Africa



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28 February 2019

The Directors
Renergen Limited
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Dear Directors,

This Independent Market Report on the Natural Gas Sector in South Africa has been prepared by Lungiswa Energy Pty Ltd (Lungiswa Energy) at the request of the Directors of Renergen Limited (Renergen) for inclusion in a prospectus to be lodged with the Australian Securities and Investments Commission in connection with Renergen's Initial Public Offering (IPO) and associated listing on the Australian Securities Exchange.

The Report identifies the potential user categories of Liquefied Natural Gas (LNG) and specifically addresses the supply and demand of LNG for heavy-duty vehicle usage and other South African markets into which Renergen could sell its natural gas.

Ethel Teljeur
Managing Director, Lungiswa Energy Pty Ltd



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About Lungiswa Energy

Lungiswa Energy Pty Ltd is a 100% woman-owned and majority black-owned South African professional services-company established in 2017. Our directors have over 25 years of combined energy sector experience and operate a network of experts that are sourced on a project-to-project basis so as to ensure an optimal fit for each client's needs.



The Managing Director is Ms Ethèl Teljeur, an energy sector expert with 18 years experience in competition and economic regulation of the various energy sub-sectors including piped gas; petroleum pipelines; petroleum products and electricity. Ms Teljeur was South Africa's first Gas Regulator and a member of the board of the National Energy Regulator of South Africa (NERSA) from its inception in 2005 until 2013.

Ms Teljeur became a partner in professional services firm Genesis Analytics in 2013 where she headed the economic regulation division of the Competition and Regulation Practice. Ms Teljeur has also held positions at the Competition Commission of South Africa; the Dutch Office for Energy Regulation; the Department of Trade and Industry and BHP Billiton.

Ms Teljeur was instrumental in the development of the licensing procedures and pricing methodologies of NERSA during her time as regulator member and has, in her current capacity, appeared as an expert witness before the National Energy Regulator of South Africa on behalf of clients in the LPG business. She has assisted various entrants in the gas industry with project viability assessments and/or licence applications for LNG facilities; gas to power projects; and Compressed Natural Gas facilities.

With Ms Sheik, Ms Teljeur has served as expert advisor to the Independent Power Producer Project Office with respect to the Gas Utilisation Master Plan and the Competition Commission of South Africa with respect to the liquid fuels industry.

Ms Fathima Sheik, Director of Lungiswa Energy and an economist with over 12 years experience as an economic consultant, has held various positions at professional consulting firm Genesis Analytics. She has managed a large number of policy and regulatory projects in sectors ranging from energy to transport and telecommunications. Her clients included those in the private sector, law firms, regulators, and regulated entities. She is a financial and tariff modelling expert and specialises in translating policy positions into functioning regulatory and tariff frameworks. Ms Sheik has also contributed to many competition cases, including merger analysis and abuse of dominance cases and is able to combine both competition and regulatory principles to complex assignments.



Competencies

Lungiswa Energy provides policy, regulation, competition, licensing, pricing and tariff and related advisory services to governments; statutory bodies; regulators and private sector participants in the energy sector. Our expertise in the gas, electricity and liquid fuels sectors includes knowledge of licensing procedures; pricing and tariff methodologies; project structuring; compliance requirements and review procedures.

Key Findings of the Report

South Africa's gas market has considerable potential for growth due to changing relative primary energy costs and Government policies aimed at diversifying the energy mix. However, until alternative gas supplies become available through imported LNG or indigenous or regional gas supplies, the South African gas market is unlikely to see any further expansion and development.

The market is dominated by vertically integrated gas company Sasol Ltd (Sasol), and most gas traders engage in on-selling of gas originating from Sasol. Government efforts to introduce new gas sources through the procurement of an LNG to power project have suffered considerable delays.

The future market for LNG in South Africa is predicated on three main application options:

1. Gas-to-power projects;
2. Industrial use of regasified LNG; and
3. LNG as a transport fuel, particularly in heavy-duty trucks.

Internationally, the use of LNG or compressed natural gas (CNG) as a vehicle fuel has been growing rapidly, with the global gas-fuelled vehicle population growing at 20% in 2016. However, CNG or LNG fueled trucks constituted approximately 1% of the total gas-powered vehicles worldwide. Despite favourable fuel economics of LNG and CNG vehicles, the conversion rate from diesel to CNG or LNG is highly sensitive to a country's fuel taxation regime, Government policies and the country's access to natural gas.

Whilst imported LNG requires an anchor Gas-to-Power (GTP) project, domestically produced LNG faces fewer barriers to entry. Renergen, via its



90% owned-subsiary Tetra4 Pty Ltd (Tetra4), is in the unique position of being the only producer of onshore natural gas to emerge since PetroSA commenced its production of gas in the 1970s.

The markets identified by Renergen in South Africa for Tetra4's natural gas, in LNG form, consists of vehicular fuel customers (which is Tetra4's primary target market for its LNG), industrial users, and potential power generation / combined heat and power (CHP) applications. Our Report does not address the domestic or global demand for Tetra4's helium supply.

This Report focuses on an assessment of the vehicular fuel market and, in particular, on the supply of LNG as a vehicle fuel in heavy-duty truck haulage. We estimate that this market opportunity is approximately 40,000 to 67,000 trucks that may convert from diesel to LNG in five of the nine provinces of South Africa alone.

The results must be used with caution as this estimate was arrived at using province-specific conversion rates for application to a total of five provinces that have different industrial, geographical and infrastructural characteristics.

Renergen's competitive advantage is derived from its access to independent proven natural gas and Helium reserves in the Free State of South Africa, setting it apart from all other licensed gas traders who depend on either Sasol or other traders on-selling gas they initially obtained from Sasol. Due to policy uncertainty with respect to onshore gas exploration in South Africa, Tetra4 has a considerable first-mover advantage with its onshore petroleum production rights that are valid for 30 years, until 2042. Tetra4 also boasts additional exploration rights in Evander, Mpumalanga, South Africa. The Virginia fields were prioritised for development and Renergen intends to commence exploration in Evander for the production of LNG once the Virginia field is operational.

Based upon our enquiries, Tetra4 expects to be able to supply up to 3,300 heavy-duty trucks when it is producing LNG at maximum capacity. This translates into between 4.9% and 8.2% of the estimated addressable market opportunity, or less than 1% of the total heavy haulage trucks registered on South African roads. In other words, Renergen need only convert a fraction of the addressable market opportunity to ensure full capacity demand levels.



An overview of the Natural Gas Market (for LNG) in South Africa

The South African natural gas industry remains constrained despite the implementation of policy, legislation and regulations aimed at stimulating the industry for over a decade. The primary reason for this is the limited natural gas supply available to the South African market. Natural gas only accounts for approximately 3% of total energy use in South Africa.¹ Sasol Ltd – the vertically integrated South African gas and chemicals company – is the primary source of gas supply to the South African market and supplied approximately 170 million GJ of natural and synthetic gas in 2014.²

This gas is currently supplied in two broad regions of South Africa.

- Customers in the Gauteng/ Mpumalanga/ Free State region represented by **area A** in the map below are supplied primarily by Sasol, with vehicular customers in particular supplied by NOVO Energy, and NGV/VGN.
- The KwaZulu-Natal area represented as **area B** in the map below is supplied with synthetic gas by both Sasol Gas and Spring Lights Gas.³ Tetra4 currently supplies a small volume of gas to a single customer close to its location in the Free State.

These are the only regions in the country where natural and synthetic gas is available to customers as gas produced by State Oil and Gas Company PetroSA is used exclusively in its Gas-to-Liquids (GTL) facility in Mossel Bay in the Eastern Cape.⁴

¹ Department of Energy, "*Integrated Energy Plan*", 2016, p.48.

² Independent Power Producers Procurement Office, Department of Energy, "*Information Memorandum for New Generation Capacity for the LNG-to-Power Independent Power Producer Procurement Programme*", October 2016, p.17.

³ Spring Lights Gas obtains all its supply of gas from Sasol. Teljeur, E., Sheik, F.B., Bowdery, R. & Kika, J. , 2015, "*An assessment of the adequacy of competition in the South African piped-gas industry for the National Energy Regulator of South Africa*," Genesis Analytics, 8 October 2015, p. 9.

⁴ Perpetuity Capital, "*Corporate Presentation - Investigation into dual listing on ASX*", December 2017, slide 13.



Figure 1. Map of South Africa indicating areas where natural gas is available



Source: *www.places.co.za*, accessed on the 15th February 2018

Recently, the South African Government has undertaken policy initiatives aimed at further developing the gas industry and more specifically, the supply of natural gas through imported LNG into the South African market. These initiatives include the development of a Gas Utilisation Master Plan which commenced in 2014 and the publication of a Preliminary Information Memorandum for LNG to power Independent Power Producer (IPP) projects in October 2016.⁵ These initiatives are yet to bear any fruit as the process stalled when the need for coordination with the country's Integrated Energy Plan and National Integrated Resource plan was identified, which were under review during 2016 and 2017. Despite the delays in this process, the initiatives themselves indicate a recognition of the value of natural gas in diversifying South Africa's energy mix and a desire by the Government to increase the role of the gas industry in meeting the country's energy needs.

⁵ Independent Power Producers Procurement Office, Department of Energy, 2016, *op cit*.



Market structure

The South African natural gas industry consists of three broad market segments:

1. upstream production and exploration;
2. midstream transmission and distribution; and
3. downstream trading and reticulation.

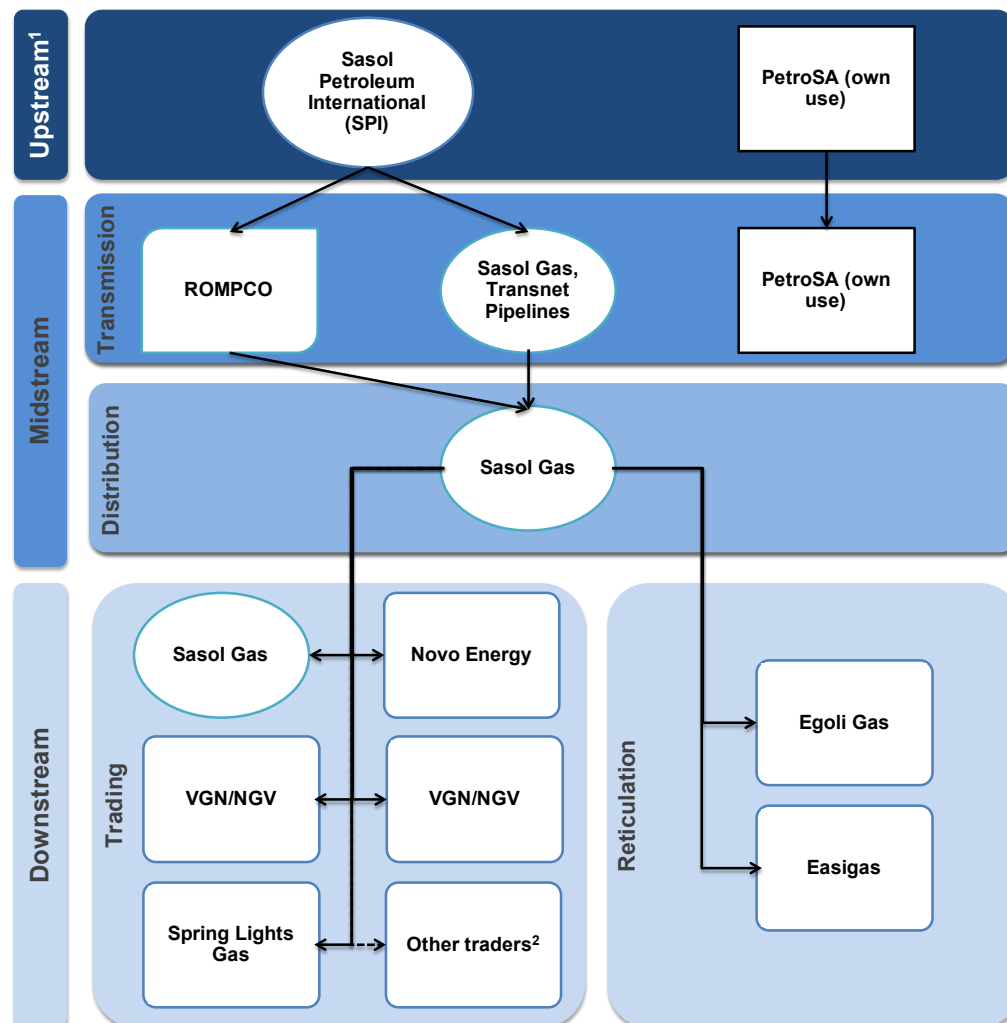
This nomenclature is a result of both the standard gas supply chain and the peculiarities of the South African licensing and regulatory framework.⁶

The Figure below illustrates the various market segments including the companies operating in each segment. The suppliers of gas in South Africa and the country's gas supply are discussed in more detail on page 13 of this Report.

⁶ Teljeur, E., Sheik, F.B., Bowdery, R. & Kika, J., 2015, *op cit*.



Figure 2. Natural gas market in South Africa



Source: Lungiswa Energy

Notes to Figure 2

1. Renergen's subsidiary, Tetra4, is currently producing CNG from its gas fields in the Free State province. As relatively small volumes are supplied to a single customer, Tetra4 is not included in the upstream supply section of Figure 2.
2. The term 'Other traders' refers to a number of licenced operators in the market that are supplying relatively small volumes of gas to only a few customers. Spring Lights Gas – CNG was granted a licence for construction and the operation of the storage facility in KwaZulu-Natal as well as a trading licence; and Columbus Stainless Steel was granted a licence for the operation of a pipeline and trading licences in Mpumalanga. Evraz Highveld Steel and Vanadium Limited was granted a gas trading licence to supply gas to customers in the Mpumalanga province. Tetra4 is the only trader (except for Sasol Gas) with access to its own gas supply, that supplies gas from its gas field in the Free State and is not supplied gas by Sasol Gas. Tetra4 has operation and trading licences in the Virginia area of the Matjhabeng Local Municipality of the Free State Province.



Upstream production and exploration encompasses the production and exploration activities for gas in South Africa. These activities are overseen and licensed by the Petroleum Agency South Africa (PASA). There are currently four sources of gas in South Africa. This includes natural gas which is imported by Sasol Gas (a subsidiary of Sasol Ltd) from Mozambique, synthetic gas (so-called 'methane-rich' gas) manufactured by Sasol at its Secunda plant and natural gas which is extracted by the Petroleum, Oil and Gas Corporation of South Africa SOC Ltd (PetroSA) from the Bredasdorp basin for its own use. The fourth and most recently introduced source of natural gas in South Africa, is Tetra4 which began production of relatively small volumes of compressed natural gas in May 2016 from its gas field in the Free State province.

The midstream transmission and distribution segment of the market comprises transmission⁷ and distribution⁸ pipelines for the supply of gas, and are located only in Mpumalanga, Free State, Gauteng and KwaZulu-Natal.

There are two transmission pipeline operators in South Africa:

1. Sasol Gas which owns and operates the gas transmission facilities in the Gauteng, Mpumalanga and Free State provinces and operates the cross-border ROMPCO transmission pipeline; and
2. Transnet Pipelines which owns and operates a gas transmission pipeline, known as the 'Lily' pipeline, from Secunda in Mpumalanga to Durban South in KwaZulu-Natal.⁹

Distributors are granted an exclusive geographic area for distribution operations, based on their ability to supply present and future potential consumers at competitive prices and conditions. The distribution operation

⁷ Transmission refers to transportation of natural gas by pipeline with an operating pressure above 15 bar gauge, and is defined in terms of the Gas Act as "*the bulk transportation of gas by pipeline supplied between a source of supply and a distributor, reticulator, storage company or eligible customer, or any other activity incidental thereto (...).*"

⁸ Distribution is defined as "*the distribution of bulk gas supplies and the transportation thereof by pipelines with a general operating pressure of more than 2 bar gauge and less than 15 bar gauge (...).*"

⁹ Nampak Glass Limited was granted a licence to construct a gas transmission pipeline in Ekurhuleni Municipality in Gauteng. This pipeline is for its own use to connect directly to Sasol Gas' transmission network in order to bypass Sasol's distribution network and hence lower its gas price through the removal of the gas distribution tariff. NERSA, "*Reason for Decision on application for the construction of a gas transmission facility*" Gala.d.F3/154/2016.



licence is limited to a particular gas specification, as included in the licence conditions. Sasol Gas (a division of Sasol) owns the distribution networks for natural gas in South Africa and has exclusivity over distribution in the specific areas covered by its distribution network in Gauteng, Mpumalanga, Free State and KwaZulu-Natal. Tetra4 does not use Sasol's distribution network and as its pipelines will be designed and operated at a lower pressure (below 2 bar gauge) is not affected by Sasol's exclusivity in distribution network operation in the areas mentioned.

The downstream trading¹⁰ and reticulation segments involve the selling of gas to end-customers and traders.

South Africa currently has 10 licensed gas traders, with varying geographic spread and sales volumes, including Sasol Gas, Spring Lights Gas, Virtual Gas Network (VGN), NGV Gas, Novo Energy; Reatile Gastrade; Tetra4 (Renergen); Columbus Stainless (Pty) Ltd; Spring Lights – CNG; and Evraz Highveld Steel and Vanadium Limited. Of these traders, only Sasol and Tetra4 have an ownership stake in their natural gas supplies. The other traders on-sell gas that is originally sourced from Sasol.

Gas reticulation refers to distribution of gas using pipelines with less than 2 bar gauge, and is regulated by local Government. The gas reticulators operating in South Africa are Egoli Gas (owned by Reatile Holdings), with a network of approximately 1,200 kilometers of pipelines, and Easigas which operates a small gas reticulation network in Port Elizabeth. Tetra4 will use its own reticulation pipeline(s) for supply to its operations.

The figure below illustrates the location of key gas sources, infrastructure and supply areas across South Africa.

¹⁰ Trading is defined in terms of the Gas Act as “*the purchase and sale of gas as a commodity by any person and any services associated therewith, excluding the construction and operation of transmission, storage and distribution systems, (...).*”



Figure 3. The location of gas sources, infrastructure and supply across South Africa



Sources: Google maps, Lungiswa Energy research and Teljeur, E., Sheik, F.B., et al, 2015, p 2-11 and 35 op cit.

Notes to Figure 3

- (i) Area A consists of customers in the Gauteng/ Mpumalanga/ Free State region, that are supplied by Sasol Gas, NOVO Energy and Natual Gas Vehicle (NGV)/ Virtual Gas Network (VGN). The gas users in this area are served primarily by Sasol Gas in terms of volume, but includes an area that is also served by NOVO Energy (Johannesburg east and beyond) and an area that is supplied by NGV/VGN (Johannesburg and surrounding area). Given the reach of compressed natural gas supplied via (storage) modules, there may be areas where NOVO Energy, VGN/NGV and Sasol Gas can all supply.
- (ii) Area B represents the KwaZulu-Natal area, which is supplied by both Sasol Gas and Spring Lights Gas.
- (iii) The size of the map icons does not reflect the actual size of the gas reserves or supply available. It is merely a representation of the location of the gas fields or supply areas.
- (iv) The lines representing the pipelines do not reflect the actual physical path followed by the pipeline.

Market Drivers

The critical issue inhibiting the current stagnate state of the South African natural gas market is the limited domestic availability of gas supply. In addition to relative newcomer Renergen, there are currently only two sources of gas available for supply to the South African market - both of which are



supplied by Sasol.¹¹ The synthetic gas produced by Sasol is effectively a by-product of its Coal-to-Liquids manufacturing process and cannot easily be ramped up whilst the imported natural gas supply from Mozambique is constrained by the capacity of the cross-border pipelines and other factors. Sasol is obliged in terms of an Agreement with the Government of South Africa, dated 2001, to supply a minimum volume of gas per annum into the South African market for the next 10-11 years.¹² As a result, Sasol must ensure that sufficient gas supplies remain in the Pande and Temane gas fields in Mozambique for this period, thereby placing an effective limit on the volume of additional gas that Sasol can import into South Africa in the short to medium term. Further, as Sasol is vertically integrated and competes with other gas companies in the downstream markets, it does not have an incentive to increase supply to supply its competitors.¹³

Another key factor in the low penetration of natural gas in the South African market has been the historically low electricity prices due to inexpensive and abundant coal leading to a preponderance of coal-fired electricity generation. This has meant that natural gas was not a cost-effective alternative for customers and was at a competitive disadvantage compared to electricity. However, this has recently changed as electricity prices have risen significantly in the last few years and it is expected that electricity prices will

¹¹ PetroSA does produce indigenous gas however this is for its exclusive use in its Gas to Liquids plant.

¹² This refers to a number of Agreements that preceded the promulgation of the Gas Act, namely: 1. The *Agreement Concerning the Mozambican Gas Pipeline between the Government of South Africa and Sasol Ltd* of 2001. 2. *Schedule One to this Agreement*, known as the *Regulatory Agreement between Sasol Ltd and the Ministers of Trade and Industry and Minerals and Energy*, 3. The *Pipeline Agreement* confirms the ownership and operation of the cross-border pipeline between Mozambique and South Africa. 4. An *Intergovernmental Memorandum of Understanding* between the Governments of Mozambique and South Africa provides the government-to-government cooperation requirements. The Agreements provide certain rights and benefits to Sasol Ltd, and place several requirements on it in terms of supply and pricing principles (particularly Schedule One, the Regulatory Agreement). The majority of the clauses of the Regulatory Agreement came to an end in 2014 (10 years after gas was first transported to South Africa using the cross-country pipeline). The obligation to supply at least 120 million GJ per annum to South Africa for 25 years after First Gas is the surviving clause of the Agreement that is referred to in the text. Depending on the total gas reserves in the fields in Mozambique, Sasol may import additional gas into South Africa, as long as sufficient gas is retained to comply with the minimum supply requirements for the remaining 10-11 years until 25 March 2029.

¹³ Teljeur, E., Sheik, F., Kagee, S., 2015, "*Third Party Access to Distribution: Lessons from South Africa*," World Gas Conference 2015.



continue increasing in future. South Africa's power utility Eskom's electricity prices have more than doubled since 2008. Eskom applied for a 19.9% price increase for the 2018/9 financial year, however in the Regulator's decision the increase was reduced to approximate the national CPI increase of 5.2%.¹⁴

The primary drivers behind these electricity price increases have been rising costs coupled with a lower demand for electricity. Eskom's costs have increased significantly over the last decade for many reasons. Firstly, increased capital investment in new coal fired power stations have been fraught with delays and cost over-runs. Secondly, the boom in coal prices significantly increased Eskom's primary energy costs which was exacerbated by procurement inefficiencies. Thirdly, the Government's decision to promote renewable energy also resulted in higher costs for electricity purchases from IPPs.¹⁵

The demand for electricity also fell sharply due to the impact of the global financial crisis of 2008/9 on economic growth and customers, particularly large industrial customers, switching to alternative energy sources as a result of concerns regarding climate change and higher electricity prices.¹⁶ With rising electricity prices and customers' desire to reduce greenhouse gas emissions, natural gas is likely to become a much more competitive and cost effective alternative for South Africa energy consumers.

However, until alternative gas supplies become available through imported LNG or indigenous or regional (Sub-Saharan Africa) gas supplies, the South African gas market is unlikely to see any further expansion and development. Government's efforts to introduce new gas sources through the procurement of an LNG to power project have suffered considerable delays.

Access to gas infrastructure is another barrier facing gas companies. Although there is a legal requirement for third party access to the transmission network (which requires the existence of uncommitted capacity), this does not extend to the distribution network where a voluntary principle applies. Sasol Gas has only entered into one agreement with another gas trader for access to its distribution network, with Spring Lights Gas, a KwaZulu Natal-based trading company. However, the latter's use of Sasol Gas' distribution

¹⁴ Makgetla N., "*The Crisis at Eskom and Industrialisation*", Trade and Industrial Policy Strategies Working Paper, November 2017, p. 3.

¹⁵ Makgetla N., November 2017, *op cit*, p. 3 and Makgetla N., 2017, "*Responses to the electricity oversupply*," Trade and Industrial Policy Strategies Policy Brief: 6/2017, June 2017, p. 5.

¹⁶ Makgetla N., June 2017, *op cit*, p. 1.



network is a result of its historical relationship and not an example of a voluntary agreement in the current regulatory dispensation.¹⁷

The supply of gas and LNG in South Africa

As indicated above, there are two principal sources of gas supply in South Africa, namely natural gas imported from Mozambique by Sasol Gas, and synthetic gas manufactured by Sasol at its Secunda plant. In addition, there are two sources of indigenous natural gas being produced by PetroSA for use in its GTL plant and by Tetra4, which is currently producing relatively small volumes of compressed natural gas (CNG) in the Free State province. As of February 2018, no LNG is produced commercially or imported into South Africa.

CNG is also produced by a few traders who compress natural or synthetic gas after purchase from Sasol or another trader, for on-selling to customers, mainly to be used in vehicles such as municipal buses.

Biogas and landfill gas are produced in small quantities, for example by Novo Energy which produces gas from its landfill project in the Ekurhuleni Municipality in the Gauteng province. The volumes of biogas available are relatively small and this gas is currently supplied only to NOVO Energy's customers as vehicle fuel.

Effectively, the clear majority of gas supplied into the South African market (to end customers) is supplied by Sasol to either other gas traders or end customers.¹⁸

- **Natural gas imported from Mozambique** is transported from production at the Pande and Temane gas fields in Mozambique via the ROMPCO pipeline. ROMPCO is owned jointly by Sasol Gas and the

¹⁷ Historically, Sasol Gas owned 49% of Spring Lights Gas which formed part of an early Sasol black economic empowerment initiative. The remaining 51% was owned by a broad based black economic empowerment consortium. Sasol Gas divested of its interest in Spring Lights Gas in the 2013/2014 financial year.

¹⁸ Teljeur, E., Sheik, F.B., Bowdery, R. & Kika, J., 2015, op cit, p.9.

A number of other entities have been licensed by NERSA for the production of biogas. These include Energy Joburg, Distell, Country Meat (Pty) Ltd., Tshwane Food and Energy, Greenway Farms and Mpfuneko Community. However, the volumes of gas produced by these operations remain relatively small and are not a viable alternative source of supply for current gas customers.



South African and Mozambican governments. The pipeline has a current capacity to transport 158 million Gigajoules per annum.¹⁹

- **Synthetic gas manufactured at Secunda** is produced by Sasol Synfuels, using a coal gasification and natural gas reforming process. Although the gas produced can be used for similar applications as natural gas, it has a different specification, which means it cannot be mixed with natural gas. As a result, it is currently only being supplied to customers in the KwaZulu-Natal and Mpumalanga provinces using a dedicated pipeline system.
- **Indigenous natural gas produced by PetroSA**, the National Oil Company. PetroSA was the only producer of indigenous natural gas in South Africa for many decades, with Tetra4 becoming the second producer in South Africa in May 2016. PetroSA's offshore gas field is located in the Bredasdorp basin that provides feedstock for PetroSA's Gas-to-Liquids ("GTL") plant. This field is close to being depleted. Initiatives have been undertaken to extend the supply of feedstock.²⁰ PetroSA has also engaged in exploration activities in the Mossel Bay area for additional gas reserves.
- **Reenergy Limited** owns Tetra4; (previously Molopo South Africa Exploration and Production), which produces natural gas; operates a gas storage facility; and supplies CNG as a vehicle fuel. Tetra4 has a licence to trade in gas in the Virginia area of Matjhabeng Local Municipality in the Free State.

Currently, the entities trading in and supplying natural gas in South Africa are:

¹⁹ Independent Power Producers Procurement Office, 2016, *op cit*, p16.

²⁰ PWC, 2012, "*An analysis of the potential of the natural gas industry in South Africa*," p.12.



Company	Areas of operation	Size (based on NERSA's competition assessment in 2014)
Sasol Gas Gas trader, gas transmission and distribution pipeline operator.	Supply of natural gas in the Gauteng and Free State areas and synthetic gas in Mpumalanga and KwaZulu-Natal.	Dominant trader with over 80% of the national market for trading of gas to industrial customers; only vertically integrated gas supplier.
Spring Lights Gas Gas trader	SLG purchases synthetic gas from Sasol Gas. Its gas is transported to KwaZulu-Natal via Transnet's Lily pipeline and supplied to industrial and commercial customers in KwaZulu-Natal via Sasol Gas' distribution network.	Between 15% and 30% of the national market for trading of gas to industrial customers.
Novo Energy Gas trader and storage facility operator (CNG).	Novo operates in a number of areas in South Africa, in Gauteng, Mpumalanga, Free State provinces. It sources, processes, gas compresses gas purchased from Sasol Gas, and other traders, and supplies CNG to various private and public dispensing sites, to be used as a vehicle fuel or as a company fuel supply. Novo Energy also supplies a limited amount of landfill gas in the Ekurhuleni Municipality, as CNG to vehicle customers.	Less than 5% of the national market for trading of gas to industrial customers. Approximately 40% of the market for trading of gas to vehicular customers.
Virtual Gas Network (VGN)²¹ Gas trader and storage facility operator (CNG).	VGN procures gas from reticulator Egoli Gas (Reatile Holdings). Its storage facility is in Johannesburg Metropolitan Municipality, and VGN trades in gas (CNG) in 20 geographic areas of Gauteng, Free State, KwaZulu-Natal and Mpumalanga. VGN compresses gas and stores it in stacked cylinder configuration containers (MAT modules). These are then installed	Less than 5% of the national market for trading of gas to industrial customers.

²¹ VGN and NGV are subsidiaries of CNG Holdings.



Company	Areas of operation	Size (based on NERSA's competition assessment in 2014)
	at customer sites.	
Natural Gas Vehicles (NGV) Gas ²² Gas trader	NGV Gas procures its gas from Egoli Gas/Reatile Gas and installs gas filling stations for private and public sector transport and in-house filling stations for large companies.	Over 60% of the market for trading of gas to vehicular customers.
Reatile Gastrade Gas trader	Reatile is licensed to trade gas in the Gauteng area. Reatile purchases gas from Egoli Gas and supplies the gas to other traders. ²³	No estimate of market share as Reatile was not trading at the time of publication of NERSA's assessment.
Renergen Ltd	Renergen Ltd, via its 90% owned subsidiary, Tetra4 Pty Ltd, produces its own gas and is licensed to trade in gas and operate a gas storage facility in the Free State.	Tetra4 currently supplies CNG as a vehicle fuel in small amounts, amounting to less than 1% of the vehicle fuel market.

Source: Lungiswa Energy

There are also a number of small licenced traders of gas which are listed for completeness:

- Columbus Stainless Steel operates a gas distribution pipeline to supply gas to a single customer.
- Spring Lights-CNG is a wholly owned subsidiary of Spring Lights Gas and is licenced to construct a distribution pipeline in Prospecton in the south of Durban, operate a storage facility and trade gas.
- Evraz Highveld Steel and Vanadium Limited was granted a gas trading licence to supply gas to customers in the Mpumalanga province.

The economic advantages of LNG

LNG can be used for various purposes to meet a country's energy needs. Generally, the first use that anchors the construction of the infrastructure

²² VGN and NGV are subsidiaries of CNG Holdings.

²³ Reatile Gas and Egoli Gas are owned by the same holding company, Reatile Group.



required for LNG use is an application of LNG for gas powered electricity generation. However, LNG can also be used for transportation and in natural gas vehicles leading to cost savings, depending on the prevailing gas and petroleum product prices.

Fleet operators have two options to use LNG or CNG as the transportation fuel for their fleets - either convert the existing fleet or purchase natural gas vehicles designed to use natural gas. This requires additional investment which can be recovered through reduced fuel costs, particularly where the gas source is indigenous.

A critical advantage of LNG for use as transportation fuel is that it enables a longer travel range for vehicles compared to CNG. This is particularly important for heavy duty vehicles. As LNG is cooled to a liquid form, it has a higher energy density compared to CNG and takes up only one third of the volume of CNG. Therefore, larger volumes of LNG can be stored on a vehicle enabling it to travel for longer distances.²⁴

The conversion of trucks to use natural gas trucks in a particular country depends on the specific interplay of variables that determine the viability of the use of CNG or LNG. The viability of conversion is affected by the availability and cost of the gas, specifically in comparison to the price of diesel in the country in question, as well as the availability of gas infrastructure such as transmission and distribution networks; and CNG and LNG fuelling stations. Government policy incentives, subsidies and taxes also play an important role in the viability of switching to gas.²⁵

An independent study by Autolytix Data Science "Diesel versus Dual-fuel Analysis," commissioned by Renegen demonstrates that there are substantial potential fuel consumption and cost savings from the use of CNG in long haul transport.²⁶ In particular, the trial involved testing two truck manufacturers' models of a diesel only truck and a diesel dual fuel (DDF) truck using CNG. In model A, the single trailer DDF truck showed an

²⁴ <https://www.afdc.energy.gov/vehicles/how-do-lng-cars-work> and Mohammad M. and Ehsani M., 2015, op cit.

²⁵ International Energy Agency, 2017, *"The Future of Trucks; Implications for Energy and the Environment."*

²⁶ Autolytix Data Science, 2017, "Diesel versus Dual-fuel Analysis," Letter from M. W. Frost Chief Operations Officer of Autolytix Data Science to Stefano Marani, Renegen Limited, 12 November 2017.



improvement in direct fuel consumption of 13.4% over the diesel only truck.²⁷ The total reduction in the cost per kilometre was a significant 25.6%.

These cost savings were attributable firstly to the substitution of diesel by cheaper fuel, CNG instead of diesel; and secondly to a reduction in the overall fuel consumption by 13.4%. Simply put, a direct saving is made because the vehicle uses less fuel to run on CNG and an additional saving is made due to the gas price being lower than diesel on a per litre basis.²⁸

Tetra4 charges a CNG price that is pegged at 75% of the wholesale price of diesel (at a February 2019 diesel price of USD 26.29/GJ this yields a CNG price of USD 19.72/GJ)²⁹ and this has proven to be sufficiently attractive for its customer to utilize CNG.³⁰ This price also provides Renergen with the required returns on its investment.

Similar results were also observed for trials run on double trailer trucks of Model A³¹ and for single and double trailer trucks of Model B.³² This study considered diesel compared to dual fuel engines using CNG. As mentioned earlier, for long haul transport, LNG is even more advantageous.

²⁷ Direct fuel consumption for the diesel only truck was 3.30 kilometres per litre compared to 2.91 kilometres per litre for the DDF truck. Letter from M. W. Frost Chief Operations Officers of Autolytix Data Science to Stefano Marani, Renergen Limited, *"Diesel versus Dual-fuel Analysis"* 12 November 2017

²⁸ The engine conversion cost was not included in the overall saving of 25.6%. The payback period for the conversion kit is however between 7 and 10 months depending on the mileage undertaken by the truck.

²⁹ In 2018 the diesel price of USD 28.9/GJ yielded a CNG price of USD 21.60/GJ, which also proved attractive to the customer. The 2019 calculation uses a ZAR/USD exchange rate of R13.84.

³⁰ The diesel-only truck ran at a cost of R4.16/km compared to R3.10/km for the DDF truck.

³¹ The direct fuel consumption for the DDF double trailer truck showed an improvement of 11.9% over the diesel only truck (R2.01 versus R1.80) and the savings in fuel cost amounted to 22% (R5.26 versus R 6.74).

³² For Model B the results were as follows:

- Single trailer: The direct fuel consumption improvement was 4.8% with the diesel only truck running at 1.83 kilometres per litre and the DDF truck running at 1.92. The fuel cost saving was 19.4% where the cost per kilometre was R 6.73 for the diesel only truck and R 5.41 for the DDF truck.

- Double trailer: The direct fuel consumption improvement was 26.6% with the diesel only truck running at 1.42 kilometres per litre and the DDF truck running at 1.80. The fuel cost saving was 30.7% where the cost per kilometre was R 8.70 for the diesel only truck and R 6.03 for the DDF truck.



Technological advancement in natural gas heavy-duty trucks is also contributing to the potential for fuel consumption and cost savings from switching to natural gas. Truck manufacturers are claiming significant fuel consumption and cost savings for new models of LNG heavy-duty trucks compared to diesel only trucks. For example, IVECO claims its new natural gas heavy duty trucks can achieve up to 15% fuel consumption savings and up to 9% total cost of ownership savings compared to diesel only trucks.³³ Volvo indicates that its new LNG heavy-duty trucks have the same fuel consumption as their diesel models, but at a significant fuel cost advantage.³⁴

An increasingly important advantage of natural gas (either CNG or LNG) is that it can reduce vehicle greenhouse gas emissions compared to diesel. An analysis using the GREET³⁵ model showed that conventional or shale gas used in light-duty vehicles can reduce life cycle greenhouse gas emissions by 11%.³⁶ This effect is even more substantial (83%) if renewable natural gas is used.³⁷

Addressable Market Opportunity

South Africa's natural gas market has, to date, largely been limited to the importation of natural gas from Mozambique's Pande, Temane and Inhassoro fields and the production of synthetic gas from coal at Sasol's petrochemical industrial complex at Secunda. The amount of natural gas produced by PetroSA is used as feedstock in its Gas to Liquids (GTL) facilities and is not sold into the market. Tetra4 is in the unique position of being the only producer of onshore natural gas to emerge since PetroSA commenced its production of offshore gas in the 1970s.

³³ IVECO, "Press Release: New Stralis NP 460: a complete range of natural gas trucks for all missions that hits the sweet spot of the market with its 460 hp of Pure Power", 27 October 2017, available at: <https://www.iveco.com/en-us/press-room/release/Documents/2017/NewStralisNP460.pdf>.

³⁴ Townsend, N., "Gas – the road ahead", Volvo Trucks, 19 September 2017, available at: <http://www.volvotrucks.com/en-en/news/volvo-trucks-magazine/2017/oct/gas-the-road-ahead.html>

³⁵ GREET stands for Greenhouse Gases, Regulated Emissions, and Energy Use in Transportation and was developed by the Argonne National Laboratory. <https://greet.es.anl.gov/>.

³⁶ https://www.afdc.energy.gov/fuels/natural_gas_benefits.html.

³⁷ However, the potential for greenhouse gas emissions savings from conversion to LNG as a fuel source can be reduced due to upstream production and distribution emissions. <http://www.ngvamerica.org/natural-gas/environmental-benefits/>.



The gas imports from Mozambique are limited by the capacity of the existing cross-border pipeline and the available reserves in the relevant gas fields. As the cross-border natural gas project is subject to several agreements between the Government of South Africa and Sasol, and between the governments of Mozambique and South Africa and a Pipeline Agreement governing the ownership and operation of the ROMPCO pipeline, the volume of gas that can be delivered to South Africa is limited by Sasol's ability to supply the identified markets for 25 years from First Gas in 2004. Sasol is obliged to supply at least 120 million GJ per annum to South Africa, as long as the reserves are sufficient to sustain such supply until at least 2029.

As the Mozambican natural gas is not only sold to customers but is also utilised by Sasol in its own GTL facility at Secunda, the spread between the realisable gas price and the price of petroleum products produced utilising such gas is a critical determining factor in the availability of natural gas for the domestic market external to Sasol. Anecdotal evidence suggests that there is a measure of unmet demand, that is, customers who seek gas supply from Sasol or any other licensed trader, but who suppliers cannot or will not supply. In this context, the plight of new entrants in the gas sector is clear, absent an alternative gas supply, the traders are competing to be supplied by the same upstream supplier who competes at the trading and distribution level, namely Sasol Gas.

Over the past 15 years, since the first commercial supply of natural gas to South Africa from Mozambique, the nature and availability of the gas supply and gas infrastructure have remained largely static. Sasol Gas remains the only gas importer/supplier to South Africa; the only gas distribution pipeline provider; and the largest of three transmission pipeline licensees. However, more recently, there have been developments in the South African Government's policy on gas utilisation in the economy that could affect the future growth and development of the industry.³⁸

Efforts to stimulate the South African gas industry by Government's development of a Gas Utilisation Master Plan ("GUMP") and the publication of a Request for Information in relation to gas fired power stations with a capacity of 3 126MW, have not had tangible results to date. The official GUMP

³⁸ Teljeur, E., Sheik, F.B., et al, 2016, '*An assessment of the adequacy of competition in the South African piped-gas industry for the National Energy Regulator of South Africa*,' available: www.nersa.org.za.



has not been published yet and the finalisation of the procurement of the gas-fired power station(s) is unlikely to occur in the short term.

The future market for LNG in South Africa is predicated on three main application options, although in the long run, other applications may become viable:

1. Gas-to-power projects, initially comprising up to three Open Cycle Gas Turbine power stations;
2. Industrial use of regasified LNG; and
3. LNG as a transport fuel, particularly in the heavy-duty truck haulage industry.

The official estimate of LNG demand in South Africa in the short, medium and long-term is summarised in the table below.

Figure 4. Estimated LNG demand in South Africa

Demand in MTPA	Short term (<5 years)	Medium term (5-10 years)	Long term (>10 years)
KwaZulu Natal	0.2	0.6	3.1
Eastern Cape	1.3	1.5	3.9
Gauteng, Mpumalanga and Free State	-	-	3.2
National	1.5	2.1	10.2

Source: IPP Procurement Office, Department of Energy, 2016, "Information Memorandum."

Both in the short and medium term, demand in this estimate is driven by power generation. The Government's view is that in the longer term, other demand, such as new Gas-to-Liquids (GTL) plants and minerals beneficiation plants could be important sources of demand, depending on the delivered gas price. The use of LNG or CNG as a vehicle fuel does not feature explicitly in these estimates.

Internationally, there have been important developments in the use of LNG and CNG as vehicle fuel. In 2016, there were an estimated 16.7 million Natural Gas Vehicles (NGV), ranging from motorcycles to heavy-duty trucks, on the road around the world. The growth rate in all NGVs globally was 20% per annum at that time, with the highest growth in Asia (36%) and Africa (16%).



Some markets have a high penetration rate of NGVs compared to all motor vehicles, for instance 65% in Pakistan and 77% in Armenia.³⁹

Whilst unconventional gas finds, and resultant reduced wellhead gas prices play a catalytic role in the shift to natural gas trucks, the conversion rate often remains highly sensitive to the prevailing fuel taxation regime.⁴⁰

Government policies are another important factor in the conversion of trucks from diesel to CNG or LNG, as is the case in China, where air quality improvement measures are being implemented that provide favourable conditions for the conversion of trucks from diesel to CNG and LNG. Domestically produced LNG proved competitive compared to oil-based alternatives in China's inland provinces.⁴¹

For the purpose of this Report, utilising international conversion rates did not yield meaningful results; given the idiosyncrasies of each market, including the gas availability, tax regime and policy incentives affecting conversion rates.

The market identified by Tetra4 for its natural gas in LNG form consists of vehicular fuel customers (being its primary target market), industrial users, and potential power generation / combined heat and power (CHP) applications. Whilst presently supplying a modest amount of CNG, Tetra4 will, upon completion of the capital raising described in the Prospectus for its IPO, embark on installing the infrastructure to produce its gas and cryogenically convert it to even more efficient Liquefied Natural Gas.

It is important to note that for imported LNG the presumed required anchor customer is a Gas-to-Power (GTP) project, given the high infrastructure costs associated with marine or onshore off-loading, storage and regasification requirements. Domestically produced LNG on the other hand, faces market dynamics with fewer barriers for supply to the identified target market. Indeed, for domestically produced LNG to be supplied to the off-takers, the suitable cryogenic mode of transportation and storage is determined based on the client's off-take and operational requirements and can vary from LNG tankers; to skid-mounted cryogenic LNG containers that are rotated

³⁹ R. Nersesian, 2016, "*Energy Economics: Markets, History and Policy*," Routledge.

⁴⁰ In the past, the US fuel excise taxes provided a benefit to CNG usage, whilst penalizing LNG usage when compared to diesel. New legislation was introduced in 2016, aimed at creating a tax reduction or partial exclusion for alternative fuel trucks. IEA, 2017, *op cit*.

⁴¹ International Energy Agency, 2017, *op cit*.



depending on usage; to LNG vehicle fuel filling stations. The feasibility requirements are therefore more readily satisfied, subject to the entrant having access to a reliable source of gas supply.

Our Report is focused on Tetra4's primary target market segment, namely the supply of LNG as a vehicle fuel in heavy-duty truck haulage. In estimating this addressable market, Lungiswa Energy employed the following methodology.

- 1) Utilising the country's vehicle database, eNatis, official data for currently licensed vehicles was collated per Province.⁴²
- 2) Liquid fuel to gas conversion rates were sourced from a government discussion document: *"Industrialising the KZN-Gauteng corridor through natural gas; Discussion document,"* published in June 2017 by the Department of Trade and Industry.
- 3) The categories of vehicles identified in the eNatis database and in the DTI's study was compared and matched.
- 4) The conversion rates estimated in the DTI study were applied to the eNatis licensed vehicle data and minimum and maximum numbers of converted vehicles were calculated.
- 5) To arrive at our estimate, the number of Provinces was curtailed to the Provinces in which Tetra4 has identified customers (Gauteng, Free State, Mpumalanga, Western Cape and KwaZulu Natal) and was limited to truck conversions only.
- 6) The market opportunity as defined above yielded approximately 40,000 to 67,000 trucks that can be converted from diesel to LNG.

⁴² eNatis stands for: electronic national administration traffic information system and represents the official register for all vehicle and related data. It is available from www.enatis.com.



Figure 5. Estimated number of converted vehicles in the medium term (7-15 years) in Provinces targeted by Renergen (Gauteng, Free State, KwaZulu Natal, Mpumalanga, Western Cape)

Vehicle types according to e-Natis database	Heavy load vehicle (GVM* > 3 500 Kg equipped to draw)	Heavy load vehicle (GVM > 3 500 Kg, not equipped to draw)	Heavy passenger vehicle (12 or more persons)	Light load vehicle (GVM 3500 Kg or less)
Vehicle types identified in DTI study	Long-haul trucking	Long-haul trucking	Minibus taxis & Commercial and municipal buses	Inner-city distribution
Estimated conversion rates (%)	9-15	9-15	10-22.5 ⁺	10-20
Minimum nr of vehicles	22,309	18,064	21,104	245,660
Maximum nr of vehicles	37,181	30,107	47,484	491,319
Total trucking in identified Provinces only (Conservative Estimate)				
Minimum number of trucks				40,373
Maximum number of trucks				67,289
Average				53,831

*Gross Vehicle Mass

⁺ This conversion rate is a composite of the median rate for minibus taxis (8-12%) and the conversion rate for commercial buses (20-25%). The conversion rate for municipal buses in the DTI study is 70-80%, which is disregarded for the purposes of this report, as the available vehicle data does not differentiate between municipal and commercial buses. As a result, the estimate will be more conservative.

Sources: e-Natis data: *enatis.com*, DTI study, authors' calculations

Whilst this estimate is based on government-initiated research pertaining to the South African vehicle fuel market rather than utilisation of international experience or rules-of-thumb conversion rates, there are some caveats that readers should note. The interpretation of the results requires awareness that this estimate was arrived at using province-specific conversion rates for application to a total of five provinces that have different industrial, geographical and infrastructural characteristics.

Moreover, the conversion rates referred to in the DTI study above relate to a delivered gas price at or below USD 7/GJ, which is not necessarily



representative of the realised future price for delivered LNG in South Africa. Gas prices as charged by Sasol Gas for imported natural gas or locally produced synthetic gas, are capped at the maximum gas price, which was 134.36/GJ (USD 9.71/GJ) in November 2017.⁴³ More recently, NERSA has calculated the maximum gas price as R 155.57/GJ (USD 11.24/GJ).⁴⁴ The maximum price applies before the addition of transmission and distribution costs and a trading margin, another approximate USD 2/GJ depending on the location of the customer. Hence the delivered gas price appears on the low side, possibly resulting in an overestimation of the trucks that may convert to LNG in the aforementioned study.

US gas prices have been under pressure from the glut of shale gas finds and are not in the same geographical LNG market as South Africa would be for its LNG imports. For imported LNG a higher delivered price may result from the required additional infrastructure of receiving terminals, storage facilities and pipelines, which add costs to the delivered LNG price.

It is also not clear whether the study was based on fuel consumption figures utilising the latest technological advances. Anecdotal evidence from gas traders' price applications to NERSA indicates that a number of these traders can sell gas (CNG) at a significantly higher price and provide savings to the customer whilst turning a profit. Renergen is currently able to supply CNG at higher prices and still provide meaningful cost savings for its current customer. It is likely that indigenous LNG supply would yield more competitive prices inland in particular given the final cost of importing LNG and moving it inland after gasification, transmission and potential re-liquefaction.

In addition, the conversion rates are likely to be affected by the delivered gas price and the treatment of LNG as a vehicle fuel in terms of the applicable fuel levies and Government taxes. At present CNG is not subject to the same fuel levy that diesel and petrol are subject to, however it is possible that a levy will be imposed in the future, therefore the prospect of a levy should not be disregarded. As transport-related LNG demand is price sensitive, the

⁴³ NERSA, 2017, Reasons for Decision on Sasol Gas' Maximum Price Application, 23 November 2017. The maximum gas price approved by NERSA of R 134. 36 has escalated since then as indicated in the next sentence of the report. The latest actual gas prices charged by Sasol have not been published.

⁴⁴ NERSA, 2018, Update of the Gas Energy GE price and MRP Calculation for the period ending 30 September 2018, available: www.nersa.org.za. A ZAR/USD exchange rate of R 13.84 was used.



estimates included above may be below or above actual conversions depending on the delivered gas price and Government imposts.

It is also worth highlighting that the South African market is unfamiliar with LNG and that lack of awareness of the benefits and safety aspects of LNG as a vehicle fuel may delay wide-scale conversion. Depending on an LNG supplier's willingness to invest in fuelling infrastructure, bespoke and customer fleet-specific filling stations rather than public filling stations may be required in the short term.

We therefore need to bear these shortcomings in mind when referring to the Study's estimated long-term demand for gas from transport users in KwaZulu Natal. The South African Government estimates this to be 28 million GJ based on the abovementioned study, albeit subject to important conditions. The conditions refer to:

- the landed price of gas (below USD 7/GJ);
- a short pay-back period of conversion costs from diesel to gas (less than three years);
- proven effectiveness of LNG for use in South African trucking conditions;
- minimised import duties for parts and equipment;
- tax rebates for operators; and
- a declining cost of conversion for minibuses and commercial buses.⁴⁵

Based on this study, the short-term demand (3-7 years) for diesel substitution in KwaZulu Natal alone is 5 million GJ/a, increasing to 15 million GJ/a in the medium term (7-15 years), and ultimately possibly growing to 28 million GJ/a in the long term (15+ years).⁴⁶

In this regard, it is important to note that the KwaZulu Natal to Gauteng traffic corridor has exceptional freight traffic patterns as it is used to transport imported goods and fuels that are refined at the coast to the industrial heartland of South Africa as well as moving goods destined for export to the coast. The road between Johannesburg and Durban (the Durban-Gauteng Corridor) is the highest use long-haul freight transport corridor in the country.⁴⁷ The amount of freight transported via the Durban to Gauteng

⁴⁵ Department of Trade and Industry, 2017, *"Industrialising the KZN-Gauteng corridor through natural gas; Discussion document,"* published in June, 2017.

⁴⁶ Department of Trade and Industry, 2017, op cit.

⁴⁷ Transport World Africa, 2013, *'Improving logistics between Durban and Gauteng,'* 11 March 2013. Available: transportworldafrica.co.za.



Corridor annually was estimated at 56 million tonnes of freight in 2013, of which approximately 85% is transported via the road network, largely due to inadequacies in the rail and pipeline networks.

Although Government has taken steps to facilitate the optimisation of transport mode for freight, that is shifting freight from road to rail and other appropriate infrastructure, this is likely to take several years to implement. It is estimated that more than 5 million tonnes of freight can be shifted to rail in the short term, reducing the number of trucks in the Corridor by 400 trucks. In the medium term, this reduction can increase by a further 1,400 trucks by reducing the road transport by a further 18 million tonnes.⁴⁸ However, as KwaZulu Natal currently has more than 41,000 licensed trucks, and Gauteng has in excess of 109,000 licensed trucks, the impact of a reduction by 1,800 trucks is relatively minor. This reduction would remain relatively small even when the conversion vehicle estimate is reduced to correct for trucks not active on this corridor; and trucks that are licensed but not in active use.

For a yet more conservative estimate, we can limit the number of trucks to Gauteng or KwaZulu Natal, as representative of the highest number of licensed freight trucks, which is appropriate as the Department of Trade and Industry's estimate pertains to the traffic in the Durban-Gauteng Corridor. Utilising the trucking conversion estimate of between 9% and 15% and applying this range to the number of licensed trucks in Gauteng (192,283), results in an estimate of 17,305 to 28,842 trucks that would be in the market to be converted; whereas applying it to KwaZulu Natal data of 70,451 licensed trucks results in an estimated market of 6,304 to 10,567 trucks that would likely convert from diesel to LNG under the right circumstances.

The potential future LNG production in or supplies to South Africa

South Africa currently does not have the infrastructure required to import LNG in significant volumes. However, the Department of Energy's Integrated Resource Plan, the draft Gas Utilisation Master Plan and the publication of the Preliminary Information Memorandum for LNG to power IPP projects have highlighted Gas-to-Power plants as an important future source of energy. Investment in these plants necessitates the development of LNG import terminals, regasification facilities and transmission pipelines. The Government has established a Gas Industrialisation Unit with the initial focus

⁴⁸ J. Havenga, Department of Logistics, Stellenbosch University, in: Transport World Africa, 2013, *op cit*.



on investigating the importation of LNG for such gas to power plants. Government has also published a Preliminary Information Memorandum for the procurement of potential IPP projects involving LNG to power.

The Preliminary Information Memorandum identifies a number of locations for potential LNG to power projects including Saldanha Bay in the Western Cape Province, Richard's Bay in the KwaZulu Natal province and the Ngqura Port (Coega) in the Eastern Cape province.⁴⁹ The initial timeframe laid out in the Preliminary Information Memorandum for the identification of pre-qualified bidders, engagement with bidders and the release of the final Request For Proposal was to be completed by August 2017.⁵⁰ However, the procurement process has since stalled with little to no progress in the last year. Other than Renergen, no new sources of domestic gas supply suitable for liquefaction have been licensed for production.

Renergen's competitive market position

Renergen's competitive advantage is derived from its access to independent proven natural gas and Helium reserves in the Free State of South Africa, setting it apart from all other licensed gas traders who depend on either Sasol Ltd or other traders on-selling gas they initially obtained from Sasol.

Tetra4's reserves are located approximately 300 km from the main industrial hubs in Gauteng (Pretoria, Johannesburg and Ekurhuleni) and 650 km from Durban with its the existing gas market in KwaZulu Natal Province and potential gas to power developments in Richards Bay (near Durban) and the Coega Industrial Development Zone near Port Elizabeth (approximately 780 km from Tetra4).

Renergen, through its 90% -owned subsidiary Tetra4 Pty Ltd, has a licence for the construction and operation of a gas storage facility consisting of three compressed natural gas tube bundles with a storage capacity of 22m³ each, and a licence to trade in gas for the Virginia area of Matjhabeng Municipality in the Free State.⁵¹ Tetra4 commenced construction of compression facilities in January 2016 which were completed by May 2016, when production and

⁴⁹ IPP Procurement Office, "*Information Memorandum (...)*", 2016, *op cit*, p. 28.

⁵⁰ IPP Procurement Office, "*Information Memorandum (...)*", 2016, *op cit*, p. 56.

⁵¹ NERSA licence to operate a gas storage facility, GALA.s.f3/1524/2014, and NERSA licence to trade in gas, Gala.tr.F1/1525/2014. Renergen acquired Molopo South Africa Exploration and Production Pty Ltd in 2015, and renamed it Tetra4.



supply of CNG to Megabus (South Africa), a bus company which is owned by KAP Industrial Holdings Limited, one of the largest listed logistics companies in South Africa, commenced.

The proven and probable reserves (90% and 50% certainty of commercial extraction respectively)⁵² in this production area have been estimated at 160 billion cubic feet (BCF) or approx. 160 million GJ.⁵³ It is worth noting that due to policy uncertainty with respect to onshore gas exploration in South Africa, Renergen is at a considerable first-mover advantage with its onshore petroleum production rights issued in terms of the Minerals and Petroleum Resources Development Act (2002), which is valid for 30 years. Tetra4 also boasts additional exploration rights in Evander, Mpumalanga in South Africa, which will be further explored once the Virginia field is fully commissioned.

Whilst currently exclusively producing CNG and supplying passenger Megabus with 1 000 GJ of CNG pm, once LNG production starts at the Virginia field, the initial volumes produced are expected to approximate 25 tonnes of LNG per day (approx. 440 000 GJ pa), increasing to about 150 – 180 tonnes per day by 2021. To put this into context, the Gigajoule equivalent of this peak production LNG volume is 2.6 million to 2.9 million GJ per annum, or approximately 1.4% of the current total annual supply of natural and synthetic gas to the South Africa market.

Tetra4 will, upon completion of the capital raising described in the Prospectus for its IPO, embark on installing the infrastructure to bring the full field online which entails the connection of 13 wells to reticulate the natural gas to one centralized processing plant, where the gas is to be treated and cryogenically converted to Liquefied Natural Gas. The processing facility is to be located south of the town of Welkom in the Free State. The pipeline will be of a reticulation pressure.

The initial production volumes enable Renergen to supply an estimated 300 trucks, and the entire proven P1 reserves of 46.8 BCF could supply up to 1,750 trucks for up to 14 years. If only half the probable P2 reserves of 115.6

⁵² The concepts of 'proved; probable and possible reserves' are used here as defined by the Society of Petroleum Engineers.

⁵³ As per an independent assessment of the reserves by MHA Petroleum Consultants, dated 7 February 2018, the P1 (proven) reserve is 46.8 BCF and the P2 (probable) reserve is 115.6 BCF resulting in a combined P1+P2 reserve of 162.4. Source: MHA Petroleum Consultants, 2018, "Evaluation of the Tetra4 Virginia Methane and Helium Gas Fields in the Free State of the Republic of South Africa."



BCF are extracted (57.8 BCF), this would more than double the proven reserves and enable Renergen to supply 3,300 trucks, assuming no sales to other industries.

The specific target market identified by Renergen for Tetra4's LNG consists of vehicular fuel customers, with secondary addressable markets being industrial and power generation (combined heat and power CHP) customers.

As noted above, the heavy-duty vehicular customer market in only five out of nine Provinces of South Africa has been estimated at between 40,000 and 67,000 trucks. Based upon our enquiries, Renergen estimates that it will be able to supply up to 3,300 heavy-duty trucks when it is producing LNG at maximum capacity. This translates into between 4.9% and 8.2% of the estimated addressable market opportunity in South Africa.

In other words, Tetra4 need only convert a fraction of its primary addressable market opportunity to ensure full capacity demand levels. Based on the estimate relating to KwaZulu Natal and Gauteng only, the number of vehicles that is likely to be converted under the right circumstances is between 23,646 and 39,410 trucks. Tetra4 would need to convert only 3,300 or 8.4% to 14.0% of the market in these two provinces to reach sales of its full capacity production.

Conclusion

South Africa's gas market has considerable potential for growth, due to changing relative primary energy costs and Government policies aimed at diversifying the energy mix. However, until alternative gas supplies become available through imported LNG or indigenous or regional gas supplies, the South African gas market is unlikely to see any further expansion and development.

Renergen's competitive advantage is derived from the fact that Tetra4 holds the first and only onshore petroleum production right in South Africa and has access to independent proven natural gas and Helium reserves in the Free State of South Africa, setting it apart from all other licensed gas traders who depend on either Sasol Ltd or other traders on-selling gas they initially obtained from Sasol.



Disclosure

This is an independent report prepared by Lungiswa Energy. Save for the preparation of this Report for which normal professional fees will be received, Lungiswa Energy has no interest in Renergen and no interest in the outcome of the IPO. Payment of these fees to Lungiswa Energy is not contingent on the outcome of the IPO. Lungiswa Energy has not and will not receive any other benefits (including any commissions) and there are no factors which may reasonably be assumed to have influenced the contents of this report nor which may be assumed to have provided bias of influence.

Lungiswa Energy consents to the inclusion of this Report in the Prospectus in the form and context in which it is included. As at the date of this Report, this consent has not been withdrawn.

Standard disclosure

We, the authors, state that we have carried out a reasonable and proportionate search to locate all the documents, which we relay on in this report. We did not search for documents that are not publicly available.

We carried out a search for electronic documents pertaining to the gas market in South Africa contained on or created by the following:

- National Energy Regulator of South Africa website;
- Department of Energy and its predecessor Department of Minerals and Energy website;
- Department of Transport website; and
- Department of Trade and Industry website.

This was supplemented by searches of independent sources and documents supplied by Renergen.

We did not search for documents created before 2005.

Our search was not confined to specific keywords or concepts.

We certify that we understand the duty of disclosure and to the best of our knowledge we have carried out that duty. We further certify that the list of documents set out below, is a complete list of all documents which are or have been in our control and which we are obliged to disclose.



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**Technical
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Gas Reserves**





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Reserve and Resource Evaluation Report

2019 UPDATE ON THE ESTIMATION OF THE METHANE AND HELIUM RESERVES OF THE TETRA4 VIRGINIA GAS FIELD IN THE FREE STATE OF THE REPUBLIC OF SOUTH AFRICA

Reenergen Limited

Prepared for: Mr. Stefano Marani



March 01, 2019

Mr. Stefano Marani
Chief Executive Officer
Renergen Limited
1 Bompas Road
Dunkeld West
Johannesburg, 2196
Republic of South Africa

Re: AN UPDATE ON THE ESTIMATION OF METHANE AND HELIUM RESERVES AND RESOURCES AND ASSOCIATED ECONOMICS OF THE TETRA4 VIRGINIA GAS FIELD IN THE FREE STATE OF THE REPUBLIC OF SOUTH AFRICA

Dear Mr. Marani:

At the request of Renergen Limited (Renergen), MHA Petroleum Consultants (MHA), a third-party, sub-surface consultancy based in Denver, Co., USA, has conducted an update to its March 2018 assessment of the unconventional methane and helium reserves and resources in the Tetra4 Virginia Gas Field, located in the Free State of the Republic of South Africa. This evaluation is primarily an economic update, based on the analysis methodology that MHA has conducted described herein using technical and economic data supplied by Tetra4, has an effective date of March 1, 2019. Material changes to this report are the inclusion of the HDR-1 well as a Proved Developed Producing well, updated CAPEX and OPEX costs, updated currency exchange rates, and an updated field development plan; little of the sub-surface geological interpretation has changed since the previous report. Ongoing work by Tetra4 that may have a positive future impact that is discussed within this report includes the evaluation of a shallow conventional "White Sandstone" play, increased evaluation and definition of the helium market, and future potential of the South Africa liquid fuels market.

This evaluation includes estimates of recoverable methane and helium volumes from Proved Developed Non-Producing wells (PDNP's), Proved Undeveloped locations (PUDs), total proved, probable, and possible reserves. MHA has now added the HDR-1 well as a Proved Developed Producing reserve (PDPs) due to the established history of production and sales of gas to the Megabus fleet. Associated pre-tax net present value of future income for selected discount rates are presented for Reserves volumes. MHA has estimated the volumes of Contingent Resources, those volumes of gases that are discovered but are not yet considered commercially viable for extraction due to one or more contingencies. MHA has also estimated the volumes of Prospective Resources, those volumes of gases that are undiscovered, but the likelihood of their existence can be estimated. Prospective Resources thus carry significant exploration risk. All Prospective Resources volumes presented in this report are un-risked. The estimates of reserves and future net revenue for individual properties may not reflect the same confidence level as estimates of reserves and future net revenue for all properties, due to the effects of aggregation. Further, estimates of Net Present Value, either discounted or

undiscounted, are a calculation of the reserve value at a given date and are not a representation of the fair market value of the company or corporation owning working interest in the project.

The resource and reserve estimates and associated economics contained in this report are prepared in accordance with the Society of Petroleum Engineers (SPE) Petroleum Resources Management (PRMS) guidance and provides a Technical Value, defined as an assessment of a mineral asset's future net economic benefit at the valuation date under a set of assumptions deemed most appropriate by a practitioner excluding any premium or discount to account for market considerations. These estimates are also in accordance with the Australian Stock Exchange (ASX) rules (specifically Listing Rule 05 for Oil and Gas Companies) and in conjunction with the SPE PRMS guidance and specific additional rules. Our evaluation is based upon data supplied by Tetra4, supplemented where necessary by MHA's corporate awareness of current South African industry costs and best practices.

RESERVE AND RESOURCE ESTIMATES

The reserve and resource estimates presented in this report have been prepared for publication in both South Africa under the SAMOG regulatory guides and Australia using an evaluation approach for unconventional resources consistent with Society of Petroleum Engineers Petroleum Resources Management System (SPE PRMS) 2018 and the SPE 2011 PRMS guidelines (attached). The reserve and resource estimates contained in this report have been prepared as of March 1st, 2019 and are generated from the data supplied to MHA from Tetra4. Sustained commercial sales of methane gas from pilots located on the Tetra4 licenses and periodic measurements of the free flow gas volumes from multiple blowers, some producing for decades, allow estimation of the gas production decline rate and thus ultimate recoverable volumes of gas.

Estimated net methane and helium reserves and net present values at Tetra4 specified discount rates are summarized in Table 1. For the purposes of clarification the use of the abbreviation 'M' equates to millions throughout this text and the abbreviation of 'm' equates to thousands. MHA has calculated the economics according to the assumptions detailed in the following report and are presented in Table 1 as both Undiscounted (NPV=0), breakeven, and at various discount factors to assist the investor as different investors prefer to use different discount factors in evaluating assets. MHA makes no recommendation as to preference of which discount factor to use.

Table 1: Summary of Methane and Helium Net Gas Reserves and Net Present Values at Selected Discount Rates

Virginia Gas Project – Specified Prices and Costs

	PDP	PDNP	PUDs	Total Proved (1P)	Probable	Proved + Probable (2P)	Possible	Proved + Probable + Possible (3P)
Methane (BCF)	.89	13.29	26.57	40.76	98.23	138.99	145.18	284.18
Helium (BCF)	.03	0.33	0.65	1.01	2.39	3.41	3.45	6.86
Net Present Value (MZAR)								
Undiscounted	466	6,462	13,440	17,069	50,367	64,477	75,065	135,196
5%	231	3,471	5,820	7,995	20,988	27,754	30,430	56,387
8%	172	2,580	4,049	5,599	14,369	19,059	20,481	38,224
10%	146	2,170	3,303	4,541	11,620	15,375	16,376	30,624
15%	106	1,502	2,175	2,878	7,516	9,788	10,301	19,242
20%	83	1,113	1,562	1,945	5,318	6,758	7,092	13,162
30%	58	695	934	978	3,104	3,699	3,929	7,127

Unrisked net Contingent Resources were calculated from the technically recoverable gas volumes for each type well multiplied by the number of locations in the portion of the Virginia Gas Field classified as Contingent Resources and, in the case of helium, multiplied by a constant helium content of 3%. These gas volumes were combined with the same prices and costs used for estimating Reserves to obtain the net Contingent Resources in Table 2 below.

**Table 2: Summary of Net Methane and Helium Contingent Resources
Virginia Gas Field – Specified Prices and Costs**

Category Contingent Resources (BCF)	Low Case (C1)	Best Case (C2)	High Case (C3)
Methane	237.3	435.9	648.5
Helium	7.9	14.4	20.9

Unrisked gross Prospective Resources (Table 3) were calculated volumetrically as the technically recoverable gas volumes for each type well multiplied by the number of locations in that portion of the Virginia Gas Field classified as Prospective Resources. No economics were calculated for methane Prospective Resources, and no helium Prospective Resources were estimated as part of this work.

**Table 3: Summary of Gross Methane Prospective Resources
Virginia Gas Field**

Category Prospective Resources (BCF)	Low Case	Best Case	High Case
Methane	640	1,278	2,069

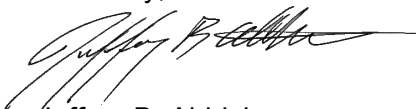
PROSPECTIVE RESOURCES: *The estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further exploration appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons.”*

STATEMENT OF RISK

The accuracy of resource, reserve, and economic evaluations is always subject to uncertainty. The magnitude of this uncertainty is generally proportional to the quantity and quality of data available for analysis. As a prospect, project, or well matures and new information becomes available revisions may be required which may either increase or decrease the previous estimates. Sometimes these revisions may result not only in a significant change to the reserves and value assigned to a property, but also may impact the total company reserve and economic status. The resources, reserves and economic forecasts contained in this report were based upon a technical analysis of the available data using accepted geoscience and engineering principles. However, they must be accepted with the understanding that further information and future reservoir performance subsequent to the date of the estimate may justify their revision. It is MHA's opinion that the estimated resources, reserves, economics, and other information as specified in this report are reasonable, and have been prepared in accordance with generally accepted geoscience and petroleum engineering and evaluation principles. Notwithstanding the aforementioned opinion, MHA makes no warranties concerning the data and interpretations of such data. Neither MHA, nor any of our employees have any interest in the subject properties and neither the employment to do this work, nor the compensation, is contingent on our estimates of the resources or economic evaluations for the properties in this report. This report was prepared for the exclusive use of Renergen and will not be released by MHA to any other parties without Renergen's written permission (other than the stated purpose set out above). The data and work papers used in this preparation of this report are available for examination by authorized parties in our offices.

Thank you for this opportunity to be of service to Renergen. If you have any questions or wish to discuss any aspect of the report further, please feel free to contact me.

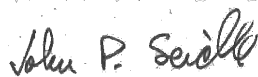
Sincerely,



Jeffrey B. Aldrich

Partner
MHA Petroleum Consultants

John P. Seidle



Partner
MHA Petroleum Consultants

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BACKGROUND

Renergen's Tetra4's South Africa Virginia gas project, which is located in the Free State, is approximately 250 km southwest of Johannesburg. The exploration and production rights, which combined are known as the Virginia Gas Project, covers a large area where gas emitting boreholes have been identified from mineral exploration activities. Several of these boreholes are flowing gas at high production rates and have been doing so for decades. Past studies have conducted a work program which involved the cataloging and sampling of the gas emitting boreholes, a soil gas geochemistry survey, and structural mapping. The gas emitting boreholes, or "blowers," were drilled by mining companies to explore for gold in Witwatersrand formations which underlie the coal-bearing Karoo and Ventersdorp lavas. Some flowing wells were capped because of what was regarded as dangerously high gas emission rates. Tetra4 now owns 100% working interest in 187,427.2189 hectares (Figure 1) that currently has 18 wells currently producing gas and 28 wells that are known to have produced gas in the past but are now currently capped.

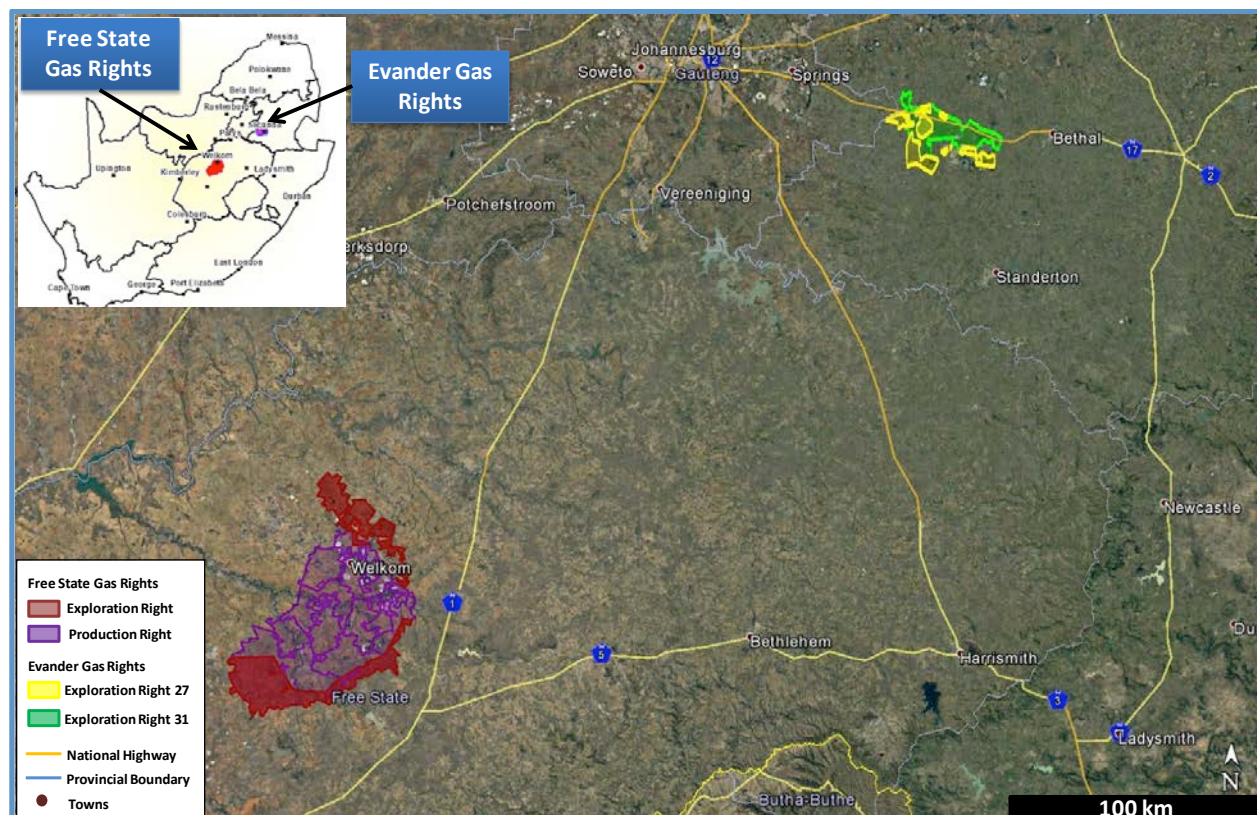


Figure 1: Location Map

The Tetra4 Production License is subject to a 5% state tax plus an overriding royalty (ORRI) on certain concurrent leases that are owned by GFI Mining South Africa (GFIMSA) of Goldfields. The Goldfields ORRI is an additional 1% on top of the state tax on all wells and locations that are located within the Goldfields mining leases. These two reductions in the revenue stream, the state tax, and the GFIMSA ORRI, have been accounted for in the economic analysis.

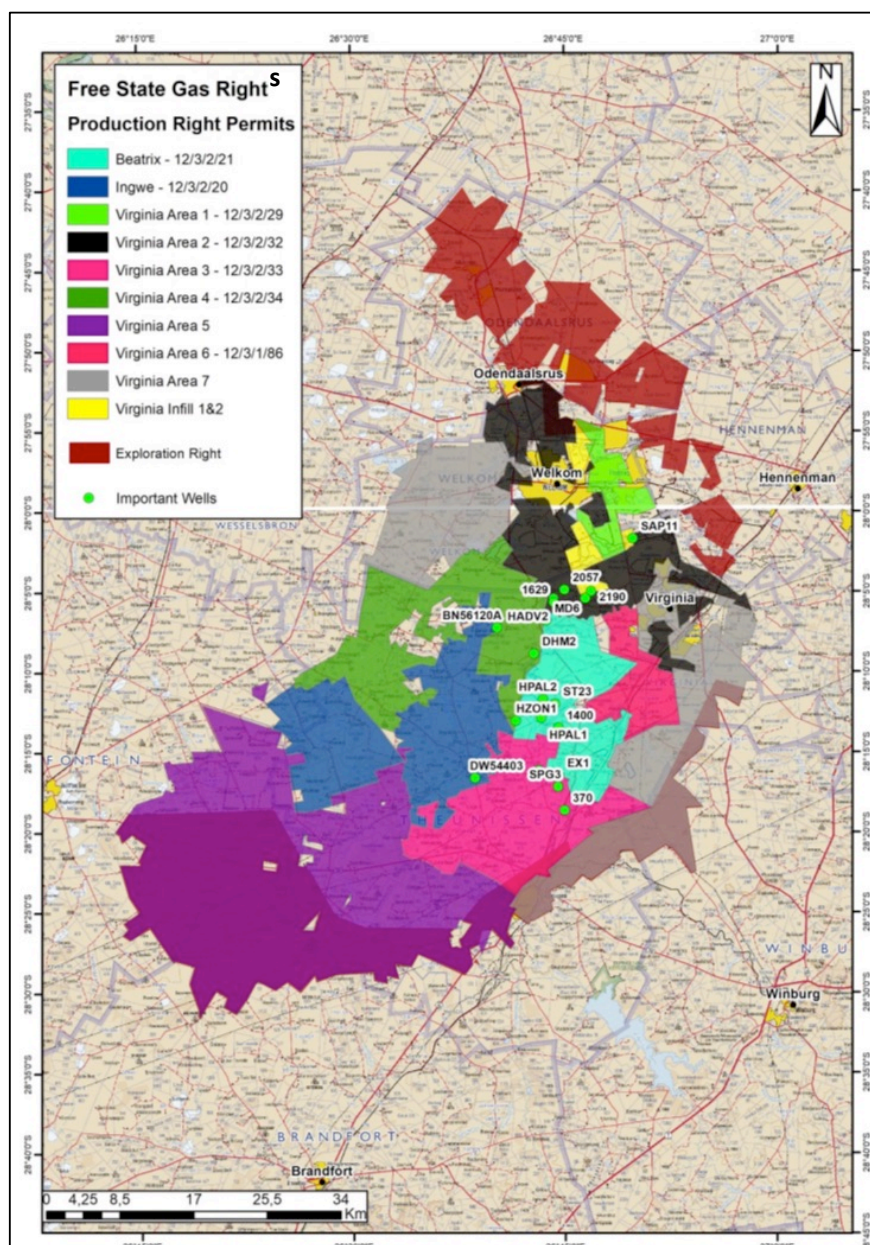


Figure 2: Permit Map

GEOLOGY

REGIONAL GEOLOGY

The Virginia Gas Field Project overlies Witwatersrand Precambrian age Supergroup of meta-sediments that host the Welkom Goldfield. These 'basement' lithologies have been tectonically flexed into a large north to south trending anticline that is in turn bisected by a large extensional graben (low area) and many large faults that extend deep into the earth's crust. Uncomfortably overlying the Witwatersrand Supergroup is the Venterdorp Supergroup of primarily volcanic lithologies. Many of the larger faults do not extend beyond the upper Ventersdorp formations. After another large unconformity lies the Karoo Supergroup, a Permian aged sedimentary section composed of sandstones, coal seams and carbonaceous shales. There is often a basal glacial deposit on top of the unconformity that separates the Karoo from the Ventersdorp known as the Dwyka Tillite.

The primary source of the Methane gas is primarily microbial in origin from deep within the Witwatersrand Supergroup with groundwater circulating through the large faults and coming in contact with bacteria living deep within the crust. Methane isotope studies demonstrate that very little, if any, of the methane can be attributed to the Karoo coal beds or the carbonaceous shales. Thus, the methane is a biogenic and a continuing renewable resource. Being a renewing resource conventional in-place, static, estimates of gas volumes are not applicable and the authors of this study have instead relied on pressure decline analysis. The helium, as with almost all helium around the world, is either mantle-derived, that is from deep within the earth or from decay of radioactive minerals within the crust, and as the helium moves up the large faults mixes with the microbial methane in the deep subsurface. The rate of recharge of the methane, and thus also the helium, gas is not known. There is anecdotal evidence of historic blowers within the Tetra4 license area producing methane gas for over forty years without any discernable pressure drop however there are no quantified studies to date.

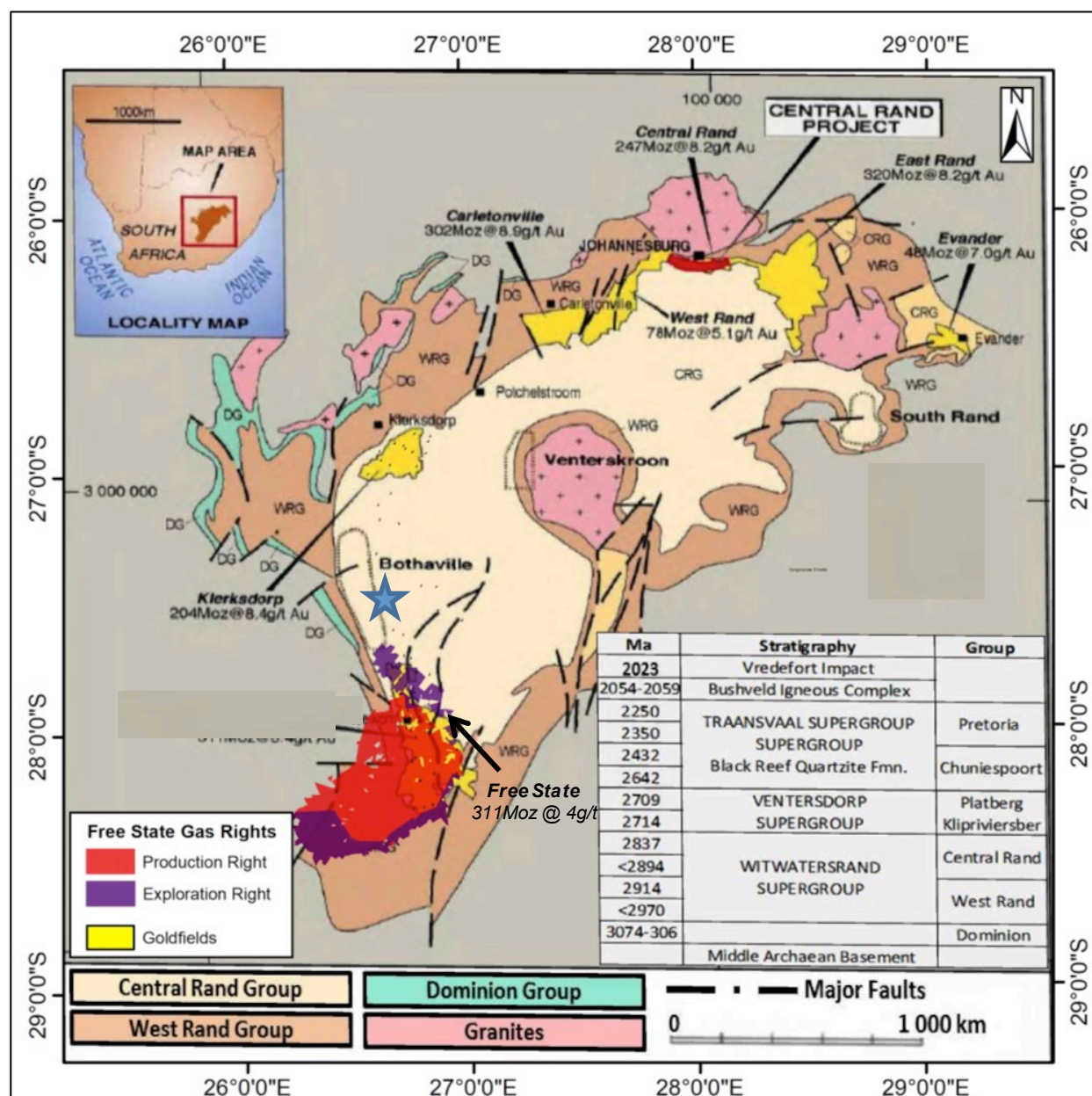


Figure 3: Regional Geologic Map of the surface geology.

The Virginia Gas Project is annotated in the southwest corner of the map.

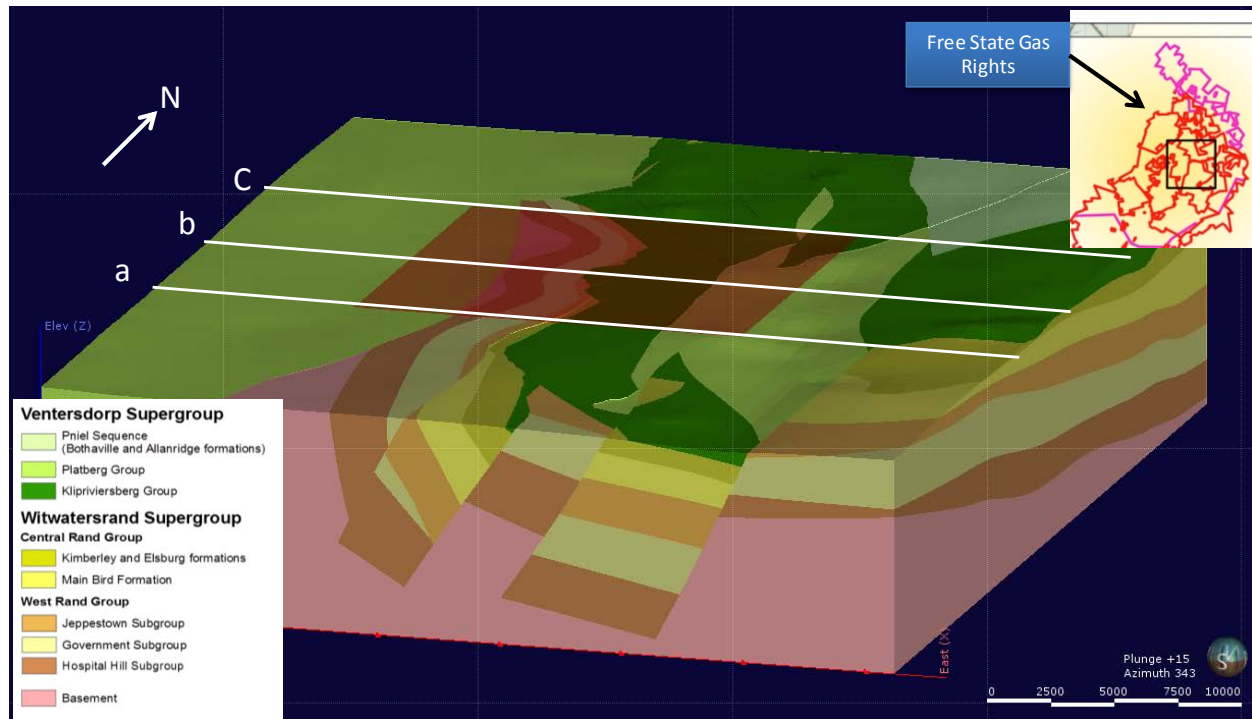


Figure 4: Map of Known Rand Group Faults

The known gas wells are associated with the wells intersecting the faults that penetrate the Witwatersrand Supergroup.

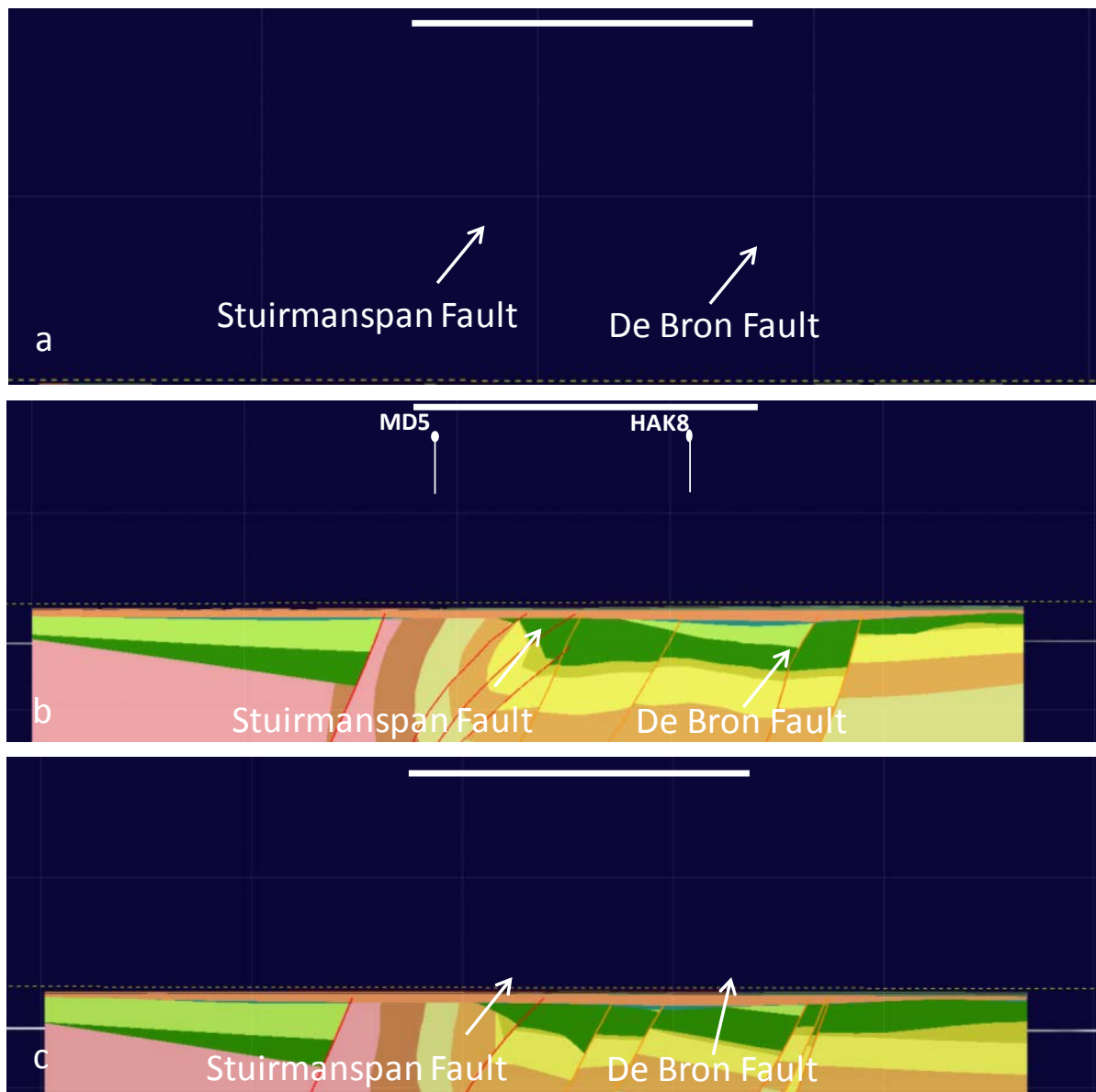


Figure 5: West to East Cross-Section within the area of the Virginia Gas Project

Demonstrating the tilted nature of the rock strata and the penetration of the faults into the Witwatersrand Supergroup.

EXISTING WELLS AND PRODUCTION HISTORY

HISTORIC WELLS

There are nearly two thousand wellbores which have been drilled, either for water, mining assessment, or for disposal, across the Welkom District over the past several decades and many tens of these wells have naturally produced flammable gas and have been called “blowers.” Data from the South Africa Council for Geosciences lists at least 136 historic wells within the production area and notes that 68 of them produced gas in the past, 18 are currently producing gas (blowers), 29 have odors, and 28 are dormant.

EVALUATED WELLS

Twelve wells were evaluated for the original 2008 Molopo reserves evaluation study (Burning Flame, Burning Cross, Flame 1, ML-1, Retreat, Sand, SP-3, Squatter, DBE-1, Kotze EX-1, ST23, and Tewie). Molopo drilled three additional wells in 2009 (HADV1, HADV2, and HADR1). Tetra4 took over the project and drilled 4 wells in 2016 (MDR1, MDR4, MDR5 and 2057) and in 2017 reworked an older well that had resumed flowing gas (2190).

For the 2019 update MHA has included a new well that Tetra4 drilled in 2018, the T4 WN 01, which was drilled to test a shallow conventional sandstone play, plus 12 historic wells or vents (AD1A, SH3, P7, W1, SP8, TR3, TR4, TR5, TR6, TR7, TR8, and AL4) that were described in the publication of Hugo, P.: *“Helium in the Orange Free State Gold-Field”* (1963) which documented these wells and vents as far back as 1957. Using the published data and on-site verifications, as possible, these wells were added to the Tetra4 database. The importance of this data is twofold, A) the new well opens an additional play for Tetra4 within the lease area and B) the data from the historic wells support both the longevity of the wells and the gas composition; including the high helium concentrations.

METHODOLOGY

Tetra4 delivered to MHA driller's logs, completion reports, LAS files, gas analysis reports, production test data, and license data from the Virginia Gas Fields Project in the Free State in South Africa.

MHA reviewed the well data, LAS files, gas analysis reports, production test data, and historical geological data to ascertain the source of the gas, reservoir conditions, reservoir extents, Tetra4 development plans and market conditions.

Table 4: List of Existing Blowers (PDNP wells)

Tetra4 Existing Methane Producers		CH4 Producer	He Producer
HDR 1		X	X
BEI 02		X	X
Burning Cross		X	X
EX 1		X	X
Highpipe		X	X
HZON 1		X	X
MDR 5		X	X
ML 1		X	X
Retreat		X	X
ST 23		X	X
SPG 3 \ Lucky		X	X
Squatter		X	X
Tewie-1400		X	X
Burning Flame		X	X
DBE 1		X	X
SP 3		X	X
Flame 1		X	
Sand		X	
BN 56120A		X	X
2190		X	X

VOLUMETRICS

PAST STUDIES

Volumetric Assessments have been conducted by MHA Petroleum Consultants in 2008 and by Venmyn-Deloitte in 2015 and 2016. The 2008 MHA study analyzed 12 existing blowers and concluded that the best well annual decline rates ranged from 3 to 7% with an economic cutoff of 30,000 scf/day. Initial production rates ranged from a low of 150,000 scf/day to a high of 380,000 scf/day with a best case of 260,000 scf/day. The MHA study determined that the Estimated Ultimate Recovery (EUR), on a per well basis of marketable gas, varied from a Low case of 0.9 BCF to a High Case of 2.6 BCF with a Best Case of 1.7 BCF.

The 2016 Venmyn-Deloitte assessment was done after the HADV1, HADV2, HDR1, HPAL1, HZON1, MDR1, MDR4, MDR5, and 2057 wells were drilled. In drilling these 9 wells, there were 7 wells with gas shows and 5 wells that had sustained gas production. The Venmyn-Deloitte report

concluded that the annual decline rates averaged from 2 to 6% but did not use an economic cut off to calculate the EURs. They ran their range of Initial Production rates from 140,000 scf/day to 300,000 scf/day and used 150,000 scf/day as the Best Case. The production runs were allowed to run out 49.5 years into the future, which gave a slightly optimistic EUR. The EURs that were presented in the report ranged from a Low case of 0.9 BCF to a High Case of 3.5 BCF.

The 2008 MHA report assigned 54 locations to the P2 (Probable) Reserve Category, an additional 63 locations to the P3 (Possible) Reserve Category, and no locations to the Proved Category. There were 357 locations assigned to the Contingent Resources Category.

The 2016 Venmyn-Deloitte report assigned 52 locations to P1 (Proved), 60 to the P2 (Probable), and 128 locations to P3 (Possible). Thus far, at best 17 wells that have tested gas, and a drilling program that has about a 60% commercial success rate Venmyn-Deloitte assigned 240 well locations to the Reserve Category and with 22% of the locations having a 90% confidence factor of delivering the base case EUR. There were no Contingent Resources assigned.

In 2017 MHA conducted another assessment (below) for IDC reviewing the updated test information and new wells. This report, prepared for an update on the JSE Stock Exchange News Service, draws substantially from the IDC Report, with permission from IDC. It uses the IDC 2017 Reserve and Resource volumetric assessments but generates a different economic analysis based on the complete 1P-2P-3P volumes of gas rather than a limited first phase field development plan that was used for the 2017 IDC report.

2017 Assessment

MHA reviewed the updated test data from the HADV1, HADV2, HDR1, HZON1, MDR1, MDR5, and 2057 wells plus addition flare and test data from selected historic blowers. This data confirmed but did not alter, MHA's original assessment of a range of well performance and lacking sustained, long-term, well production data MHA did not change either the range of expected decline rates nor the range of expected EURs for the wells. MHA expected the current ranges captured the inherent uncertainties and as more data is made available through sustained production the range of uncertainties will be reduced.

The continued drilling and testing, plus the advancement of gas sales agreements and Tetra4's advancement of development and marketing plan allowed MHA, in 2017, to elevate many of the locations into the PROVED category. MHA assigned Proved, Developed, Non-Producing (PDNP) status, on a project basis subject to the submitted Tetra4 development plan and budget, to all wells that have tested significant rates of gas and assigned two offset Proved Undeveloped (PUD) locations to each well, except for well MDR5 which has no offset locations. Thus, MHA assigned 18 PDNP and 34 PUD locations for 52 Proved well locations. In addition, MHA assigned 4 Possible and 4 Probable well locations for seventeen PDNP locations; thus, there were 68 Possible and 68 Probable locations for a total of 188 total Reserve locations. All offset wells were expected to be drilled on a spacing of about 1well\ 0.91 km² or 225 acres. It is important to note that wherever MHA has assigned an undrilled location, it is for the purposes of accounting for undrilled reserves and may not be the exact location that Tetra4, for operational or permitting reasons, chooses, to drill. All wells in the program and economics were planned as vertical wells;

however Tetra4 had expressed interest and had started planning for slant wells that might intersect more fault and fracture surfaces. As this style of wells had not been executed as of the time of this report MHA did not include them in the economics nor construct a type curve for these wells, however as Tetra4 demonstrates its ability to execute these style of wells and these wells have improved economics it is possible that, with measurable flow data, MHA will be able to forecast increased recoveries per well with slant or horizontal style wells.

2019 Assessment

MHA has reviewed the updated production from the HDR1 well, plus limited single test data from other wells that are not currently on production and the data from the 2018 Tetra4 T4 WN 01 well that was drilled to test the shallow “White Sand” play towards the eastern edge of the license. MHA has also reviewed the Tetra4 updated drilling schedule, OPEX and CAPEX costs and sales agreements in order to update the MHA financial model.

The “White Sand” play is a Permian Karoo age sandstone that was identified in a 44 borehole study by Shango Solutions commissioned by Tetra4 as part of a broader study of the fractured basement play. Gas flows from the Permian sandstone were identified in 3 wells (2057, 2089, and HAK4) and a 3D model of the sandstone was developed. Tetra4 extended that model and drilled the T4 WN 01 well beyond the initial boundaries defined by Shango Solutions and encountered 73 meters of gas bearing Karoo sandstone and siltstone with the well. This well did not test gas at commercial rates however the potential for this play, as a conventional, low pressure, gas resource, to potentially add to the future resource and future reserve base of Tetra4 has been established by four wells penetrating the sandstone over a wide area, each with good gas content. As Tetra4 continues to evaluate this play MHA will use the new data to assess the ability to add new volumes to Tetra4’s reserve and resource base.

Additionally, Tetra4 has added data from 2 existing blowers to the database and MHA has reviewed this data and confirmed that both wells, BN 56120A (AKA Dumidi) and 2190 (AKA Big Flame) are Proved Developed Non-Producing (PDNP) wells, and each will have 2 offset, Proved Undeveloped (PUD) locations, 4 Probable, and 4 Possible locations assigned to each well for a total of 22 new reserve well locations. These new reserve locations and volumes are removed from the Contingent Resource volumes of the 2018 Report.

Based on this discussion the Technically Recoverable Methane Volumes associated with the reserve categories are referenced in Table 5. A potential risk is that the rate of recharge of the methane, and thus also the helium, gas is not known. There is anecdotal evidence of historic blowers within the Tetra4 license area producing methane gas for over forty years without any discernable pressure drop however there are no quantified studies to date.

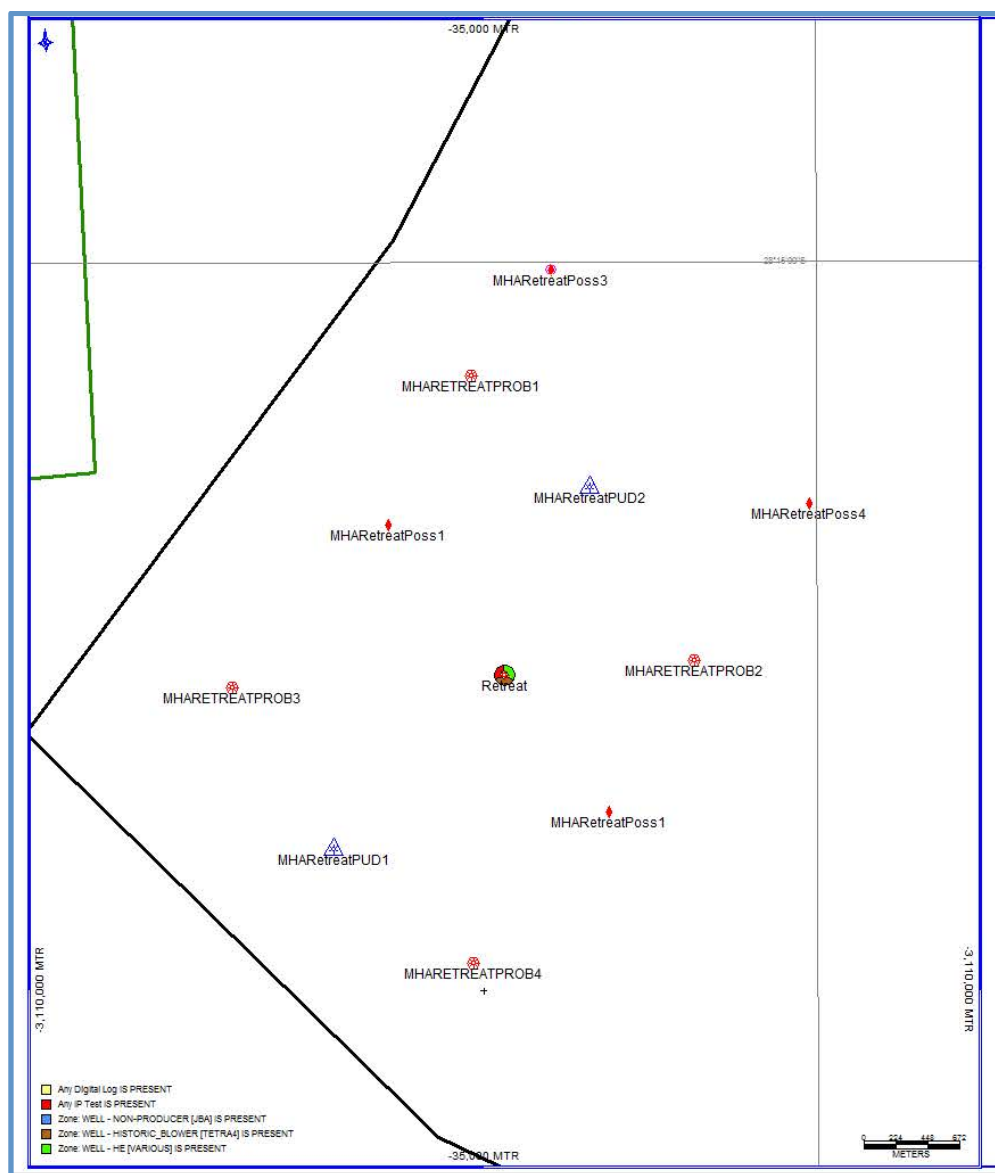


Figure 8: Idealized Spacing of New Field Development Wells

Idealized spacing of an existing Blower (Retreat) and a symmetrical spacing of two PUD wells (blue triangles), four Probable wells (red hexagons), and four Possible wells (small red diamonds).

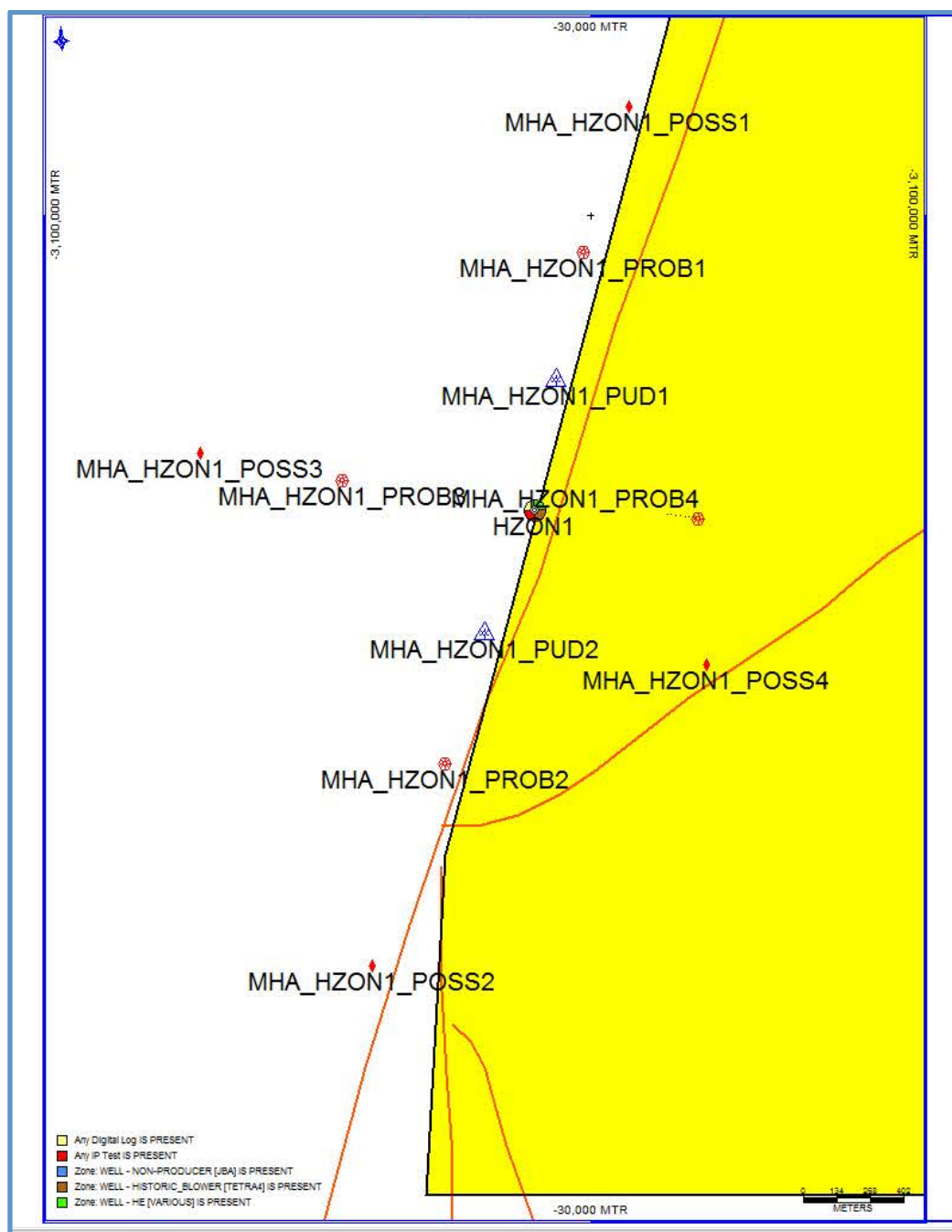


Figure 9: Typical Spacing of Field Development Wells Influenced by Faults

A more typical development scenario where wells are spaced out along known fault and fracture spacing around an existing blower, HZON1 with two PUD wells (blue triangles), four Probable wells (red hexagons), and four Possible wells (small red diamonds).

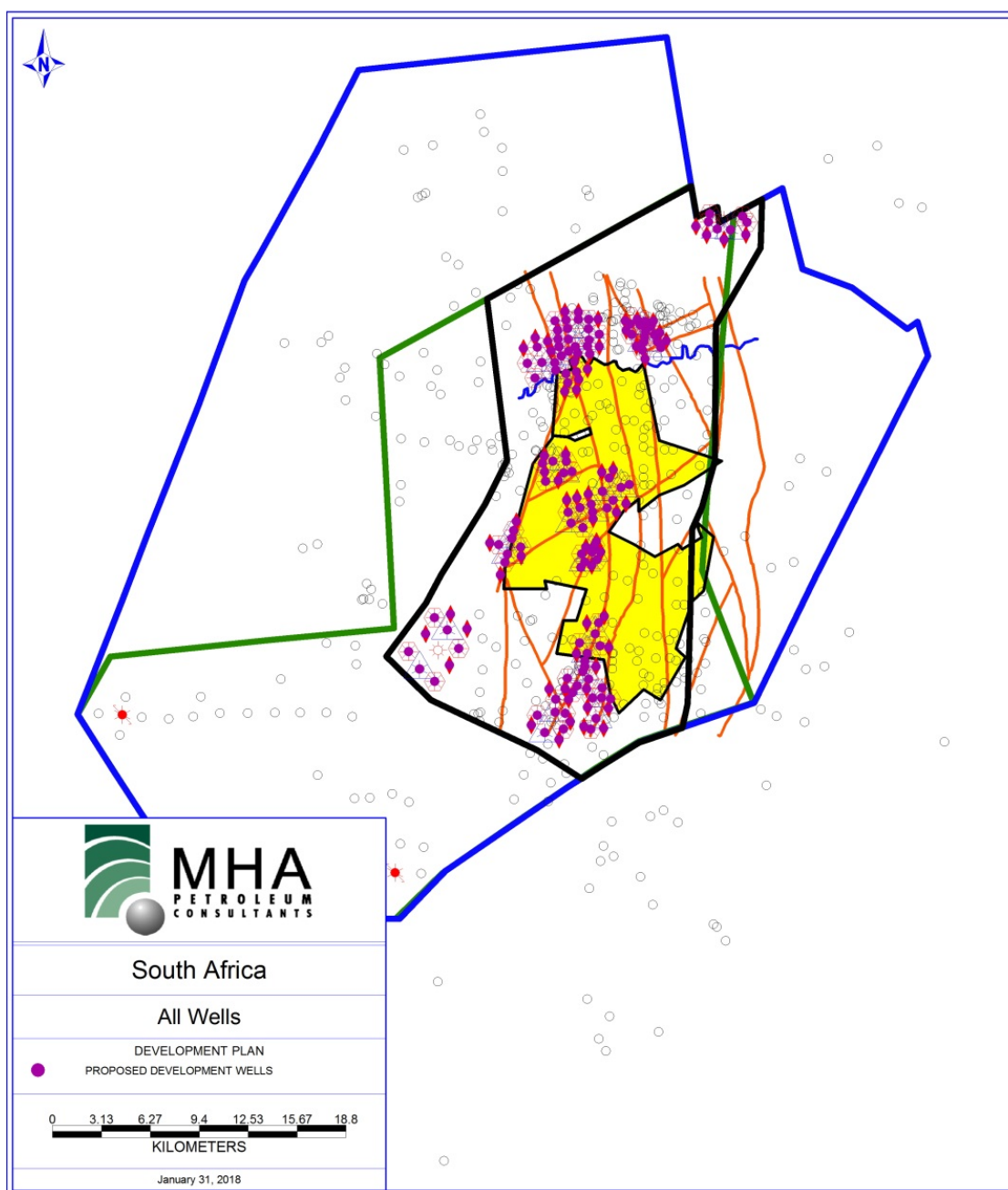


Figure 10: Map Proved, Probable and Possible well locations

Map of the existing wells and the future wells with Proved locations (Blue Triangles with purple centers), Probable locations (Red Hexagons with purple centers) and Possible locations (small Red diamonds with purple centers). In the black outline is the area defined as the “Core Area” for the Contingent Resources. All Prospective Resources are outside of the “Core Area.”

Table 5: Technically Recoverable Methane Volume Estimates-Virginia Gas Field

Category	Recoverable Volumes (Bcf)		Totals (Bcf)
	Developed	Undeveloped	
Proven (1P)	15.7	29.5	45.3
Probable (P2)		109.2	109.2
Possible (P3)		161.3	161.3
Total (P+P+P)	15.7	297.0	315.8

Possible reserves are those additional reserves that are less certain to be recovered than probable reserves. There is a 10% probability that the quantities actually recovered will equal or exceed the sum of proved plus probable plus possible reserves

MHA has defined a core area that has been delineated by drilling and testing within the production license of 505.12 Km². Within that area are 19 development locations of 11 wells each (209 well locations) and a reserve development area of approximately 190 Km² or 0.91km²/well. Possible reserves are those additional reserves that are less certain to be recovered than probable reserves. There is a 10% probability that the quantities actually recovered will equal or exceed the sum of proved plus probable plus possible reserves. Removing the 190 Km² that have been assigned to the Reserve area from the total 505.12 Km² in the core production area leaves 315.12 Km² of area in the Contingent Resource Category. With a well spacing of 0.91 Km²/well that equates to 346 contingent wells. MHA assigned volumes to these wells probabilistically using a range of EURs, with the C1 category of 0.9 BCF/well, C2 category 1.7 BCF/well and C3 category 2.6 BCF/well. **Contingent Resources are considered discovered; however, there is no certainty that it will be commercially viable to produce any portion of the resources.**

Table 6: Technically Recoverable Contingent Methane Volume Estimates of the Virginia Gas Field

Category	EUR/Well	Total BCF
Contingent (C1)	0.9	294.8
Contingent (C2)	1.7	529.7
Contingent (C3)	2.6	952.0

MHA has assigned all of the production area outside of the defined core area as Prospective Resource area. This area has historic gas blowers on the license, there are existing deep gold and other metal mines and there are, in the South African Geologic Survey and literature, mapped faults that extend deep into the sub-surface. There is reasonable expectation that there will be the same type of gas occurrences within the rest of the production area however neither the historic operators nor the current operators of the license have delineated the resource to an extent that it can be considered a Contingent Resource. MHA has taken the same range of EURs/well as in the Contingent Resource area but has, until there is sufficient information to

warrant updating the evaluation, doubled the distance between the wells from the well spacing used in the Contingent Resource evaluation area to 1.82 Km²/well. **There is no certainty that any portion of the resources will be discovered. If discovered, there is no certainty that it will be commercially viable to produce any portion of the resources.**

The entire production license is 1,874.2 Km² and once the 505.12 Km² core production area is removed there remains 1,369.08 Km² of Prospective Resource area. Using a 1.82 Km²/well density that will equate to an unrisked, a potential 752 wells. MHA has run a probabilistic distribution of recoverable volumes using the range of EURs calculated for the recoverable methane in the development area. No helium is assessed as there is insufficient information at this time.

Table 7: Technically Recoverable Prospective Methane Volume Estimates of the Virginia Gas Field

Category	EUR/Well	Total BCF
Prospective Resource Low Estimate	0.9	640.6
Prospective Resource Best Estimate	1.7	1,278.4
Prospective Resource High Estimate	2.6	2,068.9

PROSPECTIVE RESOURCES: *The estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further exploration appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons.*

TECHNICALLY RECOVERABLE HELIUM RESERVES

MHA has used the He concentration data supplied by Tetra4 to map the spatial distribution of He enrichment in the produced gases. Seven of the tested wells tested Helium (He) concentrations at least 2% by volume or greater, and some of wells tested over 10%; including the 2057 well. The 2016 Venmyn-Deloitte report made the assumption that all wells would produce an average of 2% He and all wells would be scrubbed for He and the He sold. MHA has used the data available and mapped out the He concentrations by well and found that there appears to be a significant enrichment trend on the west side of the De Bron fault with all wells to the east of the fault showing no testable He concentrations, at least until you cross the Virginia fault and move further east. Only the AD1 well, outside of the production license and well to the east of the Virginia fault, shows enrichment of He gas on the eastern side of the production area. It is very important to note that there is A) a sparsity of well sampling over the structural high, B) most of the wells that did have gas compositional sampling did not sample for helium, and C) there is anecdotal evidence that even those wells that attempted to sample for helium used improper methodologies. It is, therefore, a distinct possibility that there is sufficient helium concentration over the entire lease for gathering and commercial sales and once sufficient data is gathered the maps are subject to revision.

This area of low to zero concentrations coincides with a structural high of the Base of the Karoo. All other known readings of He gas east of the De Bron fault until the Virginia fault is crossed, appear, at this time until more data is available, to have low to zero enrichment of He. Thus, MHA has assigned He reserves only to a mapped area in the center of the production license but has increased the average He concentration in those wells to 3-4%. Gas percentages of up to 4% are found in this zone and an average He concentration of 3.05% over 202.4 Km² has been mapped. Within the mapped He concentration area MHA has 7 known blowers or wells that all have tested greater than 2% He concentrations. Within the concentration area, MHA has mapped an additional 14 Proved well locations, 26 Probable well locations, and 27 Possible well locations. The estimated volumes of technically recoverable helium are shown in Tables 8 and 9.

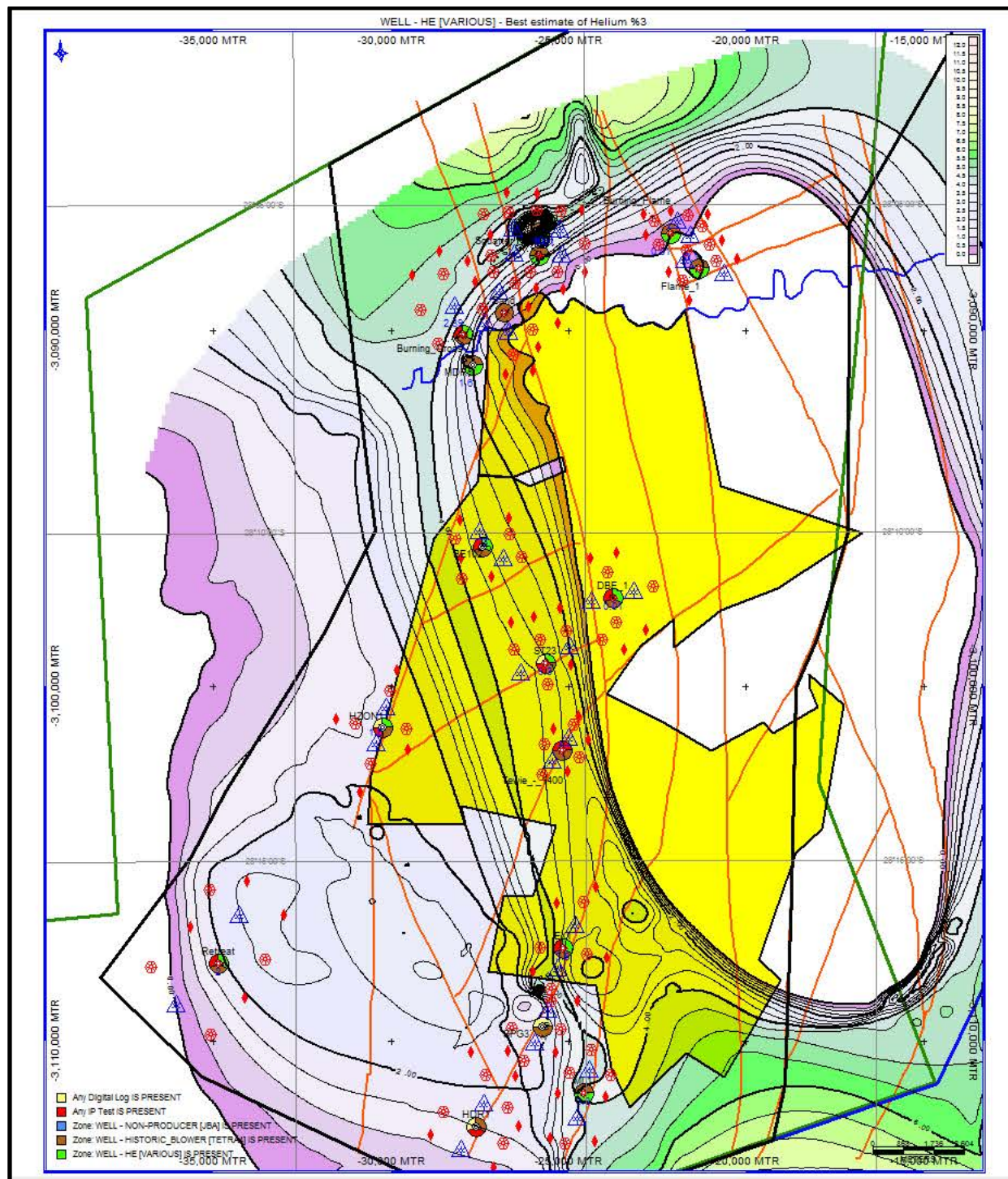


Figure 11: Map of Helium Concentration in %

Wells with measured helium concentrations have green annotations. The Yellow polygon is the area of the Goldfields Mining Lease.

Table 8: Technically Recoverable Helium Estimates of the Virginia Gas Project

	# of Wells	EUR (BCF)	He%	He/Well (BCF)	Reserves
PDP	1	1.2	0.0305	0.0366	0.0366
Proved Dev NP	14	0.9	0.0305	0.02745	0.3843
PUD	28	0.9	0.0305	0.02745	0.7686
Prob	56	1.7	0.0305	0.05185	2.9036
Poss	56	2.6	0.0305	0.0793	4.4408
Total (P+P+P)	155				8.5339

Table 9: Technically Recoverable Helium Volume Estimates by Contingent Resource Category - Virginia Gas Field

Number of Wells	Low Case (C1) (Bcf)	Best Case (C2) (Bcf)	High Case (C3) (Bcf)
346	10.1	19.1	29.2

ECONOMICS

TETRA4 OPERATING CONDITIONS AND SALES AGREEMENTS

Tetra4 operates under a Production License from the Petroleum Authority of South Africa and must pay a 5% royalty based on wellhead price to the South African Revenue Service. An additional royalty of one percent of wellhead price is owed to the GFI Mining South Africa (GFIMSA) or Goldfields on all new wells located on their existing licenses.

Tetra4 plans to sell 30% of its LNG production into the local wholesale LNG market and 70% into the local transport market.

Tetra4 has provided to MHA a signed Gas Sales Agreement (GSA) with Unitrans Passenger Limited (Megabus) for the purchase of natural gas. The gas will be sold in liquefied state by the liter, and the purchase price is indexed to a local pricing point for 0.005% sulphur diesel at the Megabus purchase price minus a 30% discount.

Renergen has disclosed to its shareholders and MHA that several original engine manufacturers (OEMs) have agreed to begin manufacturing LNG capable heavy trucks for the South African market, although these agreements are not with Renergen nor Tetra4 directly. This has the potential to accelerate the market for liquid fuel gas in South Africa that Tetra4 wishes to supply as Tetra4 has been supplying to Megabus. It is anticipated that as these agreements are completed Tetra4 can potentially move forward its field development plan, although MHA has not factored these potential contracts into the economic analysis for reserve estimation.

Tetra4 has also provided MHA a signed Gas Sales Agreement with Linde Global Helium (Linde) for the purchase of Helium gas at the price point of approximately \$200/mcf escalating according to US CPI index.

Renergen has entered into a commitment letter with OPIC, the United States' government development finance institution, for OPIC to provide capital assistance for the development of the helium resource, indicating the United States' government's level of interest in the Virginia Gas Project as part of the global helium supply system.

The Tetra4 field development plans call for the construction of a gas gathering system, setting compression, the installation of the above-mentioned gas processing facilities and as production increases, an expansion of the entire system. MHA has reviewed Tetra4's detailed plans for abandonment and rehabilitation of the wells and all infrastructures that have been submitted to, and accepted by, the Petroleum Authority of South Africa (PASA). These plans meet, and in places exceed, governmental regulations for abandonment, rehabilitation, and monitoring.

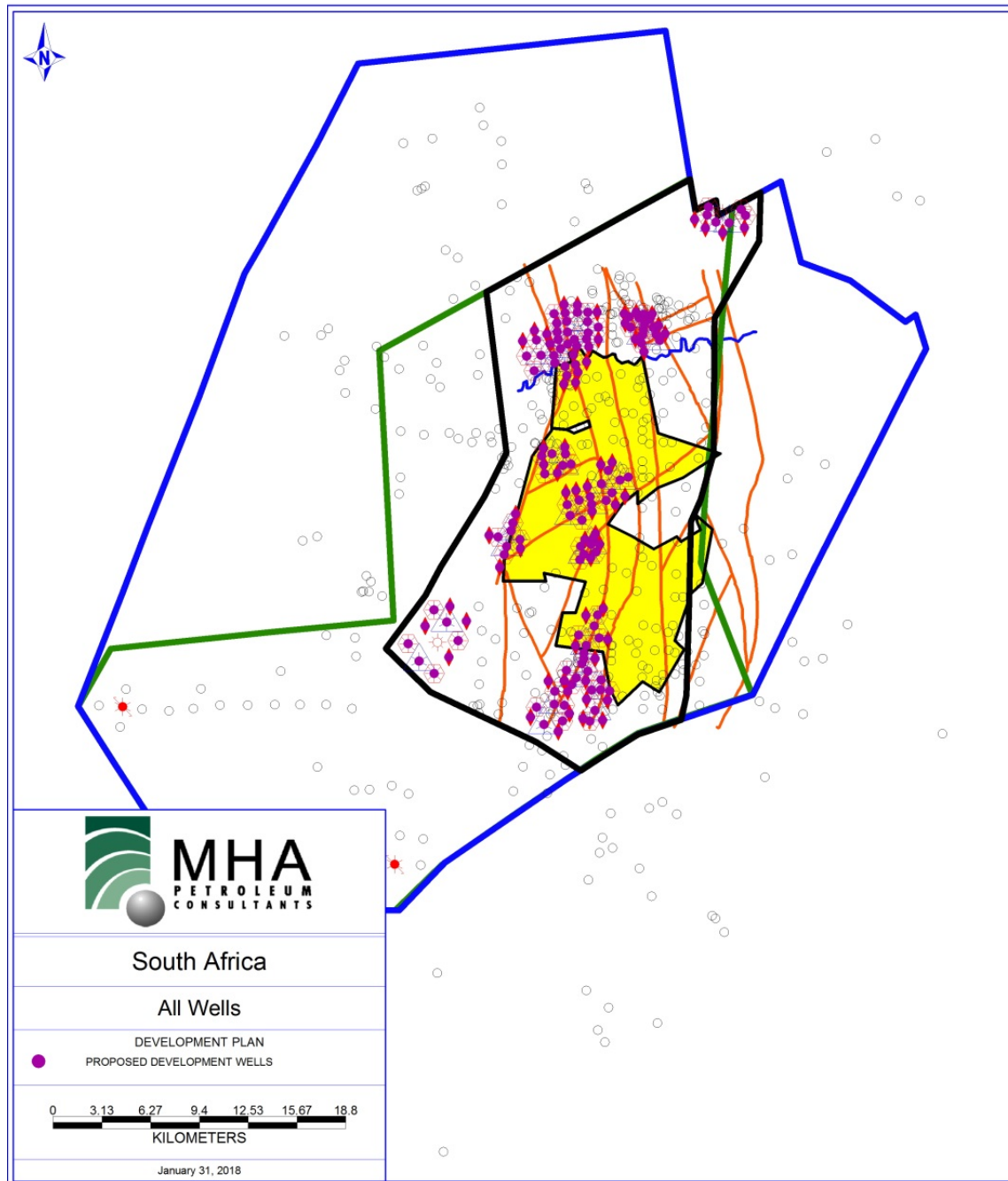


Figure 12: Map Tetra4 Virginia Gas License and Current Plus Planned Wells

ECONOMIC PARAMETERS

Proved Developed Producing Well

Sufficient production data are now available to classify the HDR-1 well as Proved Developed Producing (PDP) reserves. Decline curve analysis of this well (Figure 12) yields a shallow annual decline of 4.73%/yr.

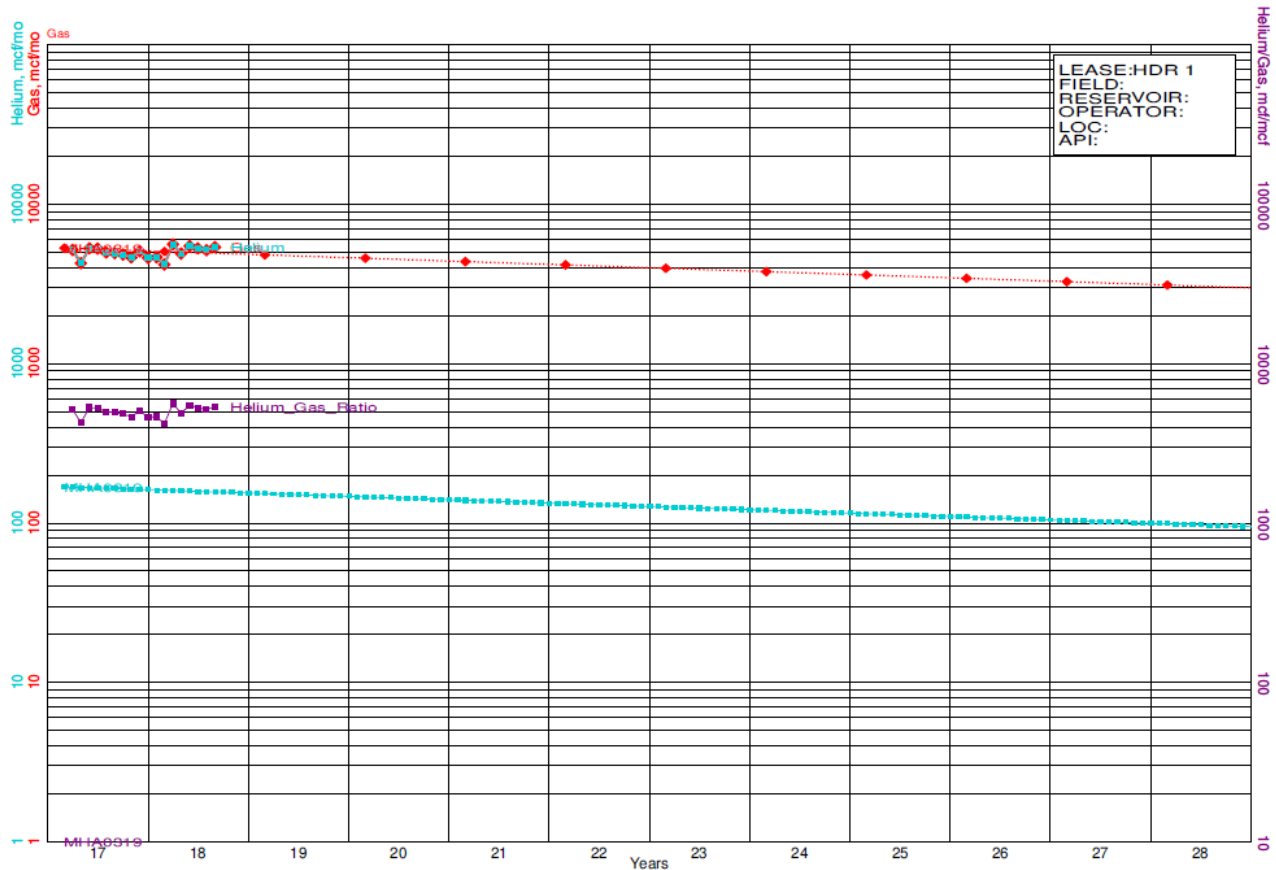


Figure 13: HDR-1 decline curve

Type well rates and recovery are on a gross gas volume. Produced gas volumes were multiplied by 0.9 to account for 10% impurities in the produced gas stream and were subject to a 5% shrink. Helium production was forecasted from methane production volumes and the assumed 3% helium in the wellhead gas stream. The estimates of reserves and future net revenue for individual properties may not reflect the same confidence level as estimates of reserves and future net revenue for all properties, due to the effects of aggregation.

Capital Costs

MHA has reviewed Tetra4's past real expenditures and future budgets. Well drilling and completion CAPEX is budgeted at 1.5 mZAR per well. The recent drilling campaign of 9 wells resulted in 5 producers and 4 dry holes. This dry hole risk of roughly 40% was addressed by decreasing the type well gas production rate by a factor of 0.6. Connection CAPEX is held at 1.0 mZAR per well. Pipeline capital of 170 mZAR has been allocated into two payments of 68 mZAR (scheduled for May 19 and Dec 19) and one payment of 34 mZAR (scheduled for May 20). Capital for the initial methane and helium liquefaction plants is 121.48 mZAR and 52.48 mZAR, respectively. Development of the Virginia Field will require additional liquefaction plants for each 6 mmcf/d increment in gross gas production. CAPEX for these additional methane and helium liquefaction plants is 180.0 mZAR and 100.0 mZAR, respectively. Based on the three type wells discussed above, new plants will be required for every 40 1P wells drilled (6 mmcf/d/150 mcf/d per well), every 24 2P wells, and every 16 3P wells. All capital costs are escalated at 2 %/yr.

Operating expenses

Fixed lease operating expenses (LOE's) are assigned at the plant level rather than individual wells, at 1,500 mZAR per month. The variable OPEX is 13.9 ZAR/mcf, reflecting truck transport of the methane and helium. All operating expenses are escalated at 2%/yr until the price doubled then the LOE is held constant for the life of the project.

Prices

The methane price is a blended price reflecting the 30%/70% split between the wholesale and transport sectors discussed above. The wholesale LNG price of 217 ZAR/mcf is escalated at the South African CPI of 6%/year and the transport diesel equivalent LNG price of 245 ZAR/mcf is escalated based on historical diesel prices, 10%/yr. The resulting blended price is 236 ZAR/mcf and escalated at 9%/yr. The blended price was held constant once the initial price had doubled.

The initial helium price of 2863 ZAR/mcf (200 USD/mcf) is held constant for the first two months then is escalated at the average US CPI of 2.4%/yr. forecast. Monthly methane and helium prices are plotted in Figure 14 and listed in Appendix 1. The complete pricing calculation is presented in Appendix 4.

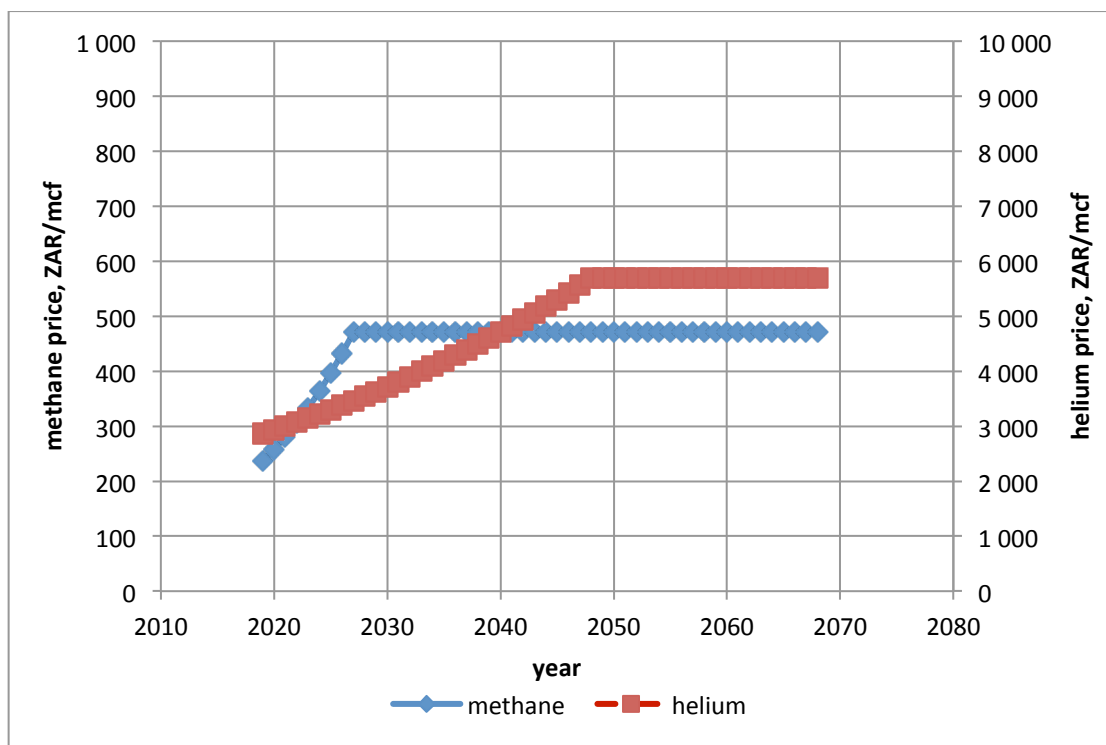


Figure 14: Methane and Helium Monthly Prices

MHA assumed a methane BTU factor of 1.01 Gj/mcf (0.960 mmbtu/mcf). Shrink, which accounts for gas used by the plant, measurement imbalances, and surface losses, as well as helium extraction, is assumed to be a constant 5 % throughout the life of the field. All wells are burdened with a 5% overriding royalty interest (ORRI) on the wellhead gas price plus those wells in the Goldfields area are subject to an additional 1% ORRI. The well counts associated with field development of Reserves and Contingent Resources are given in Table 10 below.

Table 10: Wellcount by Reserve and Contingent Resource Category

Reserves	PDNP	Total Proved (1P)	Probable	Proved + Probable (2P)	Possible	Proved + Probable + Possible (3P)
Number of wells	19	58	76	134	76	210
Contingent Resources		Low Case		Best Case		High Case
Number of Methane wells		346		346		346
Number of He wells		346		346		346

RESERVE ECONOMICS

Based on the economic parameters discussed above, reserves and economics were calculated for the Virginia Gas Field. Gross and net methane and helium reserves, based on an industry standard 10% discount rate, are collected in Table 11.

Table 11: Gross and Net Methane and Helium Reserves

1P Reserve Cat	Gross CH4 (MMCF)	Gross Helium (MMCF)	Net CH4 (MMCF)	Net Helium (MMCF)
TOTAL PDNP	14,765.3	346.0	13,288.8	327.7
TOTAL PUD	29,526.1	691.9	26,573.5	655.3
TOTAL 1P PRV	45,285.1	1,069.5	40,759.0	1,013.1
2P Reserve Cat	Gross CH4 (MMCF)	Gross Helium (MMCF)	Net CH4 (MMCF)	Net Helium (MMCF)
TOTAL PDNP	14,765.3	346.0	13,288.8	327.7
TOTAL PUD	29,526.1	691.9	26,573.5	655.3
TOTAL PROVED	45,285.1	1,069.5	40,759.0	1,013.1
TOTAL PROBABLE	109,146.6	2,528.4	98,231.8	2,394.7
TOTAL 2P PRV+PRB	154,431.7	3,597.9	138,990.9	3,407.8
3P Reserve Cat	Gross CH4 (MMCF)	Gross Helium (MMCF)	Net CH4 (MMCF)	Net Helium (MMCF)
TOTAL PDNP	14,765.3	346.0	13,288.8	327.7
TOTAL PUD	29,526.1	691.9	26,573.5	655.3
TOTAL PROVED	45,285.1	1,069.5	40,759.0	1,013.1
TOTAL PROBABLE	109,146.6	2,528.4	98,231.8	2,394.7
TOTAL POSSIBLE	161,318.0	3,640.7	145,186.0	3,448.2
TOTAL 3P PRV+PRB+POS	315,749.7	7,238.6	284,176.8	6,856.1

At the request of Tetra4, net present values associated with the reserves volumes were calculated for various discount rates. MHA has calculated the economics according to the assumptions detailed above and have presented the economics as both Undiscounted (NPV=0, breakeven), and at various discount factors to assist the investor as different investors prefer to use different discount factors in evaluating assets. MHA makes no recommendation as to preference of which discount factor to use. The results are shown in Table 12.

**Table 12: Virginia Gas Field – Methane and Helium Reserves
Net Present Values for Selected Discount Factors, mZAR**

Discount Factor	PDNP	Total Proved (1P)	Probable	Proved + Probable (2P)	Possible	Proved + Probable + Possible (3P)
Undiscounted	6,462	17,069	50,367	64,477	75,065	135,196
5%	3,471	7,995	20,988	27,754	30,430	56,387
8%	2,580	5,599	14,369	19,059	20,481	38,224
10%	2,172	4,541	11,620	15,375	16,376	30,624
15%	1,502	2,878	7,516	9,788	10,301	19,242
20%	1,113	1,194	5,318	6,758	7,092	13,162
30%	695	978	3,104	3,699	3,929	7,127

CONCLUSIONS

Based on analysis of technical and economic data provided by Tetra4, MHA has estimated methane and helium Reserves and Resources for the Virginia Gas Field according to SPE PRMS guidance and ASX Listing Rules. Estimated Reserves and Contingent Resource gross and net methane and helium volumes are presented in Table 13. Net present values of the Reserves at requested discount rates are given in Table 12 above.

Table 13: Virginia Gas Field - Gross and Net Methane and Helium Reserves and Contingent Resources

Reserve Cat	Gross CH4 (MMCF)	Gross Helium (MMCF)	Net CH4 (MMCF)	Net Helium (MMCF)
RESERVES				
TOTAL 1P	45,285.0	1,069.5	40,759.0	1,013.0
TOTAL 2P	154,431.7	3,597.9	138,990.8	3,407.8
TOTAL 3P	315,749.7	7,238.6	284,176.8	6,856.0
CONTINGENT RESOURCES				
TOTAL C1	262,978.3	8,362.7	237,337.9	7,944.5
TOTAL C2	483,058.3	15,168.0	435,960.1	14,409.6
TOTAL C3	718,612.4	21,989.5	648,547.7	20,890.0

QUALIFICATIONS

Jeffrey B. Aldrich is a Partner in MHA Petroleum Consultants, Inc. (MHA) and is a Certified Petroleum Geologist, #6254, by the American Association of Petroleum Geologists (AAPG) and a Licensed Professional Geoscientist, #394; He is an active member of the AAPG and the Society of Petroleum Engineers (SPE). He has over thirty years as a practicing petroleum geologist/geophysicist and over twenty years of experience in oil and gas reserve evaluations. He holds a Bachelor's of Science degree in Geology from Vanderbilt University and a Master's of Science degree in Geology from Texas A&M University. He is an instructor in the PetroSkills Alliance and is the Course Director for "Prospect and Play Analysis", "Evaluating and Developing Shale Reservoirs", "Unconventional Resource and Reserve Estimation", and "Coalbed Methane Reservoirs".

John Seidle is a Partner and Senior Reservoir Engineer with MHA Petroleum Consultants LLC in Denver, Colorado. He has more than thirty-five years of experience in unconventional gas and oil reservoir engineering in domestic and international plays. His current duties include unconventional reservoir engineering, reserve studies and economic evaluations, unconventional well performance analysis, and serving as an expert witness for litigation and regulatory hearings. Dr. Seidle is an instructor for industry classes, primarily unconventional reservoirs. Privileged to work with others on over 29 technical papers, he is the author of "Fundamentals of Coalbed Methane Reservoir Engineering". John is editor and chapter author of SPEE Monograph 4, "Estimating Ultimate Recovery of Developed Wells in Low-Permeability Reservoirs". He received a PhD in Mechanical Engineering from the University of Colorado, is a member of SPE, AAPG, and SPEE, and is a Registered Professional Engineer in Colorado, Oklahoma, and Wyoming. Unconventional reservoir experience includes USA, Canada, Australia, China, India, South Africa, New Zealand, Colombia, Mexico, France, UK, Turkey, Poland, Mongolia, Ukraine.

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APPENDIX 1: METHANE AND HELIUM PRICES

As discussed above, the methane price was a blended price reflecting the 30%/70% split between the wholesale and transport sectors discussed above. The wholesale LNG price of 217 ZAR/mcf was escalated at the South African CPI of 6%/year, and the transport LNG price of 171 ZAR/mcf was escalated based on historical diesel prices, 10%/yr. The resulting blended price was 236 ZAR/mcf and escalated at 9%/yr. The blended price was held constant once the initial price had doubled.

The initial helium price of 2863 ZAR/mcf (200 USD/mcf) was held constant for the first two months then was escalated at the average US CPI of 2.4%/yr. forecast.

Annual methane and helium prices are listed in Table A.1 below.

year	methane, ZAR/mcf	helium ZAR/mcf	year	methane, ZAR/mcf	helium ZAR/mcf
2019	236	2,863	2044	471	5,180
2020	257	2,932	2045	471	5,304
2021	280	3,002	2046	471	5,432
2022	306	3,074	2047	471	5,562
2023	333	3,148	2048	471	5,695
2024	363	3,224	2049	471	5,695
2025	396	3,301	2050	471	5,695
2026	432	3,380	2051	471	5,695
2027	471	3,461	2052	471	5,695
2028	471	3,544	2053	471	5,695
2029	471	3,629	2054	471	5,695
2030	471	3,716	2055	471	5,695
2031	471	3,806	2056	471	5,695
2032	471	3,897	2057	471	5,695
2033	471	3,991	2058	471	5,695
2034	471	4,086	2059	471	5,695
2035	471	4,184	2060	471	5,695
2036	471	4,285	2061	471	5,695
2037	471	4,388	2062	471	5,695
2038	471	4,493	2063	471	5,695
2039	471	4,601	2064	471	5,695
2040	471	4,711	2065	471	5,695
2041	471	4,824	2066	471	5,695
2042	471	4,940	2067	471	5,695
2043	471	5,059	2068	471	5,695

APPENDIX 2: PETROLEUM RESOURCES MANAGEMENT SYSTEM

Preamble

Petroleum resources are the quantities of hydrocarbons naturally occurring on or within the Earth's crust. Resources assessments estimate quantities in known and yet-to-be-discovered accumulations. Resources evaluations are focused on those quantities that can potentially be recovered and marketed by commercial projects. A petroleum resources management system provides a consistent approach to estimating petroleum quantities, evaluating projects, and presenting results within a comprehensive classification framework.

International efforts to standardize the definitions of petroleum resources and how resources volumes are estimated began in the 1930s. Early guidance focused on Proved Reserves. Building on work initiated by the Society of Petroleum Evaluation Engineers (SPEE), the Society of Petroleum Engineers (SPE) published definitions for all reserves categories in 1987. In the same year, the World Petroleum Council (WPC), then known as the World Petroleum Congress, independently published reserves definitions that were strikingly similar. In 1997, the two organizations jointly released a single set of definitions for reserves that could be used worldwide. In 2000, the American Association of Petroleum Geologists (AAPG), SPE, and WPC jointly developed a classification system for all petroleum resources. This was followed by supplemental application evaluation guidelines (2001), standards for estimating and auditing reserves information (2001, revised 2007), and a glossary of terms used in resources definitions (2005). In 2007, the SPE/WPC/AAPG/SPEE Petroleum Resources Management System (PRMS) was issued and subsequently supported by the Society of Exploration Geophysicists (SEG). The document is referred to by the abbreviated term SPE-PRMS, with the caveat that the full title, including clear recognition of the co-sponsoring organizations, has been initially stated. In 2011, the SPE/WPC/AAPG/SPEE/SEG published Guidelines for the Application of the PRMS (referred to as Application Guidelines).

The PRMS definitions and the related classification system are now in common use internationally to support petroleum project and portfolio management requirements. PRMS is referenced for national reporting and regulatory disclosures in many jurisdictions and provides the commodity-specific specifications for petroleum under the United Nations Framework Classification for Resources (UNFC) to support petroleum project and portfolio management requirements. The definitions provide a measure of comparability, reduce the subjective nature of resources estimation, and are intended to improve clarity in global communications regarding petroleum resources.

Technologies employed in petroleum exploration, development, production, and processing continue to evolve and improve. The SPE Oil and Gas Reserves Committee works closely with related organizations to maintain the definitions and guidelines to keep current with evolving technology and industry requirements.

This document consolidates, builds on, and replaces prior guidance. Appendix A is a glossary of terms used in the PRMS and replaces those published in 2007. It is expected that this document will be supplemented with industry education programs, best practice reporting standards, and future updates to the 2011 Application Guidelines.

This updated PRMS provides fundamental principles for the evaluation and classification of petroleum reserves and resources. If there is any conflict with prior SPE and PRMS guidance, approved training, or the Application Guidelines, the current PRMS shall prevail. It is understood that these definitions and guidelines allow flexibility for entities, governments, and regulatory agencies to tailor application for their particular needs; however, any modifications to the guidance contained herein must be clearly identified. The terms "shall" or "must" indicate that a provision herein is mandatory for PRMS compliance, while "should" indicates a recommended practice and "may" indicates that a course of action is permissible. The definitions and guidelines contained in this document must not be construed as modifying the interpretation or application of any existing regulatory reporting requirements.

1.0 Basic Principles and Definitions

1.0.0.1 A classification system of petroleum resources is a fundamental element that provides a common language for communicating both the confidence of a project's resources maturation status and the range of potential outcomes to the various entities. The PRMS provides transparency by requiring the assessment of various criteria that allow for the classification and categorization of a project's resources. The evaluation elements consider the risk of geologic discovery and the technical uncertainties together with a determination of the chance of achieving the commercial maturation status of a petroleum project.

1.0.0.2 The technical estimation of petroleum resources quantities involves the assessment of quantities and values that have an inherent degree of uncertainty. Quantities of petroleum and associated products can be reported in terms of volumes (e.g., barrels or cubic meters), mass (e.g., metric tonnes) or energy (e.g., Btu or Joule). These quantities are associated with exploration, appraisal, and development projects at various stages of design and implementation. The commercial aspects considered will relate the project's maturity status (e.g., technical, economical, regulatory, and legal) to the chance of project implementation.

1.0.0.3 The use of a consistent classification system enhances comparisons between projects, groups of projects, and total company portfolios. The application of PRMS must consider both technical and commercial factors that impact the project's feasibility, its productive life, and its related cash flows.

1.1 Petroleum Resources Classification Framework

1.1.0.1 Petroleum is defined as a naturally occurring mixture consisting of hydrocarbons in the gaseous, liquid, or solid state. Petroleum may also contain non-hydrocarbons, common examples of which are carbon dioxide, nitrogen, hydrogen sulfide, and sulfur. In rare cases, non-hydrocarbon content can be greater than 50%.

1.1.0.2 The term resources as used herein is intended to encompass all quantities of petroleum naturally occurring within the Earth's crust, both discovered and undiscovered (whether recoverable or unrecoverable), plus those quantities already produced. Further, it includes all types of petroleum whether currently considered as conventional or unconventional resources.

1.1.0.3 Figure 1.1 graphically represents the PRMS resources classification system. The system classifies resources into discovered and undiscovered and defines the recoverable resources classes: Production, Reserves, Contingent Resources, and Prospective Resources, as well as Unrecoverable Petroleum.

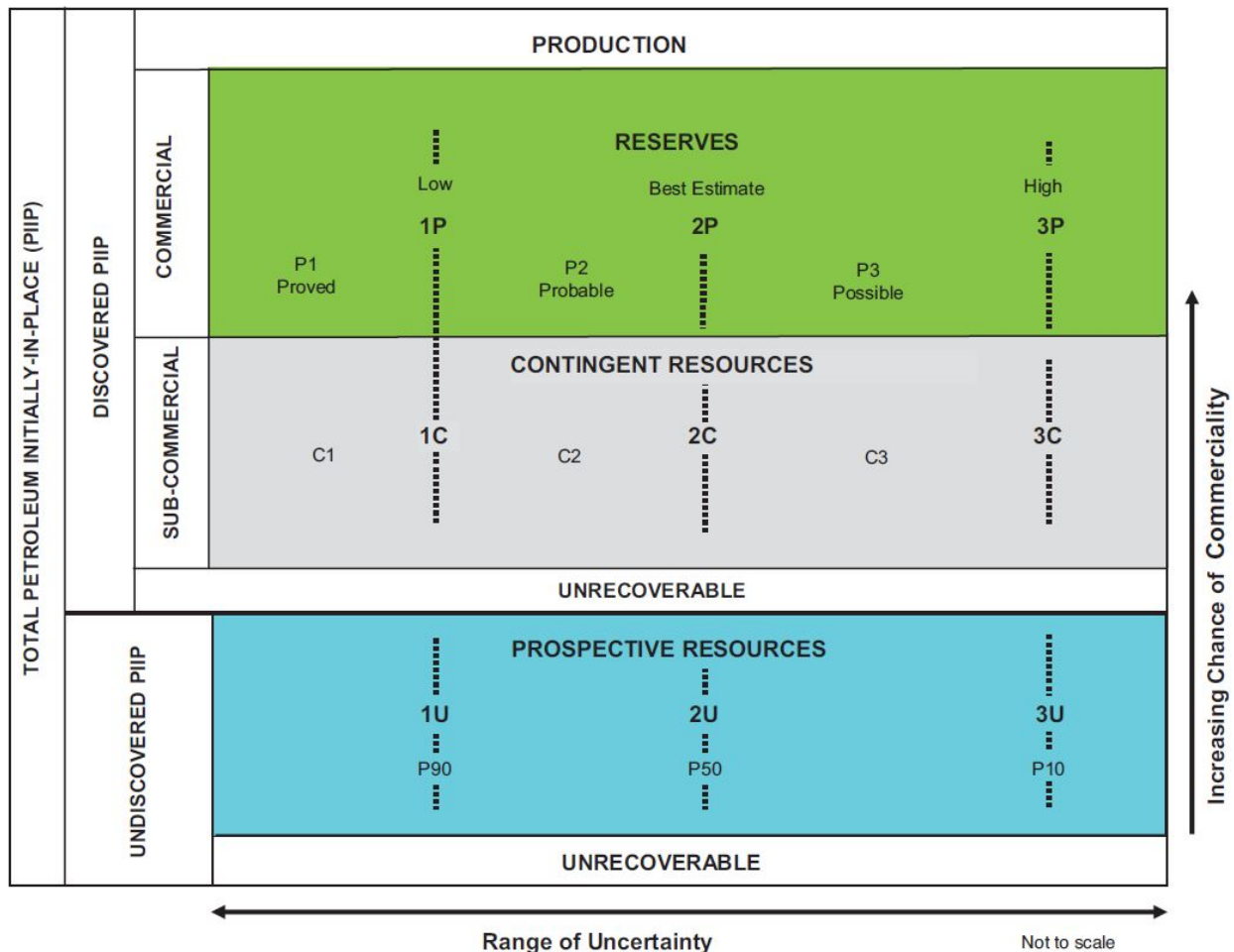


Figure 1.1—Resources classification framework

1.1.0.4 The horizontal axis reflects the range of uncertainty of estimated quantities potentially recoverable from an accumulation by a project, while the vertical axis represents the chance of commerciality, P_c , which is the chance that a project will be committed for development and reach commercial producing status.

1.1.1.5 The following definitions apply to the major subdivisions within the resources classification:

A. Total Petroleum Initially-In-Place (PIIP) is all quantities of petroleum that are estimated to exist originally in naturally occurring accumulations, discovered and undiscovered, before production.

B. Discovered PIIP is the quantity of petroleum that is estimated, as of a given date, to be contained in known accumulations before production.

C. Production is the cumulative quantities of petroleum that have been recovered at a given date. While all recoverable resources are estimated, and production is measured in terms of the sales product specifications, raw production (sales plus non-sales) quantities are also measured and required to support engineering analyses based on reservoir voidage (see Section 3.2, Production Measurement).

1.1.0.6 Multiple development projects may be applied to each known or unknown accumulation, and each project will be forecast to recover an estimated portion of the initially-in-place quantities. The projects shall be subdivided into commercial, sub-commercial, and undiscovered, with the estimated recoverable quantities being classified as Reserves, Contingent Resources, or Prospective Resources respectively, as defined below.

A. 1. Reserves are those quantities of petroleum anticipated to be commercially recoverable by application of development projects to known accumulations from a given date forward under defined conditions. Reserves must satisfy four criteria: discovered, recoverable, commercial, and remaining (as of the evaluation's effective date) based on the development project(s) applied.

2. Reserves are recommended as sales quantities as metered at the reference point. Where the entity also recognizes quantities consumed in operations (CiO) (see Section 3.2.2), as Reserves these quantities must be recorded separately. Non-hydrocarbon quantities are recognized as Reserves only when sold together with hydrocarbons or CiO associated with petroleum production. If the non-hydrocarbon is separated before sales, it is excluded from Reserves.

3. Reserves are further categorized in accordance with the range of uncertainty and should be subclassified based on project maturity and/or characterized by development and production status.

B. Contingent Resources are those quantities of petroleum estimated, as of a given date, to be potentially recoverable from known accumulations, by the application of development project(s) not currently considered to be commercial owing to one or more contingencies. Contingent Resources have an associated chance of development. Contingent Resources may include, for example, projects for which there are currently no viable markets, or where commercial recovery is dependent on technology under development, or where evaluation of the accumulation is insufficient to clearly assess commerciality. Contingent Resources are further categorized in accordance with the range of uncertainty associated with the estimates and should be subclassified based on project maturity and/or economic status.

C. Undiscovered PIIP is that quantity of petroleum estimated, as of a given date, to be contained within accumulations yet to be discovered.

D. Prospective Resources are those quantities of petroleum estimated, as of a given date, to be potentially recoverable from undiscovered accumulations by application of future development projects. Prospective Resources have both an associated chance of geologic discovery and a chance of development. Prospective Resources are further categorized in accordance with the range of uncertainty associated with recoverable estimates, assuming discovery and development, and may be sub-classified based on project maturity.

E. Unrecoverable Resources are that portion of either discovered or undiscovered PIIP evaluated, as of a given date, to be unrecoverable by the currently defined project(s). A portion of these quantities may become recoverable in the future as commercial circumstances change, technology is developed, or additional data are acquired. The remaining portion may never be recovered because of physical/chemical constraints represented by subsurface interaction of fluids and reservoir rocks.

1.1.0.7 The sum of Reserves, Contingent Resources, and Prospective Resources may be referred to as remaining recoverable resources." Importantly, these quantities should not be aggregated without due consideration of the technical and commercial risk involved with their classification. When such terms are used, each classification component of the summation must be provided.

1.1.0.8 Other terms used in resource assessments include the following:

A. Estimated Ultimate Recovery (EUR) is not a resources category or class, but a term that can be applied to an accumulation or group of accumulations (discovered or undiscovered) to define those quantities of petroleum estimated, as of a given date, to be potentially recoverable plus those quantities already produced from the accumulation or group of accumulations. For clarity, EUR must reference the associated technical and commercial conditions for the resources; for example, proved EUR is Proved Reserves plus prior production.

B. Technically Recoverable Resources (TRR) are those quantities of petroleum producible using currently available technology and industry practices, regardless of commercial considerations. TRR may be used for specific Projects or for groups of Projects, or, can be an undifferentiated estimate within an area (often basin-wide) of recovery potential.

1.1.0.9 Whenever these terms are used, the conditions associated with their usage must be clearly noted and documented.

1.2 Project-Based Resources Evaluations

1.2.0.1 The resources evaluation process consists of identifying a recovery project or projects associated with one or more petroleum accumulations, estimating the quantities of PIIP, estimating that portion of those in-place quantities that can be recovered by each project, and classifying the project(s) based on maturity status or chance of commerciality.

1.2.0.2 The concept of a project-based classification system is further clarified by examining the elements contributing to an evaluation of net recoverable resources (see Figure 1.2).

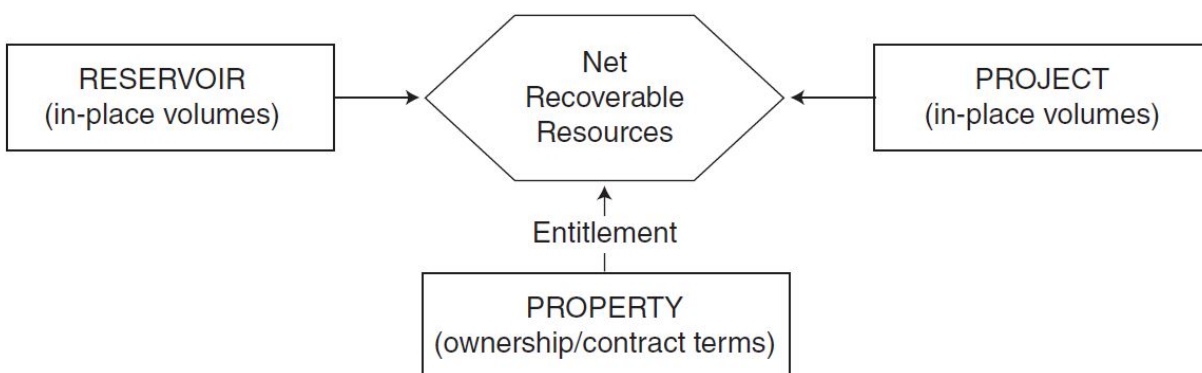


Figure 1.2—Resources evaluation

1.2.0.3 The reservoir (contains the petroleum accumulation): Key attributes include the types and quantities of PIIP and the fluid and rock properties that affect petroleum recovery.

1.2.0.4 The project: A project may constitute the development of a well, a single reservoir, or a small field; an incremental development in a producing field; or the integrated development of a field or several fields together with the associated processing facilities (e.g., compression). Within a project, a specific reservoir's development generates a unique production and cash-flow schedule at each level of certainty. The integration of these schedules taken to the project's earliest truncation caused by technical, economic, or the contractual limit defines the estimated recoverable resources and associated future net cash flow projections for each project. The ratio of EUR to total PIIP quantities defines the project's recovery efficiency. Each project should have an associated recoverable resources range (low, best, and high estimate).

1.2.0.5 The property (lease or license area): Each property may have unique associated contractual rights and obligations, including the fiscal terms. This information allows definition of each participating entity's share of produced quantities (entitlement) and share of Investments, expenses, and revenues for each recovery project and the reservoir to which it is applied. One property may encompass many reservoirs, or one reservoir may span several different properties. A property may contain both discovered and undiscovered accumulations that may be spatially unrelated to a potential single field designation.

1.2.0.6 An entity's net recoverable resources are the entitlement share of future production legally accruing under the terms of the development and production contract or license.

1.2.0.7 In the context of this relationship, the project is the primary element considered in the resources classification, and the net recoverable resources are the quantities derived from each project. A project represents a defined activity or set of activities to develop the petroleum accumulation(s) and the decisions taken to mature the resources to reserves. In general, it is recommended that an individual project has assigned to it a specific maturity level sub-class (See Section 2.1.3.5, Project Maturity Sub-Classes) at which a decision is made

whether or not to proceed (i.e., spend more money) and there should be an associated range of estimated recoverable quantities for the project (See Section 2.2.1, Range of Uncertainty). For completeness, a developed field is also considered to be a project.

1.2.0.8 An accumulation or potential accumulation of petroleum is often subject to several separate and distinct projects that are at different stages of exploration or development. Thus, an accumulation may have recoverable quantities in several resources classes simultaneously. When multiple options for development exist early in project maturity, these options should be reflected as competing project alternatives to avoid double counting until decisions further refine the project scope and timing. Once the scope is described and the timing of decisions on future activities established, the decision steps will generally align with the project's classification. To assign recoverable resources of any class, a project's development plan, with detail that supports the resource commercial classification claimed, is needed.

1.2.0.9 The estimates of recoverable quantities must be stated in terms of the production derived from the potential development program even for Prospective Resources. Given the major uncertainties involved at this early stage, the development program will not be of the detail expected in later stages of maturity. In most cases, recovery efficiency may be based largely on analogous projects. In-place quantities for which a feasible project cannot be defined using current or reasonably forecast improvements in technology are classified as Unrecoverable.

1.2.0.10 Not all technically feasible development projects will be commercial. The commercial viability of a development project within a field's development plan is dependent on a forecast of the conditions that will exist during the time period encompassed by the project (see Section 3.1, Assessment of Commerciality). Conditions include technical, economic (e.g., hurdle rates, commodity prices), operating and capital costs, marketing, sales route(s), and legal, environmental, social, and governmental factors forecast to exist and impact the project during the time period being evaluated. While economic factors can be summarized as forecast costs and product prices, the underlying influences include, but are not limited to, market conditions (e.g., inflation, market factors, and contingencies), exchange rates, transportation and processing infrastructure, fiscal terms, and taxes.

1.2.0.11 The resources being estimated are those quantities producible from a project as measured according to delivery specifications at the point of sale or custody transfer (see Section 3.2.1, Reference Point) and may permit forecasts of CiO quantities (see Section 3.2.2., Consumed in Operations). The cumulative production forecast from the effective date forward to cessation of production is the remaining recoverable resources quantity (see Section 3.1.1, Net Cash-Flow Evaluation).

1.2.0.12 The supporting data, analytical processes, and assumptions describing the technical and commercial basis used in an evaluation must be documented in sufficient detail to allow, as needed, a qualified reserves evaluator or qualified reserves auditor to clearly understand each project's basis for the estimation, categorization, and classification of recoverable resources quantities and, if appropriate, associated commercial assessment.

2.0 Classification and Categorization Guidelines

2.0.0.1 To consistently characterize petroleum projects, evaluations of all resources should be conducted in the context of the full classification system shown in Figure 1.1. These guidelines reference this classification system and support an evaluation in which projects are "classified" based on their chance of commerciality, Pc (the vertical axis labeled Chance of Commerciality), and estimates of recoverable and marketable quantities associated with each project are "categorized" to reflect uncertainty (the horizontal axis). The actual workflow of classification versus categorization varies with individual projects and is often an iterative analysis leading to a final report. Report here refers to the presentation of evaluation results within the entity conducting the assessment and should not be construed as replacing requirements for public disclosures under guidelines established by regulatory and/or other government agencies.

2.1 Resources Classification

2.1.0.1 The PRMS classification establishes criteria for the classification of the total PIIP. A determination of a discovery differentiates between discovered and undiscovered PIIP. The application of a project further differentiates the recoverable from unrecoverable resources. The project is then evaluated to determine its maturity status to allow the classification distinction between commercial and sub-commercial projects. PRMS requires the project's recoverable resources quantities to be classified as either Reserves, Contingent Resources, or Prospective Resources.

2.1.1 Determination of Discovery Status

2.1.1.1 A discovered petroleum accumulation is determined to exist when one or more exploratory wells have established through testing, sampling, and/or logging the existence of a significant quantity of potentially recoverable hydrocarbons and thus have established a known accumulation. In the absence of a flow test or sampling, the discovery determination requires confidence in the presence of hydrocarbons and evidence of producibility, which may be supported by suitable producing analogs (see Section 4.1.1, Analogs). In this context, "significant" implies that there is evidence of a sufficient quantity of petroleum to justify estimating the in-place quantity demonstrated by the well(s) and for evaluating the potential for commercial recovery.

2.1.1.2 Where a discovery has identified recoverable hydrocarbons, but is not considered viable to apply a project with established technology or with technology under development, such quantities may be classified as Discovered Unrecoverable with no Contingent Resources. In future evaluations, as appropriate for petroleum resources management purposes, a portion of these unrecoverable quantities may become recoverable resources as either commercial circumstances change or technological developments occur.

2.1.2 Determination of Commerciality

2.1.2.1 Discovered recoverable quantities (Contingent Resources) may be considered commercially mature, and thus attain Reserves classification, if the entity claiming commerciality has demonstrated a firm intention to proceed with development. This means the entity has satisfied the internal decision criteria (typically rate of return at or above the weighted average cost-of-capital or the hurdle rate). Commerciality is achieved with the entity's commitment to the project and all of the following criteria:

- A.** Evidence of a technically mature, feasible development plan.
- B.** Evidence of financial appropriations either being in place or having a high likelihood of being secured to implement the project.
- C.** Evidence to support a reasonable time-frame for development.
- D.** A reasonable assessment that the development projects will have positive economics and meet defined investment and operating criteria. This assessment is performed on the estimated entitlement forecast quantities and associated cash flow on which the investment decision is made (see Section 3.1.1, Net Cash-Flow Evaluation).
- E.** A reasonable expectation that there will be a market for forecast sales quantities of the production required to justify development. There should also be similar confidence that all produced streams (e.g., oil, gas, water, CO₂) can be sold, stored, re-injected, or otherwise appropriately disposed.
- F.** Evidence that the necessary production and transportation facilities are available or can be made available.
- G.** Evidence that legal, contractual, environmental, regulatory, and government approvals are in place or will be forthcoming, together with resolving any social and economic concerns.

2.1.2.2 The commerciality test for Reserves determination is applied to the best estimate (P50) forecast quantities, which upon qualifying all commercial and technical maturity criteria and constraints become the 2P Reserves. Stricter cases [e.g., low estimate (P90)] may be used for decision purposes or to investigate the range of commerciality (see Section 3.1.2, Economic Criteria). Typically, the low- and high-case project scenarios may be evaluated for sensitivities when considering project risk and upside opportunity.

2.1.2.3 To be included in the Reserves class, a project must be sufficiently defined to establish both its technical and commercial viability as noted in Section 2.1.2.1. There must be a reasonable expectation that all required internal and external approvals will be forthcoming and evidence of firm intention to proceed with development within a reasonable time-frame. A reasonable time-frame for the initiation of development depends on the specific circumstances and varies according to the scope of the project. While five years is recommended as a benchmark, a longer time-frame could be applied where justifiable; for example, development of economic projects that take longer than five years to be developed or are deferred to meet

contractual or strategic objectives. In all cases, the justification for classification as Reserves should be clearly documented.

2.1.2.4 While PRMS guidelines require financial appropriations evidence, they do not require that project financing be confirmed before classifying projects as Reserves. However, this may be another external reporting requirement. In many cases, financing is conditional upon the same criteria as above. In general, if there is not a reasonable expectation that financing or other forms of commitment (e.g., farm-outs) can be arranged so that the development will be initiated within a reasonable time-frame, then the project should be classified as Contingent Resources. If financing is reasonably expected to be in place at the time of the final investment decision (FID), the project's resources may be classified as Reserves.

2.1.3 Project Status and Chance of Commerciality

2.1.3.1 Evaluators have the option to establish a more detailed resources classification reporting system that can also provide the basis for portfolio management by subdividing the chance of commerciality axis according to project maturity. Such sub-classes may be characterized qualitatively by the project maturity level descriptions and associated quantitative chance of reaching commercial status and being placed on production.

2.1.3.2 As a project moves to a higher level of commercial maturity in the classification (see Figure 1.1 vertical axis), there will be an increasing chance that the accumulation will be commercially developed and the project quantities move to Reserves. For Contingent and Prospective Resources, this is further expressed as a chance of commerciality, P_c , which incorporates the following underlying chance component(s):

A. The chance that the potential accumulation will result in the discovery of a significant quantity of petroleum, which is called the "chance of geologic discovery," P_g .

B. Once discovered, the chance that the known accumulation will be commercially developed is called the "chance of development," P_d .

2.1.3.3 There must be a high degree of certainty in the chance of commerciality, P_c , for Reserves to be assigned; for Contingent Resources, $P_c = P_d$; and for Prospective Resources, P_c is the product of P_g and P_d .

2.1.3.4 Contingent and Prospective Resources can have different project scopes (e.g., well count, development spacing, and facility size) as development uncertainties and project definition mature.

2.1.3.5 Project Maturity Sub-Classes

2.1.3.5.1 As Figure 2.1 illustrates, development projects and associated recoverable quantities may be subclassified according to project maturity levels and the associated actions (i.e., business decisions) required to move a project toward commercial production.

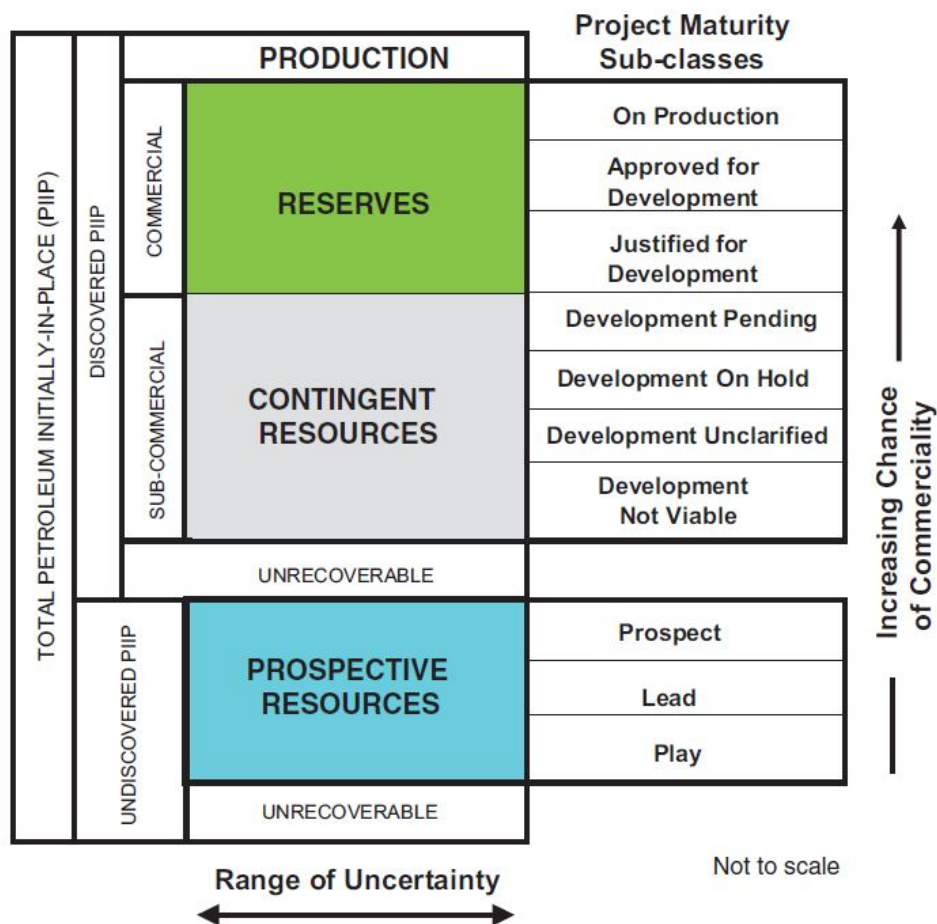


Figure 2.1—Sub-classes based on project maturity

2.1.3.5.2 Maturity terminology and definitions for each project maturity class and sub-class are provided in Table I. This approach supports the management of portfolios of opportunities at various stages of exploration, appraisal, and development. Reserve sub-classes must achieve commerciality while Contingent and Prospective Resources sub-classes may be supplemented by associated quantitative estimates of chance of commerciality to mature.

2.1.3.5.3 Resources sub-class maturation is based on those actions that progress a project through final approvals to implementation and initiation of production and product sales. The boundaries between different levels of project maturity are frequently referred to as project "decision gates."

2.1.3.5.4 Projects that are classified as Reserves must meet the criteria as listed in Section 2.1.2, Determination of Commerciality. Projects sub-classified as Justified for Development are agreed upon by the managing entity and partners as commercially viable and have support to advance the project, which includes a firm intent to proceed with development. All participating entities have agreed to the project and there are no known contingencies to the project from any official entity that will have to formally approve the project.

2.1.3.5.5 Justified for Development Reserves are reclassified to Approved for Development after a FID has been made. Projects should not remain in the Justified for Development subclass for extended time periods without positive indications that all required approvals are expected to be obtained without undue delay. If there is no longer the reasonable expectation of project execution (i.e., historical track record of execution, project progress), the project shall be reclassified as Contingent Resources.

2.1.3.5.6 Projects classified as Contingent Resources have their sub-classes aligned with the entity's plan to manage its portfolio of projects. Thus, projects on known accumulations that are actively being studied, undergoing feasibility review, and have planned near-term operations (e.g., drilling) are placed in Contingent Resources Development Pending, while those that do not meet this test are placed into either Contingent Resources On Hold, Unclassified, or Not Viable.

2.1.3.5.7 Where commercial factors change and there is a significant risk that a project with Reserves will no longer proceed, the project shall be reclassified as Contingent Resources.

2.1.3.5.8 For Contingent Resources, evaluators should focus on gathering data and performing analyses to clarify and then mitigate those key conditions or contingencies that prevent commercial development. Note that the Contingent Resources sub-classes described above and shown in Figure 2.1 are recommended; however, entities are at liberty to introduce additional sub-classes that align with project management goals.

2.1.3.5.9 For Prospective Resources, potential accumulations may mature from Play, to Lead and then to Prospect based on the ability to identify potentially commercially viable exploration projects. The Prospective Resources are evaluated according to chance of geologic discovery, *Pg*, and chance of development, *Pd*, which together determine the chance of commerciality, *Pc*. Commercially recoverable quantities under appropriate development projects are then estimated. The decision at each exploration phase is whether to undertake further data acquisition and/or studies designed to move the Play through to a drillable Prospect with a project description range commensurate with the Prospective Resources subclass.

2.1.3.6 Reserves Status

2.1.3.6.1 Once projects satisfy commercial maturity (criteria given in Table 1), the associated quantities are classified as Reserves. These quantities may be allocated to the following subdivisions based on the funding and operational status of wells and associated facilities within the reservoir development plan (Table 2 provides detailed definitions and guidelines):

A. Developed Reserves are quantities expected to be recovered from existing wells and facilities.

1. Developed Producing Reserves are expected to be recovered from completion intervals that are open and producing at the time of the estimate.

2. Developed Non-Producing Reserves include shut-in and behind-pipe reserves with minor costs to access.

B. Undeveloped Reserves are quantities expected to be recovered through future significant investments.

2.1.3.6.2 The distinction between the "minor costs to access" Developed Non-Producing Reserves and the "significant investment" needed to develop Undeveloped Reserves requires the judgment of the evaluator taking into account the cost environment. A significant investment would be a relatively large expenditure when compared to the cost of drilling and completing a new well. A minor cost would be a lower expenditure when compared to the cost of drilling and completing a new well.

2.1.3.6.3 Once a project passes the commercial assessment and achieves Reserves status, it is then included with all other Reserves projects of the same category in the same field for estimating combined future production and applying the economic limit test (see Section 3.1, Assessment of Commerciality).

2.1.3.6.4 Where Reserves remain Undeveloped beyond a reasonable time-frame or have remained Undeveloped owing to postponements, evaluations should be critically reviewed to document reasons for the delay in initiating development and to justify retaining these quantities within the Reserves class. While there are specific circumstances where a longer delay (see Section 2.1.2, Determination of Commerciality) is justified, a reasonable time-frame to commence the project is generally considered to be less than five years from the initial classification date.

2.1.3.6.5 Development and Production status are of significant importance for project portfolio management and financials. The Reserves status concept of Developed and Undeveloped status is based on the funding and operational status of wells and producing facilities within the development project. These status designations are applicable throughout the full range of Reserves uncertainty categories (1 P, 2P, and 3P or Proved, Probable, and Possible). Even those projects that are Developed and On Production should have remaining uncertainty in recoverable quantities.

2.1.3.7 Economic Status

2.1.3.7.1 Projects may be further characterized by economic status. All projects classified as Reserves must be commercial under defined conditions (see Section 3.1, Assessment of Commerciality Assessment). Based on assumptions regarding future conditions and the impact on ultimate economic viability, projects currently classified as Contingent Resources may be broadly divided into two groups:

A. Economically Viable Contingent Resources are those quantities associated with technically feasible projects where cash flows are positive under reasonably forecasted conditions but are not Reserves because it does not meet the commercial criteria defined in Section 2.1.2.

B. Economically Not Viable Contingent Resources are those quantities for which development projects are not expected to yield positive cash flows under reasonable forecast conditions.

2.1.3.7.2 The best estimate (or P50) production forecast is typically used for the economic evaluation for the commercial assessment of the project. The low case, when used as the primary case for a project decision, may be used to determine project economics. The economic evaluation of the project high case alone is not permitted to be used in the determination of the project's commerciality.

2.1.3.7.3 For Reserves, the best estimate production forecast reflects a specific development scenario recovery process, a certain number and type of wells, facilities, and infrastructure.

2.1.3.7.4 The project's low-case scenario is tested to ensure it is economic, which is required for Proved Reserves to exist (see Section 2.2.2, Category Definitions and Guidelines). It is recommended to evaluate the low case and the high case (which will quantify the 3P Reserves) to convey the project downside risk and upside potential. The project development scenarios may vary in the number and type of wells, facilities, and infrastructure in Contingent Resources, but to recognize Reserves, there must exist the reasonable expectation to develop the project for the best-estimate case.

2.1.3.7.5 The economic status may be identified independently of, or applied in combination with, project maturity sub-classification to more completely describe the project. Economic status is not the only qualifier that allows defining Contingent or Prospective Resources sub-classes. Within Contingent Resources, applying the project status to decision gates (and/or incorporating them in a plan to execute) more appropriately defines whether the project is placed into the sub-class of either Development Pending versus On Hold, Not Viable, or Unclarified.

2.1.3.7.6 Where evaluations are incomplete and it is premature to clearly define the associated cash flows, it is acceptable to note that the project economic status is "undetermined."

2.2 Resources Categorization

2.2.0.1 The horizontal axis in the resources classification in Figure 1.1 defines the range of uncertainty in estimates of the quantities of recoverable, or potentially recoverable, petroleum associated with a project or group of projects. These estimates include the uncertainty components as follows:

- A.** The total petroleum remaining within the accumulation (in-place resources).
- B.** The technical uncertainty in the portion of the total petroleum that can be recovered by applying a defined development project or projects (i.e., the technology applied).
- C.** Known variations in the commercial terms that may impact the quantities recovered and sold (e.g., market availability; contractual changes, such as production rate tiers or product quality specifications) are part of project's scope and are included in the horizontal axis, while the chance of satisfying the commercial terms is reflected in the classification (vertical axis).

2.2.0.2 The uncertainty in a project's recoverable quantities is reflected by the 1P, 2P, 3P, Proved (P1), Probable (P2), Possible (P3), 1C, 2C, 3C, C1, C2, and C3; or 1U, 2U, and 3U resources categories. The commercial chance of success is associated with resources classes or sub-classes and not with the resources categories reflecting the range of recoverable quantities.

2.2.0.3 There must be a single set of defined conditions applied for resource categorization. Use of different commercial assumptions for categorizing quantities is referred to as "split conditions" and are not allowed. Frequently, an entity will conduct project evaluation sensitivities to understand potential implications when making project selection decisions. Such sensitivities may be fully aligned to resource categories or may use single parameters, groups of parameters, or variances in the defined conditions.

2.2.0.4 Moreover, a single project is uniquely assigned to a sub-class along with its uncertainty range. For example, a project cannot have quantities classified in both Contingent Resources and Reserves, for instance as 1C, 2P, and 3P. This is referred to as "split classification."

2.2.1 Range of Uncertainty

2.2.1.1 Uncertainty is inherent in a project's resources estimation and is communicated in PRMS by reporting a range of category outcomes. The range of uncertainty of the recoverable and/or potentially recoverable quantities may be represented by either deterministic scenarios or by a probability distribution (see Section 4.2, Resources Assessment Methods).

2.2.1.2 When the range of uncertainty is represented by a probability distribution, a low, best, and high estimate shall be provided such that:

- A.** There should be at least a 90% probability (P90) that the quantities actually recovered will equal or exceed the low estimate.
- B.** There should be at least a 50% probability (P50) that the quantities actually recovered will equal or exceed the best estimate.
- C.** There should be at least a 10% probability (P10) that the quantities actually recovered will equal or exceed the high estimate.

2.2.1.3 In some projects, the range of uncertainty may be limited, and the three scenarios may result in resources estimates that are not significantly different. In these situations, a single value estimate may be appropriate to describe the expected result.

2.2.1.4 When using the deterministic scenario method, typically there should also be low, best, and high estimates, where such estimates are based on qualitative assessments of relative uncertainty using consistent interpretation guidelines. Under the deterministic incremental method, quantities for each confidence segment are estimated discretely (see Section 2.2.2, Category Definitions and Guidelines).

2.2.1.5 Project resources are initially estimated using the above uncertainty range forecasts that incorporate the subsurface elements together with technical constraints related to wells and facilities. The technical forecasts then have additional commercial criteria applied (e.g ., economics and license cutoffs are the most common) to estimate the entitlement quantities attributed and the resources classification status: Reserves, Contingent Resources, and Prospective Resources.

2.2.1.6 While there may be significant chance that sub-commercial and undiscovered accumulations will not achieve commercial production, it is useful to consider the range of potentially recoverable quantities independent of such likelihood when considering what resources class to assign the project quantities.

2.2.2 Category Definitions and Guidelines

2.2.2.1 Evaluators may assess recoverable quantities and categorize results by uncertainty using the deterministic incremental method, the deterministic scenario (cumulative) method, geostatistical methods, or probabilistic methods (see Section 4.2, Resources Assessment Methods). Also, combinations of these methods may be used.

2.2.2.2 Use of consistent terminology (Figures 1.1 and 2.1) promotes clarity in communication of evaluation results. For Reserves, the general cumulative terms low/best/high forecasts are used to estimate the resulting 1P/2P/3P quantities, respectively. The associated incremental quantities are termed Proved (P1), Probable (P2) and Possible (P3). Reserves are a subset of, and must be viewed within the context of, the complete resources classification system. While the categorization criteria are proposed specifically for Reserves, in most cases, the criteria can be equally applied to Contingent and Prospective Resources. Upon satisfying the commercial maturity criteria for discovery and/or development, the project quantities will then move to the appropriate resources sub-class. Table 3 provides criteria for the Reserves categories determination.

2.2.2.3 For Contingent Resources, the general cumulative terms low/best/high estimates are used to estimate the resulting 1C/2C/3C quantities, respectively. The terms C1, C2, and C3 are defined for incremental quantities of Contingent Resources.

2.2.2.4 For Prospective Resources, the general cumulative terms low/best/high estimates also apply and are used to estimate the resulting 1U/2U/3U quantities. No specific terms are defined for incremental quantities within Prospective Resources.

2.2.2.5 Quantities in different classes and sub-classes cannot be aggregated without considering the varying degrees of technical uncertainty and commercial likelihood involved with the classification(s) and without considering the degree of dependency between them (see Section 4.2.1, Aggregating Resources Classes).

2.2.2.6 Without new technical information, there should be no change in the distribution of technically recoverable resources and the categorization boundaries when conditions are satisfied to reclassify a project from Contingent Resources to Reserves.

2.2.2.7 All evaluations require application of a consistent set of forecast conditions, including assumed future costs and prices, for both classification of projects and categorization of estimated quantities recovered by each project (see Section 3.1, Assessment of Commerciality).

2.2.2.8 Tables 1, 2, and 3 present category definitions and provide guidelines designed to promote consistency in resources assessments. The following summarize the definitions for each Reserves category in terms of both the deterministic incremental method and the deterministic scenario method, and also provides the criteria if probabilistic methods are applied. For all methods (incremental, scenario, or probabilistic), low, best and high estimate technical forecasts are prepared at an effective date (unless justified otherwise), then tested to validate the commercial criteria, and truncated as applicable for determination of Reserves quantities.

A. Proved Reserves are those quantities of Petroleum that, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be commercially recoverable from known reservoirs and under defined technical and commercial conditions. If deterministic methods are used, the term "reasonable certainty" is intended to express a high degree of confidence that the quantities will be recovered. If probabilistic methods are used, there should be at least a 90% probability that the quantities actually recovered will equal or exceed the estimate.

B. Probable Reserves are those additional Reserves which analysis of geoscience and engineering data indicate are less likely to be recovered than Proved Reserves but more certain to be recovered than Possible Reserves. It is equally likely that actual remaining quantities recovered will be greater than or less than the sum of the estimated Proved plus Probable Reserves (2P). In this context, when probabilistic methods are used, there should be at least a 50% probability that the actual quantities recovered will equal or exceed the 2P estimate.

C. Possible Reserves are those additional Reserves that analysis of geoscience and engineering data suggest are less likely to be recoverable than Probable Reserves. The total quantities ultimately recovered from the project have a low probability to exceed the sum of Proved plus Probable plus Possible (JP) Reserves, which is equivalent to the high-estimate scenario. When probabilistic methods are used, there should be at least a 10% probability that the actual quantities recovered will equal or exceed the 3P estimate. Possible Reserves that are located outside of the 2P area (not upside quantities to the 2P scenario) may exist only when the commercial and technical maturity criteria have been met (that incorporate the Possible development scope). Standalone Possible Reserves must reference a commercial 2P project (e.g., a lease adjacent to the commercial project that may be owned by a separate entity), otherwise stand-alone Possible is not permitted.

2.2.2.9 One, but not the sole, criterion for qualifying discovered resources and to categorize the project's range of its low/best/high or P90/P50/P10 estimates to either 1C/2C/3C or 1P/2P/3P is the distance away from known productive area(s) defined by the geoscience confidence in the subsurface.

2.2.2.10 A conservative (low-case) estimate may be required to support financing. However, for project justification, it is generally the best-estimate Reserves or Resources quantity that passes qualification because it is considered the most realistic assessment of a project's recoverable quantities. The best estimate is generally considered to represent the sum of Proved and Probable estimates (2P) for Reserves, or 2C when Contingent Resources are cited, when aggregating a field, multiple fields, or an entity's resources.

2.2.2.11 It should be noted that under the deterministic incremental method, discrete estimates are made for each category and should not be aggregated without due consideration of associated confidence. Results from the deterministic scenario, deterministic incremental, geostatistical and probabilistic methods applied to the same project should give comparable results (see Section 4.2, Resources Assessment Methods). If material differences exist between the results of different methods, the evaluator should be prepared to explain these differences.

2.3 Incremental Projects

2.3.0.1 The initial resources assessment is based on application of a defined initial development project, even extending into Prospective Resources. Incremental projects are designed to either increase recovery efficiency, reduce costs, or accelerate production through either maintenance of or changes to wells, completions, or facilities or through infill drilling or by means of improved recovery. Such projects are classified according to the resources classification framework (Figure 1.1). with preference for applying project maturity sub-classes (Figure 2.1). Related incremental quantities are similarly categorized on the range of uncertainty of recovery. The projected recovery change can be included in Reserves if the degree of commitment is such that the project has achieved commercial maturity (See Section 2.1.2, Determination of Commerciality). The quantity of such incremental recovery must be supported by technical evidence to justify the relative confidence in the resources category assigned.

2.3.0.2 An incremental project must have a defined development plan. A development plan may include projects targeting the entire field (or even multiple, linked fields), reservoirs, or single wells. Each incremental project will have its own planned timing for execution and resource quantities attributed to the project. Development plans may also include appraisal projects that will lead to subsequent project decisions based on appraisal outcomes.

2.3.0.3 Circumstances when development will be significantly delayed and where it is considered that Reserves are still justified should be clearly documented. If there is no longer the reasonable expectation of project execution (i.e., historical track record of execution, project progress), forecast project incremental recoveries are to be reclassified as Contingent Resources (see Section 2.1 .2, Determination of Commerciality).

2.3.1 Workovers, Treatments, and Changes of Equipment

2.3.1.1 Incremental recovery associated with a future workover, treatment (including hydraulic fracturing stimulation), re-treatment, changes to existing equipment, or other mechanical

procedures where such projects have routinely been successful in analogous reservoirs may be classified as Developed Reserves, Undeveloped Reserves, or Contingent Resources, depending on the associated costs required (see Section 2.1.3.2, Reserves Status) and the status of the project's commercial maturity elements.

2.3.1.2 Facilities that are either beyond their operational life, placed out of service, or removed from service cannot be associated with Reserves recognition. When required facilities become unavailable or out of service for longer than a year, it may be necessary to reclassify the Developed Reserves to either Undeveloped Reserves or Contingent Resources. A project that includes facility replacement or restoration of operational usefulness must be identified, commensurate with the resources classification.

2.3.2 Compression

2.3.2.1 Reduction in the backpressure through compression can increase the portion of in-place gas that can be commercially produced and thus included in resources estimates. If the eventual installation of compression meets commercial maturity requirements, the incremental recovery is included in either Undeveloped Reserves or Developed Reserves, depending on the investment on meeting the Developed or Undeveloped classification criteria. However, if the cost to implement compression is not significant, relative to the cost of one new well in the field, or there is reasonable expectation that compression will be implemented by a third party in a common sales line beyond the reference point, the incremental quantities may be classified as Developed Reserves. If compression facilities were not part of the original approved development plan and such costs are significant, it should be treated as a separate project subject to normal project maturity criteria.

2.3.3 Infill Drilling

2.3.3.1 Technical and commercial analyses may support drilling additional producing wells to reduce the well spacing of the initial development plan, subject to government regulations. Infill drilling may have the combined effect of increasing recovery and accelerating production. Only the incremental recovery (i.e. recovery from infill wells less the recovery difference in earlier wells) can be considered as additional Reserves for the project; this incremental recovery may need to be reallocated.

2.3.4 Improved Recovery

2.3.4.1 Improved recovery is the additional petroleum obtained, beyond primary recovery, from naturally occurring reservoirs by supplementing the natural reservoir energy. It includes secondary recovery (e.g., waterflooding and pressure maintenance), tertiary recovery processes (thermal, miscible gas injection, chemical injection, and other types), and any other means of supplementing natural reservoir recovery processes.

2.3.4.2 Improved recovery projects must meet the same Reserves technical and commercial maturity criteria as primary recovery projects.

2.3.4.3 The judgment on commerciality is based on pilot project results within the subject reservoir or by comparison to a reservoir with analogous rock and fluid properties and where a similar established improved recovery project has been successfully applied.

2.3.4.4 Incremental recoveries through improved recovery methods that have yet to be established through routine, commercially successful applications are included as Reserves only after a favorable production response from the subject reservoir from either (a) a representative pilot or (b) an installed portion of the project, where the response provides support for the analysis on which the project is based. The improved recovery project's resources will remain classified as Contingent Resources Development Pending until the pilot has demonstrated both technical and commercial feasibility and the full project passes the Justified for Development "decision gate."

2.4 Unconventional Resources

2.4.0.1 The types of in-place petroleum resources defined as conventional and unconventional may require different evaluation approaches and/or extraction methods. However, the PRMS resources definitions, together with the classification system, apply to all types of petroleum accumulations regardless of the in-place characteristics, extraction method applied, or degree of processing required.

A. Conventional resources exist in porous and permeable rock with pressure equilibrium. The PIIP is trapped in discrete accumulations related to a local geological structure feature and/or stratigraphic condition. Each conventional accumulation is typically bounded by a down dip contact with an aquifer, as its position is controlled by hydrodynamic interactions between buoyancy of petroleum in water versus capillary force. The petroleum is recovered through wellbores and typically requires minimal processing before sale.

B. Unconventional resources exist in petroleum accumulations that are pervasive throughout a large area and are not significantly affected by hydrodynamic influences (also called "continuous-type deposit"). Usually there is not an obvious structural or stratigraphic trap. Examples include coalbed methane (CBM), basin-centered gas (low permeability), tight gas and tight oil (low permeability), gas hydrates, natural bitumen (very high viscosity oil), and oil shale (kerogen) deposits. Note that shale gas and shale oil are sub-types of tight gas and tight oil where the lithologies are predominantly shales or siltstones. These accumulations lack the porosity and permeability of conventional reservoirs required to flow without stimulation at economic rates. Typically, such accumulations require specialized extraction technology (e.g., dewatering of CBM, hydraulic fracturing stimulation for tight gas and tight oil, steam and/or solvents to mobilize natural bitumen for in-situ recovery, and in some cases, surface mining of oil sands). Moreover, the extracted petroleum may require significant processing before sale (e.g., bitumen upgraders).

2.4.0.2 For unconventional petroleum accumulations, reliance on continuous water contacts and pressure gradient analysis to interpret the extent of recoverable petroleum is not possible. Thus, there is typically a need for increased spatial sampling density to define uncertainty of in-place quantities, variations in reservoir and hydrocarbon quality, and to support design of

specialized mining or in-situ extraction programs. In addition, unconventional resources typically require different evaluation techniques than conventional resources.

2.4.0.3 Extrapolation of reservoir presence or productivity beyond a control point within a resources accumulation must not be assumed unless there is technical evidence to support it. Therefore, extrapolation beyond the immediate vicinity of a control point should be limited unless there is clear engineering and/or geoscience evidence to show otherwise.

2.4.0.4 The extent of the discovery within a pervasive accumulation is based on the evaluator's reasonable confidence based on distances from existing experience, otherwise quantities remain as undiscovered. Where log and core data and nearby producing analogs provide evidence of potential economic viability, a successful well test may not be required to assign Contingent Resources. Pilot projects may be needed to define Reserves, which requires further evaluation of technical and commercial viability.

2.4.0.5 A fundamental characteristic of engagement in a repetitive task is that it may improve performance over time. Attempts to quantify this improvement gave rise to the concept of the manufacturing progress function commonly called the "learning curve." The learning curve is characterized by a decrease in time and/or costs, usually in the early stages of a project when processes are being optimized. At that time, each new improvement may be significant. As the project matures, further improvements in time or cost savings are typically less substantial. In oil and gas developments with high well counts and a continuous program of activity (multi-year), the use of a learning curve within a resources evaluation may be justified to predict improvements in either the time taken to carry out the activity, the cost to do so, or both. While each development project is unique, review of analogs can provide guidance on such predictions and the range of associated uncertainty in the resulting recoverable resources estimates (see also Section 3.1.2 Economic Criteria).

3.0 Evaluation and Reporting Guidelines

3.0.0.1 The following guidelines are provided to promote consistency in project evaluations and reporting. "Reporting" in this document refers to the presentation of evaluation results within the entity conducting the evaluation and should not be construed as replacing requirements for public disclosures established by regulatory and/or other government agencies or any current or future associated accounting standards.

3.0.0.2 Reserves and resources evaluations are based on a set of defined conditions that are used to classify and categorize a project's expected recoverable quantities. The defined conditions include the factors that impact commerciality, such as decision hurdle rates; commodity prices; operating and capital costs; technical subsurface parameters; marketing, sales route(s); environmental, governmental, legal, and social factors; and timing issues. These factors are forecast for the project over time, and evaluators must clearly identify and document the assumptions used in the evaluation because these assumptions can directly impact the project quantities eligible for classification as Reserves or Resources. A project with Contingent Resources may not yet have all defined conditions addressed, and reasonable assumptions should be made and documented.

3.0.0.3 Hydrocarbon evaluations recognize production and transportation practices that involve methods of extraction other than through the flow of fluids from wells to surface facilities, such as surface mining of bitumen or in-situ conversion processes.

3.1 Assessment of Commerciality

3.1.0.1 Commercial assessments are conducted on a project basis and are based on the entity's view of future conditions. The forecast commercial conditions, technical feasibility, and the entity's decision to commit to the project are several of the key elements that underpin the project's resources classification. Commercial conditions include, but are not limited to, assumptions of an entity's investment hurdle criteria; financial conditions (e.g., costs, prices, fiscal terms, taxes); partners' investment decision(s); organization capabilities; and marketing, legal, environmental, social, and governmental factors. Project value may be assessed in several ways (e.g., cash flow analysis, historical costs, comparative market values, key economic parameters) (see Section 2.1.2, Determination of Commerciality). The guidelines herein apply only to assessments based on cash-flow analysis. Moreover, modifying factors that may additionally influence investment decisions, such as contractual or political risks, should be recognized so the entity may address these factors if they are not included in the project analysis.

3.1.1 Net Cash-Flow Evaluation

3.1.1.1 Project-based resource economic evaluations are based on estimates of future production and the associated net cash-flow schedules for each project as of an effective date. These net cash flows should be discounted using a defined discount rate, and the sum of the future discounted cash flows is termed the net present value (NPV) of the project. The calculation shall be based upon an appropriately defined reference point (see Section 3.2.1, Reference Point) and should reflect the following:

- A.** The forecast production quantities over identified time periods.
- B.** The estimated costs and schedule associated with the project to develop, recover, and produce the quantities to the reference point, including abandonment, decommissioning, and restoration (ADR) costs, based on the entity's view of the expected future costs.
- C.** The estimated revenues from the quantities of production based on the evaluator's view of the prices expected to apply to the respective commodities in future periods, taking into account any sales contracts or price hedges specific to a property, including that portion of the costs and revenues accruing to the entity.
- D.** Future projected production- and revenue-related taxes and royalties expected to be paid by the entity.
- E.** A project life that is limited to the period of economic interest or a reasonably certain estimate of the life expectancy of the project, which is typically truncated by the earliest occurrence of either technical, license, or economic limit.

F. The application of an appropriate discount applicable to the entity at the time of the evaluation.

3.1.2 Economic Criteria

3.1.2.1 Economic determination of a project is tested assuming a zero percent discount rate (i.e., undiscounted). A project with a positive undiscounted cumulative net cash flow is considered economic. Production from the project is economic when the revenue attributable to the entity interest from production exceeds the cost of operation. A project's production is economically producible when the net revenue from an ongoing producing project exceeds the net expenses attributable to a certain entity's interest. The ADR costs are excluded from the economically producibility determination. A project is commercial when it is economic and it meets the criteria discussed in Section 2.1.2.

3.1.2.2 Economic viability is tested by applying a forecast case that evaluates cash-flow estimates based on an entity's forecasted economic scenario conditions (including costs and product price schedules, inflation indexes, and market factors). The forecast made by the evaluator should reflect and document assumptions the entity assesses as reasonable to exist throughout the life of the project. Inflation, deflation, or market adjustments may be made to forecast costs and revenues.

3.1.2.3 Forecasts based solely on current economic conditions are estimated using an average of those conditions (including historical prices and costs) during a specified period. The default period for averaging prices and costs is one year. However, if a step change has occurred within the previous 12-month period, the use of a shorter period reflecting the step change must be justified. In developments with high well counts and a continuous program of activity, the use of a learning curve within a resources evaluation may be justified to predict improvements in either time taken to carry out the activity, the cost to do so, or both, if confirmed by operational evidence and documented by the evaluator. The confidence in the ability to deliver such savings must be considered in developing the range of uncertainty in production and NPV estimates.

3.1.2.4 All costs, including future ADR liabilities, are included in the project economic analysis unless specifically excluded by contractual terms. ADR is not included in determining the economic producibility or for determining the point the project reaches the economic limit (see Section 3.1.3, Economic Limit). ADR costs are included for project economics but are not included in judging economic producibility or determining the economic limit (see Section 3.1.3, Economic Limit). ADR costs may also be reported for other purposes, such as for a property sale/acquisition evaluation, future field planning, accounting report of future obligations, or as appropriate to the circumstances for which the resource evaluation is conducted. The entity is responsible for providing the evaluator with documentation to ensure that funds are available to cover forecast costs and ADR liabilities in line with the contractual obligations.

3.1.2.5 Figure 3.1 illustrates a net cash-flow profile for a simple project. The project's cumulative net cash flow exceeds the ADR liability, thereby satisfying the economic viability

required to consider a project's quantities as Reserves. The project's economic production (i.e., economic producibility) is truncated at the economic limit when the maximum cumulative net cash flow is achieved, before consideration of ADR.

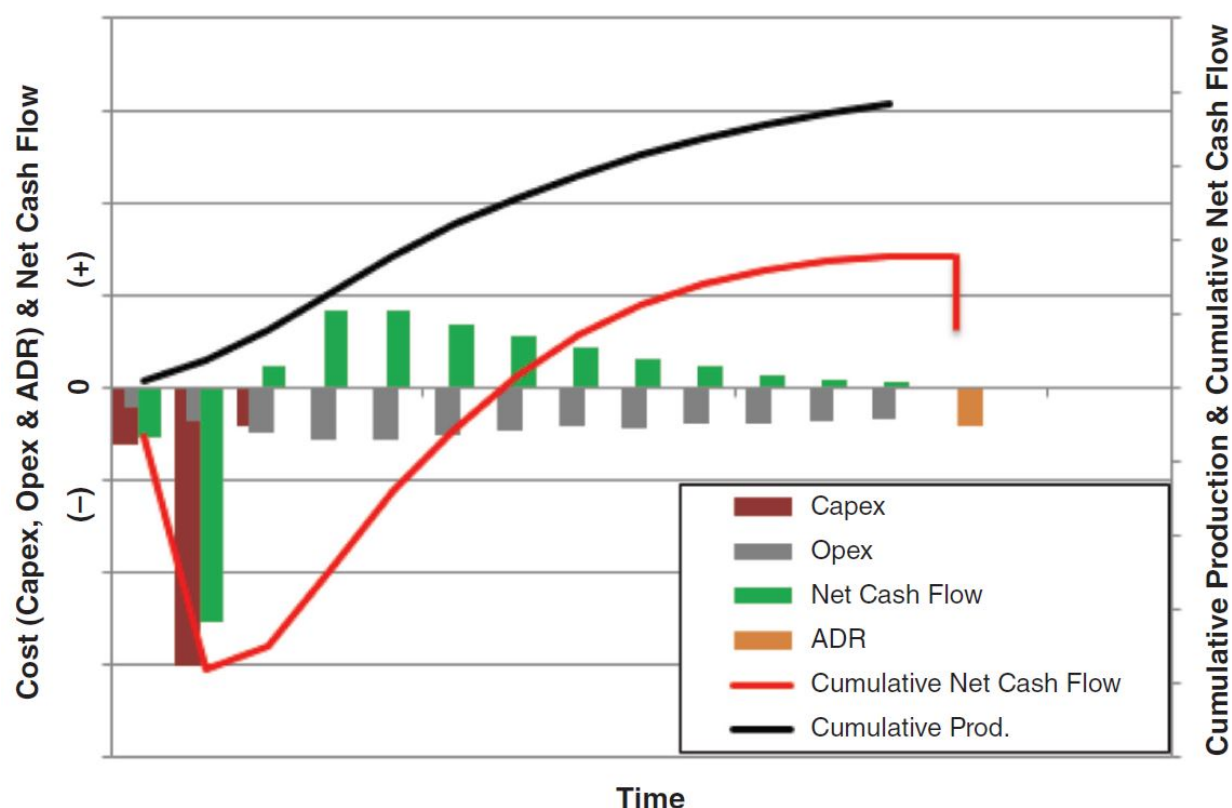


Figure 3.1—Undeveloped project economic forecast

3.1.2.6 Alternative economic scenarios may also be considered in the decision process and, in some cases, may supplement reporting requirements. Evaluators may examine a constant case in which current economic conditions are held constant without inflation or deflation throughout the project life.

3.1.2.7 Evaluations may also be modified to accommodate criteria regarding external disclosures imposed by regulatory agencies. For example, these criteria may include a specific requirement that, if the recovery were confined to the Proved Reserves estimate, the constant case should still generate a positive cash flow. External reporting requirements may also specify alternative guidance on the definition of current conditions or defined criteria with which to evaluate Reserves.

3.1.2.8 There may be circumstances in which the project meets criteria to be classified as Reserves using the best estimate (2P) forecast but the low case is not economic and fails to qualify for Proved Reserves. In this circumstance, the entity may record 2P and 3P estimates and no Proved Reserves. As costs are incurred in future years (i.e. become sunk costs) and development proceeds, the low estimate may eventually become economic and be reported

as Proved Reserves. Some entities, according to internal policy or to satisfy regulatory reporting requirements, will defer reclassifying projects from Contingent Resources to Reserves until the low estimate case is economic.

3.1.3 Economic Limit

3.1.3.1 The economic limit is defined as the production rate at the time when the maximum cumulative net cash flow occurs for a project. The entity's entitlement production share, and thus net entitlement resources, includes those produced quantities up to the earliest truncation occurrence of either technical, license, or economic limit.

3.1.3.2 In this evaluation, operating costs should include only those costs that are incremental to the project for which the economic limit is being calculated (i.e., only those cash costs that will actually be eliminated if project production ceases). Operating costs should include fixed property-specific overhead charges if these are actual incremental costs attributable to the project and any production and property taxes, but for purposes of calculating the economic limit, should exclude depreciation, ADR costs, and income tax as well as any overhead that is not required to operate the subject property. Operating costs may be reduced, and thus project life extended, by various cost-reduction and revenue-enhancement approaches, such as sharing of production facilities, pooling maintenance contracts, or marketing of associated nonhydrocarbons (see Section 3.2.4, Associated Non-Hydrocarbon Components).

3.1.3.3 For a given project, no future development costs can exist beyond the economic limit date. ADR costs are not included in the economic limit calculations, even though they may be reported for other purposes.

3.1.3.4 Interim negative project net cash flows may be accommodated in periods of development capital spending, low product prices, or major operational problems provided that the longer-term cumulative net-cash-flow forecast determined from the effective date becomes positive. These periods of negative cash flow will qualify as Reserves if the following positive periods more than offset the negative.

3.1.3.5 In some situations, entities may choose to initiate production below or continue production past the economic limit. Production must be economic to be considered as Reserves, and the intent to or act of producing sub-economic resources does not confer Reserves status to those quantities. In these instances, the production represents a movement from Contingent Resources to Production. However, once produced such quantities can be shown in the reconciliation process for production and revenue accounting as a positive technical revision to Reserves. No future sub-economic production can be Reserves.

3.2 Production Measurement

3.2.0.1 In general, all petroleum production from the well or mine is measured to allow for the evaluation of the extracted quantities' recovery efficiency in relation to the PIIP. The marketable product, as measured according to delivery specifications at a defined reference

point, provides the basis for sales production quantities. Other quantities that are not sales may not be as rigorously measured at the reference point(s) but are as important to take into account.

3.2.0.2 The operational issues in this section should be considered in defining and measuring production. While referenced specifically to Reserves, the same logic would be applied to projects forecast to develop Contingent and Prospective Resources conditional on discovery and development.

3.2.1 Reference Point

3.2.1.1 Reference point is a defined location within a petroleum extraction and processing operation where the produced quantities are measured or assessed. A reference point is typically the point of sale to third parties or where custody is transferred to the entity's midstream or downstream operations. Sales production and estimated Reserves are normally measured and reported in terms of quantities crossing this point over the period of interest.

3.2.1.2 The reference point may be defined by relevant accounting regulations to ensure that the reference point is the same for both the measurement of reported sales quantities and for the accounting treatment of sales revenues. This ensures that sales quantities are stated according to the delivery specifications at a defined price. In integrated projects, the appropriate price at the reference point may need to be determined using a netback calculation.

3.2.1.3 Sales quantities are equal to raw production less non-sales quantities (those quantities produced at the wellhead but not available for sales at the reference point). Non-sales quantities include petroleum consumed as lease fuel, flared, or lost in processing, plus non-hydrocarbons that must be removed before sale (including water). Each of these may be allocated using separate reference points but, when combined with sales, should sum to raw production. Sales quantities may need to be adjusted to exclude components added in processing but not derived from raw production. Raw production measurements are necessary and form the basis of many engineering calculations (e.g., material balance and production performance analysis) based on total reservoir voidage. Substances added to the production stream for various reasons, such as diluents added to enhance flow properties, are not to be counted as Production, sales quantities, Reserves, or Resources.

3.2.2 Consumed In Operations (CiO)

3.2.2.1 CiO (also termed lease fuel) is that portion of produced petroleum consumed as fuel in production or plant operations before the reference point.

3.2.2.2 Although Reserves are recommended to be sales quantities (see Section 1.1), the CiO quantities may be included as Reserves or Resources; when included these quantities must be stated and recorded separately from the sales portion. Entitlement rights for the fuel usage must be in place to recognize CiO as Reserves. Flared gas and oil and other petroleum

losses must not be included in either product sales or Reserves but once produced are included in produced quantities to account for total reservoir voidage.

3.2.2.3 The CiO quantities must not be included in the project economics because there is neither a cost incurred for purchase nor a revenue stream to recognize a sales quantity. The CiO fuel replaces the requirement to purchase fuel from external parties and results in lower operating costs. All actual costs for facilities-related equipment, the costs of the operations, and any purchased fuel must be included as an operating expense in the project economics.

3.2.3 Wet or Dry Natural Gas

3.2.3.1 The Reserves for wet or dry natural gas should be considered in the context of the specifications of the gas at the agreed reference point. Thus, for gas that is sold as wet gas, the quantity of the wet gas would be reported, and there would be no reporting of any associated hydrocarbon liquids extracted downstream of the reference point. It would be expected that the corresponding enhanced value of the wet gas would be reflected in the sales price achieved for such gas.

3.2.3.2 When liquids are extracted from the gas before sale and the gas is sold in dry condition, then the dry gas quantity and the extracted liquid quantities, whether condensate and/or natural gas liquids (NGLs), must be accounted for separately in resources assessments at the agreed reference point(s).

3.2.4 Associated Non-Hydrocarbon Components

3.2.4.1 In the event that non-hydrocarbon components are associated with production, the reported quantities should reflect the agreed specifications of the petroleum product at the reference point. Correspondingly, the accounts will reflect the value of the petroleum product at the reference point. If it is required to remove all or a portion of non-hydrocarbons before delivery, the Reserves and Production should reflect only the marketable product recognized at the reference point.

3.2.4.2 Even if an associated non-hydrocarbon component, such as helium or sulfur, removed before the reference point is subsequently separately marketed, these quantities are included in the voidage extraction quantities (e.g., raw production) from the reservoir but are not included in Reserves. The revenue generated by the sale of non-hydrocarbon products may be included in the project's economic evaluation.

3.2.5 Natural Gas Re-Injection

3.2.5.1 Natural gas production can be re-injected into a reservoir for a number of reasons and under a variety of conditions. Gas can be re-injected into the same reservoir or into other reservoirs located on the same property for recycling, pressure maintenance, miscible injection, or other enhanced oil recovery processes. In cases where the gas has no transfer of ownership and with a development plan that is technically and commercially mature, the gas quantity estimated to be eventually recoverable can be included as Reserves.

3.2.5.2 If injected gas quantities are included as Reserves, these quantities must meet the criteria in the definitions, including the existence of a viable development, transportation, and sales marketing plan. Gas quantities should be reduced for losses associated with the re-injection and subsequent recovery process. Gas quantities injected into a reservoir for gas disposal with no committed plan for recovery are not classified as Reserves. Gas quantities purchased for injection and later recovered are not classified as Reserves.

3.2.6 Underground Natural Gas Storage

3.2.6.1 Natural gas injected into a gas storage reservoir, which will be recovered later (e.g., to meet peak market demand periods) should not be included as Reserves.

3.2.6.2 The gas placed in the storage reservoir may be purchased or may originate from prior native production. It is important to distinguish injected gas from any remaining native recoverable quantities in the reservoir. On commencing gas production, allocation between native gas and injected gas may be subject to local regulatory and accounting rulings. Native gas production would be drawn against the original field Reserves. The uncertainty with respect to original field quantities remains with the native reservoir gas and not the injected gas.

3.2.6.3 There may be occasions in which gas is transferred from one lease or field to another without a sale or custody transfer occurring. In such cases, the re-injected gas could be included with the native reservoir gas as Reserves.

3.2.6.4 The same principles regarding separation of native resources from injected quantities would apply to underground liquid storage.

3.2.7 Mineable Oil Sand

3.2.7.1 Mineable oil sands that meet the criteria listed in Section 2.1.2 can be considered as a potentially economic material and therefore Reserves. Mining operations may result in mined materials being stockpiled rather than processed. Stockpiled mined oil sands should be included in Reserves only when the project to recover and blend the stockpile has achieved technical and commercial maturity. The project's quantities are not included in Production until measured at the reference point.

3.2.8 Production Balancing

3.2.8.1 Reserves estimates must be adjusted for production withdrawals. This may be a complex accounting process when the allocation of Production among project participants is not aligned with their entitlement to Reserves. Production overlift or underlift can occur in oil production records because participants may need to lift their production in parcel sizes or cargo quantities to suit available shipping schedules agreed upon by the parties. Similarly, an imbalance in gas deliveries can result from the participants having different operating or marketing arrangements that prevent gas quantities sold from being equal to the entitlement share within a given time period.

3.2.8.2 Based on production matching the internal accounts, annual production should generally be equal to the liftings actually made by the entity and not on the production entitlement for the year. However, actual production and entitlements must be reconciled in Reserves assessments. Resulting imbalances must be monitored over time and eventually resolved before project abandonment.

3.2.9 Equivalent Hydrocarbon Conversion

3.2.9.1 The industry sometimes simplifies communication of Reserves, Resources, and Production quantities with the term "barrel of oil equivalent" (BOE). The term allows for consolidation of multiple product types into a single equivalent product. In instances where natural gas is the predominate product, liquids may be converted to gas equivalence (i.e. one thousand cubic feet (MCF) volume= 1 McfGE (MCF gas equivalent)).

3.2.9.2 Oil, condensate, bitumen and synthetic crude oil can be summed together without conversion (i.e., 1 bbl volume = 1 BOE). NGLs may need to be converted, depending on the actual composition. Natural gas must be converted to report on a BOE basis.

3.2.9.3 The presentation of Reserve or Resources quantities should be made in the appropriate units for each individual product type reported (e.g. barrels, cubic meters, metric tonnes, joules, etc.). If BOE's or McfGE's are presented, they must be provided as supplementary information to the actual liquid or gas quantities with the conversion factor(s) clearly stated.

3.3 Resources Entitlement and Recognition

3.3.0.1 While assessments are conducted to establish estimates of the total PIIP and that portion recovered by defined projects, the allocation of sales quantities, costs, and revenues impacts the project economics and commerciality. This allocation is governed by the applicable contracts between the mineral lease owners (lessors) and contractors (lessees) and is generally referred to as entitlement.

3.3.0.2 Evaluators must ensure that, to their knowledge, the recoverable resource entitlements from all participating entities sum to the total recoverable resources.

3.3.0.3 The ability for an entity to recognize Reserves and Resources is subject to satisfying certain key elements. These include (a) having an economic interest through the mineral lease or concession agreement (i.e., right to proceeds from sales); (b) exposure to market and technical risk; and (c) the opportunity for reward through participation in exploration, appraisal, and development activities. Given the complexities of some agreements, there may be additional elements that must be considered in determining entitlement and the recognition of Reserves and Resources.

3.3.0.4 For publicly traded companies, securities regulators may set criteria regarding the classes and categories that can be "recognized" in external disclosures. For national interests, the reporting of 100% quantities without concession agreement constraints is typically specified.

3.3.1 Royalty

3.3.1.1 Royalty refers to a type of entitlement interest in a resources project that is free and clear of the costs and expenses of development and production to the royalty interest owner as opposed to a working interest where an entity has cost exposure. A royalty is commonly retained by a resources owner (lessor/ host) when granting rights to a producer (lessee/contractor) to develop and produce the resources. Depending on the specific terms defining the royalty, the payment obligation may be expressed in monetary terms as a portion of the proceeds of production in-cash or as a right to take a portion of production in-kind. The royalty terms may also provide the option to switch between forms of payment at the discretion of the royalty owner. In either case, royalty quantities must be deducted from the lessee's entitlement to resources so that only net revenue interest quantities are recognized.

3.3.1.2 In some agreements, production taxes imposed by the host government may be referred to as royalties. These payment obligations are expressed in monetary terms and are typically linked to production rates, quantities produced, cost recovery, the value of production (price sensitive), or the profits derived from it. These payments are not associated with an interest retained by the lessor/host. Thus, such payment obligations are effectively a production tax instead of a royalty. In such cases, the production and underlying resources are controlled by the lessee/contractor who may (subject to contractual terms and/or regulatory guidance) elect to report these obligations as a tax without a corresponding reduction in lessor/ contractor's entitlement.

3.3.1.3 Conversely, if an entity owns a royalty or equivalent interest of any type in a project, the related quantities can be included in resources entitlements and should not be included in entitlements of others.

3.3.2 Production-Sharing Contract Reserves

3.3.2.1 Production-sharing contracts (PSCs) of various types are used in many countries instead of conventional tax-royalty systems. Under the PSC terms, producers have an entitlement to a portion of the production. This net entitlement, often referred to as entitlement, occurs when a net economic interest is held by an entity and is estimated using a formula based on the contract terms incorporating costs and profits. The terms of the PSC provide the remuneration to the host government/lessor that would be accomplished by the royalty in other agreements.

3.3.2.2 Ownership of the production is retained by the host government; however, the contractor may receive title to the prescribed share of the quantities when produced or at point of sale and may claim that share as their Reserves.

3.3.2.3 Risk service contracts (RSCs) are similar to PSCs, but the producers may be paid in cash rather than in production. As with PSCs, the Reserves claimed are based on the entity's economic interest as risk is borne by the contractor. Care needs to be taken to distinguish between an RSC and a pure service contract. Reserves can be claimed in an RSC, whereas

no Reserves can be claimed for pure service contracts because there is insufficient exposure to petroleum exploration, development, and market risks and the producers act as contractors.

3.3.2.4 Unlike conventional tax-royalty agreements, the cost recovery system in production-sharing, risk-service, and other related contracts typically reduce the production share and hence Reserves entitlement to a contractor in periods of high price and increase quantities in periods of low price. While this ensures cost recovery, it also introduces significant price-related volatility in annual Reserves estimates under cases using a constant case. The terms governing cost recovery in a particular PSC may require special treatment of items such as taxes, overhead, and ADR to determine entitlement.

3.3.2.5 The treatment of taxes and the accounting procedures used can also have a significant impact on the Reserves recognized and production reported from these contracts.

3.3.3 Contract Extensions or Renewals

3.3.3.1 As production-sharing or other types of agreements approach the specified end date, extensions may be obtained through contract negotiation, by the exercise of options to extend, or by other means.

3.3.3.2 Reserves cannot be claimed for those quantities that will be produced beyond the expiration date of the current agreement unless there is reasonable expectation that an extension, a renewal, or a new contract will be granted. Such reasonable expectation may be based on the status of renewal negotiations and historical treatment of similar agreements by the license-issuing jurisdiction. Otherwise, forecast production beyond the contract term must be classified as Contingent Resources with an associated reduced chance of commercialization. Moreover, it may not be reasonable to assume that the fiscal terms in a negotiated extension will be similar to existing terms.

3.3.3.3 Similar logic should be applied where gas sales agreements are required to ensure adequate markets. Reserves should not be claimed for quantities that will be produced beyond those specified in the current agreement or that do not have a reasonable expectation to be included in either contract renewals or future agreements.

APPENDIX 3: WELL DATABASE

Well Name	UWI	Label	Easting	Northing	RL	Hole Angle	Total Depth
HDR 1	VR1239	HDR01	27610.29	3112421.65	1294.00	90.00	484.00
Burning Cross	VR1187	1307	27976.6	3111368.3	1287.60	90.00	1092.33
EX 1	VR0512	EX01				90.00	
Highpipe	VR0846	2057	25854.4	3108505.8	1323.17	90.00	1627.00
HZON 1	VR2352	HZON01				90.00	
MDR 5			27251	3111658.5	1219.52	90.00	350.00
ML 1	VR1126	1370	24573	3132720.1	1410.95	90.00	1237.75
Retreat	VR0091	DW54403	34874.4	3129059.8	1372.37	90.00	513.70
ST 23	VR0588	ST23	25671.9	3120629.3	1340.77	90.00	1866.95
SPG 3 \ Lucky	VR1162	SPG03	25320.9	3130173.8		90.00	
Squatter	VR0848	2089	25852.4	3109095.8	1317.36	90.00	1750.60
Tewie-1400	VR0453	1400	25187.6	3123069.8	1357.15	90.00	1459.55
Burning Flame	VR0854	2190	22134.5	3108509.2	1344.08	90.00	1411.40
DBE 1	VR0489	DBE1	23747.2	3118794.8	1344.99	90.00	1090.00
SP 3	VR1026	SAP11	16593.4	3101476.4	1362.54	90.00	
Flame 1	VR0858	2278	21345.5	3109501.8	1335.32	90.00	1287.50
Sand	VR1191	1629	26806.6	3110762.9	1296.20	90.00	2163.24
BN 56120A	VR0037	Dumidi	32288.3	3111882.8	1300.10	90.00	356.00

For additional information an expanded electronic version is available.

APPENDIX 4: TETRA4 PRICING FORECAST MARCH 2019

Methane Price Calculation

Renergen/Tetra4 methane price calculation

wholesale LNG fraction =	30%
transport fraction =	70%
scf/GJ =	1016

wholesale LNG price, ZAR/GJ =	220
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wholesale LNG price, ZAR/mcf =	217
wholesale LNG price fraction, ZAR/mcf =	65

diesel price, ZAR/l =	14.20
diesel energy content, MJ/kg =	48
diesel density, kg/l =	0.832
discount to diesel =	0.7

diesel equiv LNG price, ZAR/mcf =	245
diesel equiv LNG price fraction, ZAR/mcf =	171

composite gas price, ZAR/mcf =	236
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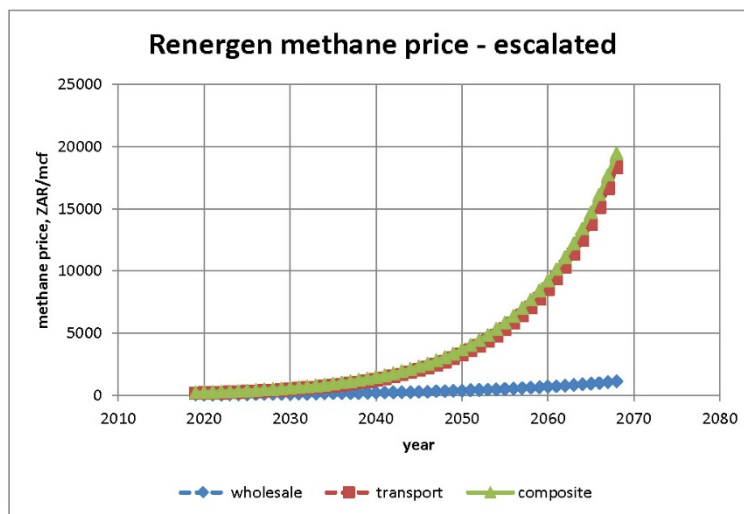
References-

1. Renergen_LHGP Phase II Debt Model v0.6MHA_jps.xls
2. Engineering Toolbox, www.engineeringtoolbox.com, accessed 2/15/19
3. Wikipedia, en.wikipedia.org/wiki/Diesel, accessed 2/15/19

Methane Escalated Price Calculation

 escalation, %/yr =

count	year	methane price, ZAR/mcf			
		wholesale	transport	composite	esc, %/yr
1	2019	65	171	236	1.000
2	2020	69	189	257	1.089
3	2021	73	207	280	1.089
4	2022	77	228	306	1.090
5	2023	82	251	333	1.090
6	2024	87	276	363	1.090
7	2025	92	304	396	1.090
8	2026	98	334	432	1.091
9	2027	104	368	471	1.091
10	2028	110	404	514	1.091
11	2029	116	445	561	1.091
12	2030	123	489	613	1.092
13	2031	131	538	669	1.092
14	2032	139	592	731	1.092
15	2033	147	651	798	1.092
16	2034	156	716	872	1.093
17	2035	165	788	953	1.093
18	2036	175	867	1042	1.093
19	2037	185	953	1139	1.093
20	2038	197	1049	1245	1.093
21	2039	208	1154	1362	1.094



Helium Escalated Price Calculation

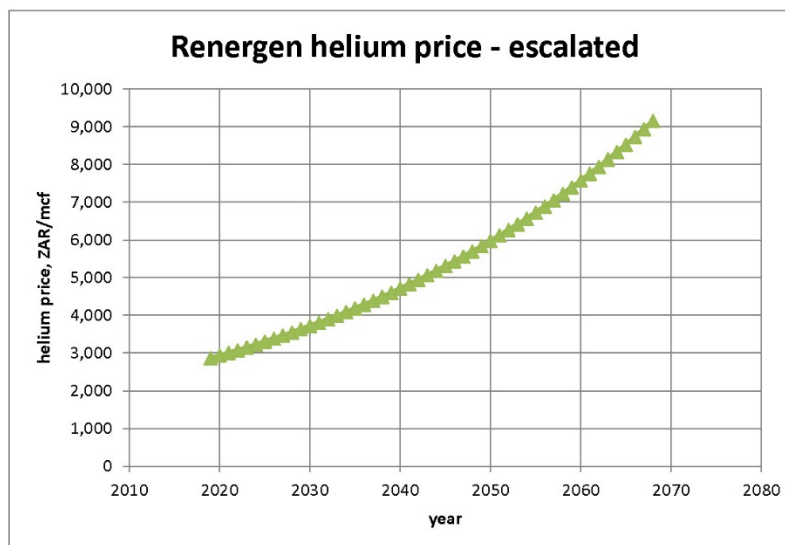
 escalation, %/yr =

 kg He/mcf He =
 ZAR/USD

Ref: helium_kg_mcf_conversion.xls

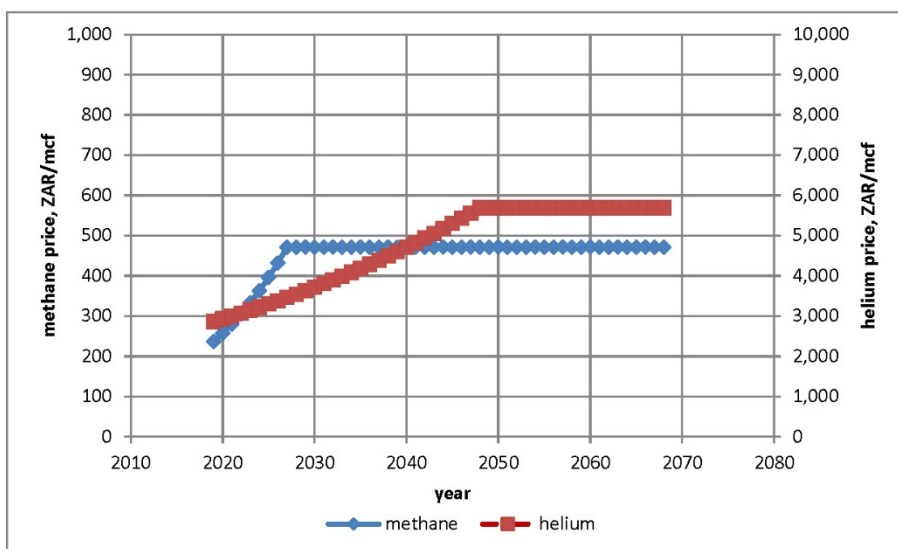
Ref: Renergen_LHGP Phase II Debt Model v0.6MHA_jps.xls

count	year	helium price		
		USD/kg	USD/mcf	ZAR/mcf
1	2019	42.60	199.79	2,863
2	2020	43.62	204.59	2,932
3	2021	44.67	209.50	3,002
4	2022	45.74	214.53	3,074
5	2023	46.84	219.68	3,148
6	2024	47.96	224.95	3,224
7	2025	49.11	230.35	3,301
8	2026	50.29	235.88	3,380
9	2027	51.50	241.54	3,461
10	2028	52.74	247.33	3,544
11	2029	54.00	253.27	3,629
12	2030	55.30	259.35	3,716
13	2031	56.63	265.57	3,806
14	2032	57.98	271.95	3,897
15	2033	59.38	278.47	3,991
16	2034	60.80	285.16	4,086
17	2035	62.26	292.00	4,184
18	2036	63.75	299.01	4,285
19	2037	65.28	306.18	4,388
20	2038	66.85	313.53	4,493
21	2039	68.46	321.06	4,601



Methane and Helium Prices

count	year	methane, ZAR/mcf	helium ZAR/mcf
1	2019	236	2,863
2	2020	257	2,932
3	2021	280	3,002
4	2022	306	3,074
5	2023	333	3,148
6	2024	363	3,224
7	2025	396	3,301
8	2026	432	3,380
9	2027	471	3,461
10	2028	471	3,544
11	2029	471	3,629
12	2030	471	3,716
13	2031	471	3,806
14	2032	471	3,897
15	2033	471	3,991
16	2034	471	4,086
17	2035	471	4,184
18	2036	471	4,285
19	2037	471	4,388
20	2038	471	4,493
21	2039	471	4,601



year	methane, ZAR/mcf	helium ZAR/mcf
2019	236	2,863
2020	257	2,932
2021	280	3,002
2022	306	3,074
2023	333	3,148
2024	363	3,224
2025	396	3,301
2026	432	3,380
2027	471	3,461
2028	471	3,544
2029	471	3,629
2030	471	3,716
2031	471	3,806
2032	471	3,897
2033	471	3,991
2034	471	4,086
2035	471	4,184
2036	471	4,285
2037	471	4,388
2038	471	4,493
2039	471	4,601
2040	471	4,711
2041	471	4,824
2042	471	4,940
2043	471	5,059
2044	471	5,180
2045	471	5,304
2046	471	5,432
2047	471	5,562
2048	471	5,695
2049	471	5,695
2050	471	5,695
2051	471	5,695
2052	471	5,695
2053	471	5,695
2054	471	5,695
2055	471	5,695
2056	471	5,695
2057	471	5,695
2058	471	5,695
2059	471	5,695
2060	471	5,695
2061	471	5,695
2062	471	5,695
2063	471	5,695
2064	471	5,695
2065	471	5,695
2066	471	5,695
2067	471	5,695
2068	471	5,695

APPENDIX 5: ABBREVIATIONS

This appendix contains a list of abbreviations found in MHA Petroleum Consultants, Inc. reports, as well as a table comparing Imperial and Metric units. Two conversion tables, used to prepare this report, are also provided.

AOF	absolute open flow
ARTC	Alberta Royalty Tax Credit
BOE	barrels of oil equivalent
bopd	barrels of oil per day
bwpd	barrels of water per day
Cr	Crown
DCQ	daily contract quantity
DSU	drilling spacing unit
FH	Freehold
GCA	gas cost allowance
GOR	gas-oil ratio
GORR	gross overriding royalty
LPG	liquid petroleum gas
M	Millions
m	thousands
Mcfpd	thousands of cubic feet per day
MPR	maximum permissive rate
MRL	maximum rate limitation
NC	'new' Crown
NCI	net carried interest
NGL	natural gas liquids
NORR	net overriding royalty
NPI	net profits interest
OC	'old' Crown
ORRI	overriding royalty interest
P&NG	petroleum and natural gas
PSU	production spacing unit
PVT	pressure-volume-temperature
TCGSL	TransCanada Gas Services Limited
UOCR	Unit Operating Cost Rates for operating gas cost allowance
WI	working interest

Imperial Units			Metric Units	
M (10 ³)	one thousand		k (10 ³)	one thousand
MM (10 ⁶)	million	Prefixes	M (10 ⁶)	million
B (10 ⁹)	one billion		T (10 ¹²)	one billion E
T (10 ¹²)	one trillion		(10 ¹⁸)	one trillion G
			(10 ⁹)	one milliard
in.	inches	Length	cm	centimetres
ft	feet		m	metres
mi	mile		km	kilometres
ft ²	square feet	Area	m ²	square metres
ac	acres		ha	hectares
cf or ft ³	cubic feet	Volume	m ³	cubic metres
scf	standard cubic feet			
gal	gallons		L	litres
Mcf	thousand cubic feet			
Mcfpd	thousand cubic feet per day			
MMcf	million cubic feet			
MMcfpd	million cubic feet per day			
Bcf	billion cubic feet (10 ⁹)			
bbl	barrels		m ³	cubic metre
Mbbl	thousand barrels			
stb	stock tank barrel		stm ³	stock tank cubic metres
bbl/d	barrels per day		m ³ /d	cubic metre per day
Btu	British thermal units	Energy	J	joules
			MJ/m ³	megajoules per cubic metre (10 ⁶)
			TJ/d	terajoule per day (10 ¹²)
oz	ounce	Mass	g	gram
lb	pounds		kg	kilograms
ton	ton		t	tonne
lt	long tons			
Mlt	thousand long tons			
psi	pounds per square inch	Pressure	Pa	pascals
psia	pounds per square inch absolute		kPa	kilopascals (10 ³)
psig	pounds per square inch gauge			
°F	degrees Fahrenheit	Temperature	°C	degrees Celsius
°R	degrees Rankine		K	Kelvin
M\$	thousand dollars	Dollars	k\$	thousand dollars

Imperial Units		Time	Metric Units	
sec	second		s	second
min	minute		min	minute
hr	hour		h	hour
day	day		d	day
wk	week			week
mo	month			month
yr	year		a	annum

Conversion Factors — Metric to Imperial

cubic metres (m ³) (@ 15°C)	x 6.29010	= barrels (bbl) (@ 60°F), water
m ³ (@ 15°C)	x 6.3300	= bbl (@ 60°F), Ethane
m ³ (@ 15°C)	x 6.30001	= bbl (@ 60°F), Propane
m ³ (@ 15°C)	x 6.29683	= bbl (@ 60°F), Butanes
m ³ (@ 15°C)	x 6.29287	= bbl (@ 60°F), oil, Pentanes Plus
m ³ (@ 101.325 kPaa, 15°C)	x 0.0354937	= thousands of cubic feet (Mcf) (@ 14.65 psia, 60°F)
1,000 cubic metres (10 ³ m ³) (@ 101.325 kPaa, 15°C)	x 35.49373	= Mcf (@ 14.65 psia, 60°F)
hectares (ha)	x 2.4710541	= acres
1,000 square metres (10 ³ m ²)	x 0.2471054	= acres
10,000 cubic metres (ha·m)	x 8.107133	= acre feet (ac-ft)
m ³ /10 ³ m ³ (@ 101.325 kPaa, 15°C)	x 0.0437809	= Mcf/Ac.ft. (@ 14.65 psia, 60°F)
joules (j)	x 0.000948213	= Btu
megajoules per cubic metre (MJ/m ³) (@ 101.325 kPaa, 15°C)	x 26.714952	= British thermal units per standard cubic foot (Btu/scf) (@ 14.65 psia, 60°F)
dollars per gigajoule (\$/GJ)	x 1.054615	= \$/Mcf (1,000 Btu gas)
metres (m)	x 3.28084	= feet (ft)
kilometres (km)	x 0.6213712	= miles (mi)
dollars per 1,000 cubic metres (\$/10 ³ m ³)	x 0.0288951	= dollars per thousand cubic feet (\$/Mcf) (@ 15.025 psia) B.C.
(\$/10 ³ m ³)	x 0.02817399	= \$/Mcf (@ 14.65 psia) Alta.
dollars per cubic metre (\$/m ³)	x 0.158910	= dollars per barrel (\$/bbl)
gas/oil ratio (GOR) (m ³ /m ³)	x 5.640309	= GOR (scf/bbl)
kilowatts (kW)	x 1.341022	= horsepower
kilopascals (kPa)	x 0.145038	= psi
tonnes (t)	x 0.9842064	= long tons (LT)
kilograms (kg)	x 2.204624	= pounds (lb)
litres (L)	x 0.2199692	= gallons (Imperial)
litres (L)	x 0.264172	= gallons (U.S.)
cubic metres per million cubic metres (m ³ /10 ⁶ m ³) (C ₃)	x 0.177496	= barrels per million cubic feet (bbl/MMcf) (@ 14.65 psia)
m ³ /10 ⁶ m ³ (C ₄)	x 0.1774069	= bbl/MMcf (@ 14.65 psia)
m ³ /10 ⁶ m ³ (C ₅₊)	x 0.1772953	= bbl/MMcf (@ 14.65 psia)
tonnes per million cubic metres (t/10 ⁶ m ³) (sulphur)	x 0.0277290	= LT/MMcf (@ 14.65 psia)
millilitres per cubic meter (mL/m ³) (C ₅₊)	x 0.0061974	= gallons (Imperial) per thousand cubic feet (gal (Imp)/Mcf)
(mL/m ³) (C ₅₊)	x 0.0074428	= gallons (U.S.) per thousand cubic feet (gal (U.S.)/Mcf)
Kelvin (K)	x 1.8	= degrees Rankine (°R)
millipascal seconds (mPa·s)	x 1.0	= centipoise

Conversion Factors — Imperial to Metric		
barrels (bbl) (@ 60°F)	x 0.15898	= cubic metres (m ³) (@ 15°C), water
bbl (@ 60°F)	x 0.15798	= m ³ (@ 15°C), Ethane
bbl (@ 60°F)	x 0.15873	= m ³ (@ 15°C), Propane
bbl (@ 60°F)	x 0.15881	= m ³ (@ 15°C), Butanes
bbl (@ 60°F)	x 0.15891	= m ³ (@ 15°C), oil, Pentanes Plus
thousands of cubic feet (Mcf) (@ 14.65 psia, 60°F)	x 28.17399	= m ³ (@ 101.325 kPaa, 15°C)
Mcf (@ 14.65 psia, 60°F)	x 0.02817399	= 1,000 cubic metres (10 ³ m ³) (@ 101.325 kPaa, 15°C)
acres	x 0.4046856	= hectares (ha)
acres	x 4.046856	= 1,000 square metres (10 ³ m ²)
acre feet (ac-ft)	x 0.123348	= 10,000 cubic metres (10 ⁴ m ³) (ha·m)
Mcf/ac-ft (@ 14.65 psia, 60°F)	x 22.841028	= 10 ³ m ³ /m ³ (@ 101.325 kPaa, 15°C)
Btu	x 1054.615	= joules (J)
British thermal units per standard cubic foot (Btu/Scf) (@ 14.65 psia, 60°F)	x 0.03743222	= megajoules per cubic metre (MJ/m ³) (@ 101.325 kPaa, 15°C)
\$/Mcf (1,000 Btu gas)	x 0.9482133	= dollars per gigajoule (\$/GJ)
\$/Mcf (@ 14.65 psia, 60°F) Alta.	x 35.49373	= \$/10 ³ m ³ (@ 101.325 kPaa, 15°C)
\$/Mcf (@ 15.025 psia, 60°F), B.C.	x 34.607860	= \$/10 ³ m ³ (@ 101.325 kPaa, 15°C)
feet (ft)	x 0.3048	= metres (m)
miles (mi)	x 1.609344	= kilometres (km)
\$/bbl	x 6.29287	= \$/m ³ (average for 30°-50° API)
GOR (scf/bbl)	x 0.177295	= gas/oil ratio (GOR) (m ³ /m ³)
horsepower	x 0.7456999	= kilowatts (kW)
psi	x 6.894757	= kilopascals (kPa)
long tons (LT)	x 1.016047	= tonnes (t) pounds
(lb)	x 0.453592	= kilograms (kg)
gallons (Imperial)	x 4.54609	= litres (L) (.001 m ³)
gallons (U.S.)	x 3.785412	= litres (L) (.001 m ³)
barrels per million cubic feet (bbl/MMcf) (@ 14.65 psia) (C ₃)	x 5.6339198	= cubic metres per million cubic metres (m ³ /10 ⁶ m ³)
bbl/MMcf (C ₄)	x 5.6367593	= (m ³ /10 ⁶ m ³)
bbl/MMcf (C ₅₊)	x 5.6403087	= (m ³ /10 ⁶ m ³)
LT/MMcf (sulphur)	x 36.063298	= tonnes per million cubic metres (t/10 ⁶ m ³)
gallons (Imperial) per thousand cubic feet (gal (Imp)/Mcf) (C ₅₊)	x 161.3577	= millilitres per cubic meter (mL/m ³)
gallons (U.S.) per thousand cubic feet (gal (U.S.)/Mcf) (C ₅₊)	x 134.3584	= (mL/m ³)
degrees Rankine (°R)	x 0.555556	= Kelvin (K)
centipoises	x 1.0	= millipascal seconds (mPa·s)

A vertical yellow line is positioned to the left of the title text.

Legal Report on Title

6 March 2019

The Board
Renergen Limited
1 Bompas Road
Dunkeld West
Randburg
2196



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Your reference

Our reference

REN10305

Dear Sirs

SOLICITOR'S REPORT ON MINERAL AND PETROLEUM TENEMENTS HELD BY TETRA4 PROPRIETARY LIMITED – PROSPECTUS – RENERGEN LIMITED

1 Introduction

- 1.1 This Report is prepared for inclusion in a prospectus (**Prospectus**) to be issued by Renergen Limited (**the Company**) to raise a minimum of A\$5,000,000 with the ability to accept oversubscriptions up to A\$5,000,000 (before associated costs) via the initial public offering (**IPO**) of fully paid ordinary shares in the Company (**Shares**). In conjunction with the IPO the Company will apply for admission to the Australia Securities Exchange (**ASX**) and seek quotation of its Shares on ASX.
- 1.2 This Report relates to the various South African mineral and petroleum rights held by the Company's subsidiary, Tetra4 (Pty) Ltd (**Tetra4**) (**the Tenements**), as set out in the Schedule of Tenements (**the Schedule**) which, together with the general legislative information section and the Notes to the Schedule of Tenements (**the Notes**), forms part of this Report.
- 1.3 In particular, this report confirms that:
- (1) Tetra is the registered 100% holder of the Virginia Gas Field Production Right (Production Right in respect of certain areas in the districts of Venterburg, Welkom, Odendaalsrus in the Free State Province, with reference number 12/3/1/07/2/2 PR);
 - (2) the Virginia Gas Field Production Right is valid, in force and has not been withdrawn or suspended and is not subject to any appeal; and
 - (3) to the best of our knowledge, Tetra4 is not in contravention of any of the conditions imposed by the Department of Mineral Resources in relation to the Virginia Gas Field Production Right.

2 Information related to Tenements

- 2.1 In our opinion, the Schedule contains a statement as at 25 February 2019 of:

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Norton Rose Fulbright South Africa Inc (Reg No 1984/003385/21) Directors: SWM Gule (chairman) D Dinnie (chief executive officer) K Ainslie MH Alexander S Anthony LA Astfalk SH Barnett HI Bisset BE Botha GG Bouwer PA Bracher DR Breier AJ Chappel M Chavoss SL Chemaly C Costas KR Cron MO Dale V David BM Denny AGS Dixon L Fine BB Harber MJ Hart MC Hartwell RB Isaacs HJ Janse van Rensburg J Jones GCB Kahle DS Kapelus ZS Kathrada AP Keller SJ Kennedy-Good SS Khoza L Kok JM Kron HY Laher IS Laher REF Lake PE Lamb WP le Roux RDE Lomax LN Louw LL Magagula HL Manson EJ McCaul DL McConnell JE Midlane RA Moosa AA Moosajee PH Niehaus GA Nott L Oberholzer MJ Osborn RP Petersen M Philippides DR Pillay CJ Pretorius GM Rademeyer L Rech D Reddy V Reddy APM Robinson Y Rungasammy AP Schelhase A Singh S Sithole AK Strachan DS Tatham CK Theodosiou R Thavani M van der Westhuizen JG van Dijk C van Vuuren AP Vos M Wagener AP Wellsted JJ Whyte LE Williams C Woolley
Consultant: PM Chronis MR Gibson RJ Holwill AP Williams

Norton Rose Fulbright South Africa Inc, Norton Rose Fulbright LLP, Norton Rose Fulbright Australia, Norton Rose Fulbright Canada LLP and Norton Rose Fulbright US LLP are separate legal entities and all of them are members of Norton Rose Fulbright Verein, a Swiss Verein. Norton Rose Fulbright Verein helps coordinate the activities of the members but does not itself provide legal services to clients. Details of each entity, with certain regulatory information, are available at nortonrosefulbright.com.

6 March 2019

- (1) the type of title, registered holder and status of each of the Tenements; and
 - (2) in the case of the ungranted Tenements, the status of the application for that title.
- 2.2 With respect to the ungranted Tenements, we express no opinion as to whether such application will be successfully granted.
- 2.3 To the best of our knowledge, Tetra4 and/or the Company has no interests or contractual rights in Tenements in respect of which the Company or Tetra4 is neither the registered holder nor the applicant.

3 Assumptions and Qualifications

- 3.1 For the purpose of giving this Report, we have assumed but have not verified independently:
- (1) that the information provided to us by the Company, Tetra4, relevant South African Government agencies and any other person is correct and up to date as at the date it was received by us;
 - (2) the authenticity of all signatures, seals and dates, and of any stamp duty endorsement or marking upon the copies of any documents provided to us and any other documents reviewed; and
 - (3) the completeness, and conformity to originals, of all copies of documents submitted to or otherwise reviewed by us.
- 3.2 Although nothing has come to our attention to lead us to believe that such assumptions are incorrect, we have not made any independent investigations in respect to the matters the subject of our assumptions.
- 3.3 This report is subject to the following qualifications:
- (1) the holding of the Tenements is subject to compliance with the terms and conditions and the provisions of the Mineral and Petroleum Resources Development Act¹ (MPRDA);
 - (2) in relation to each Tenement mentioned in this report, we do not express an opinion as to the validity of any Tenement;
 - (3) there may be agreements with affected communities or parties of which we are not aware;
 - (4) the information in the Schedule is accurate as at the date of 25 February 2019. We do not comment on whether any changes have occurred in respect of the Tenements between that date and the date of this Report;
 - (5) this report is based only upon the information and materials which are described in this Report. There may be additional information and materials (of which we are unaware) which contradict or qualify that which we have described;
 - (6) a registered mineral right, permit or permission holder's entitlement to such right can be defective if there were procedural defects in the original grant of the right, permit or permission. We are unable to confirm whether there are any such defects in the Tenements disclosed in this report without a detailed review of the register for each Tenement and other matters;
 - (7) this Report relates only to the laws of the Republic of South Africa in force at the date of this Report and we do not express or imply any opinion as to the laws at any other time or of any other jurisdiction;
 - (8) in the performance of our enquiries for this report, we have acted on the Company's written and oral instructions as to the manner and extent of enquiries to be conducted; and

¹ 28 of 2002
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6 March 2019

- (9) this Report is strictly limited to the matters it deals with and does not extend by implication or otherwise to any other matter.

4 Consents

- 4.1 This report has been prepared only for the purposes of the Prospectus and is not to be relied on or used for any other purpose. Norton Rose Fulbright South Africa Incorporated (**NRFSA**) consents to being named in the Prospectus as being responsible for the preparation of this Report. NRFSA has given its consent to the issue of the Prospectus with the inclusion of this Report, and shall not withdraw such consent prior to the date of lodgement.
- 4.2 Except for in this Report, or as otherwise provided, NRFSA:
- (1) have not in any way authorised or caused the issue of the Prospectus;
 - (2) are not responsible for any matter included in, or omitted from, the Prospectus;
 - (3) make no representations or warranty, either expressed or implied, with respect to the completeness or accuracy of the information contained in the Prospectus; and
 - (4) disclaim liability to any person in respect of any statement included in or omitted from the Prospectus.

5 Disclosure of Interest

- 5.1 NRFSA will be paid normal and usual professional fees for the preparation of this Report and related matters. Other than in respect of its professional fees, NRFSA and its partners have no interest in the promotion of the Company.

6 Benefit

- 6.1 This Report has been provided solely for the benefit of the Company and its directors in connection with the disclosure obligations associated with the IPO and associated listing of the Company on the ASX. This Report may not (in whole or in part) be used, referred to in or relied upon for any other purpose, without the express written consent of NRFSA, except that reference may be made to this Report in any documentation reasonably required for the purpose of the IPO (including the Prospectus) and the associated listing of the Company on the ASX.
- 6.2 This Report is strictly limited to the matters stated in it and does not apply by implication other matters.

Yours faithfully

Executed Electronically

Lizel Oberholzer
Director
Norton Rose Fulbright South Africa Inc

A. SCHEDULE OF TENEMENTS: TETRA4 (PTY) LTD:

Disclaimer: The Schedule has been prepared in accordance with the Loxton Interpretation of the granting and duration of mineral and petroleum rights, in accordance with Tetra4's election to rely on the Loxton Opinion. Please refer to paragraph 4 in the GENERAL LEGISLATIVE INFORMATION section for more information.

Tenement	Registration and Reference Number	Province and District	Status	Period	Participating Interest	Date of execution of deed / Commencement of current period	Date of Expiry of current period	Comments
Production Right								
Production Right in respect of certain areas in the districts of Venterburg, Welkom, Odendaalsrus in the Free State Province	PASA Reference No: 12/3/1/07/2/2 PR MPTRO Registration No: 25/2013	Free State Province, districts of Venterburg, Welkom, Odendaalsrus	Active	Initial Period	Tetra4 (Pty) Ltd: 100%	20 September 2012	19 September 2042	Refer to Note 0 Refer to Note 2 Refer to Note 3 Refer to Note 6

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Norton Rose Fulbright South Africa Inc (Reg No 1984/003385/21) Directors: SWM Gule (chairman) D Dinnie (chief executive officer) K Ainslie MH Alexander S Anthony LA Astfalck SH Barnett HI Bisset BE Botha GG Bouwer PA Bracher DR Breier AJ Chappel M Chavos SL Chemaly C Costas KR Cron MO Dale V David BM Denny AGS Dixon L Fine BB Harber MJ Hart MC Harwell RB Isaacs HJ Janse van Rensburg J Jones GCB Kahle DS Kapelus ZS Kathrada AP Keller SJ Kennedy-Good SS Khoza L Kok JM Kron HY Laher IS Laher REF Lake PE Lamb WP le Roux RDE Lomax LN Louw LL Magagula HL Manson EJ McCaul DL McConnell JE Midlane RA Moosa AA Moosajee PH Niehaus GA Nott L Oberholzer MJ Osborn RP Petersen M Philippides DR Pillay CJ Pretorius GM Rademeyer L Rech D Reddy V Reddy APM Robinson Y Rungasammy AP Schelhase A Singh S Sithole AK Strachan DS Tatham CK Theodosiou R Tihavani M van der Westhuizen JG van Dijk C van Vuuren AP Vos M Wagener AP Wellsted JJ Whyte LE Williams C Woolley
Consultant: PM Chronis MR Gibson RJ Holwill AP Williams

Norton Rose Fulbright South Africa Inc, Norton Rose Fulbright LLP, Norton Rose Fulbright Australia, Norton Rose Fulbright Canada LLP and Norton Rose Fulbright US LLP are separate legal entities and all of them are members of Norton Rose Fulbright Verein, a Swiss Verein. Norton Rose Fulbright Verein helps coordinate the activities of the members but does not itself provide legal services to clients. Details of each entity, with certain regulatory information, are available at nortonrosefulbright.com.

6 March 2019

Tenement	Registration and Reference Number	Province and District	Status	Period	Participating Interest	Date of execution of deed / Commencement of current period	Date of Expiry of current period	Comments
Exploration Rights								
Virginia 1 Exploration Right	PASA Reference No: 12/3/29/1A ER MPTRO Registration No: Unknown	Free State Province, Magisterial districts of Welkom and Virginia	Active	First Renewal Period Application for second renewal submitted	Tetra4 (Pty) Ltd: 100%	3 April 2017	2 April 2019	Refer to Note 4 Refer to Note 0 Refer to Note 6
Virginia 2 Exploration Right	PASA Reference No: 12/3/32/1A ER MPTRO Registration No: 09/2011	Free State Province, Magisterial districts of Ventersburg, Welkom and Odendaalsrus	Active	First Renewal Period Application for second renewal submitted	Tetra4 (Pty) Ltd: 100%	3 April 2017	2 April 2019	Refer to Note 4 Refer to Note 6 Refer to Note 7
Virginia 3 Exploration Right	PASA Reference No: 12/3/33/1A ER MPTRO Registration No: 02/2010	Free State Province, Magisterial district of Theunissen	Active	First Renewal Period Application for second renewal submitted	Tetra4 (Pty) Ltd: 100%	3 April 2017	2 April 2019	Refer to Note 4 Refer to Note 6

6 March 2019

Tenement	Registration and Reference Number	Province and District	Status	Period	Participating Interest	Date of execution of deed / Commencement of current period	Date of Expiry of current period	Comments
Virginia 5 Exploration Right	PASA Reference No: 12/3/64/1A ER MPTRO Registration No: 04/2010	Free State Province, Magisterial districts of Theunissen, Brandfort and Bultfontein	Active	First Renewal Period Application for second renewal submitted	Tetra4 (Pty) Ltd: 100%	3 April 2017	2 April 2019	Refer to Note 4 Refer to Note 6
Virginia 7 Exploration Right	PASA Reference No: 12/3/94/1A ER MPTRO Registration No: Unknown	Free State Province, Magisterial districts of Welkom, Theunissen, Ventersburg, Odendaalsrus and Winburg	Active	First Renewal Period Application for second renewal submitted	Tetra4 (Pty) Ltd: 100%	3 April 2017	2 April 2019	Refer to Note 4 Refer to Note 6
Evander 1 Exploration Right	PASA Reference No: 12/3/27/1A ER MPTRO Registration No: Unknown	Mpumalanga Province, Magisterial district of Evander	Expired	First Renewal Period	Tetra4 (Pty) Ltd: 100%	11 September 2014	10 September 2016	Refer to Note 4 Refer to Note 8

6 March 2019

Tenement	Registration and Reference Number	Province and District	Status	Period	Participating Interest	Date of execution of deed / Commencement of current period	Date of Expiry of current period	Comments
Evander 2 Exploration Right	PASA Reference No: 12/3/31/1A ER MPTRO Registration No: Unknown	Mpumalanga Province, Magisterial district of Evander	Active	Initial Period	Tetra4 (Pty) Ltd: 100%	8 May 2007	Suspended pending resolution of appeal	Refer to Note 4 Refer to Note 9

6 March 2019

Tenement	Registration and Reference Number	Province and District	Status	Period	Participating Interest	Date of execution of deed / Commencement of current period	Date of Expiry of current period	Comments
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Technical Co-operation Permits

Evander 1 TCP		Mpumalanga Province, Magisterial district of Evander	Application	Application lodged 28/02/18	Tetra4 (Pty) Ltd: 100%	N/A	N/A	Refer to Note 10
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B. GENERAL LEGISLATIVE INFORMATION:

1 **MPRDA Overview**

- 1.1 Section 3 of the MPRDA provides that all mineral and petroleum resources in South Africa are owned by the South African State on behalf of the people of South Africa. As custodian of the nation's resources, the State, acting through the Minister of Mineral Resources (**Minister**) may grant, issue, refuse, control, administer and manage any permit, permission or right in respect of any mineral and petroleum resource in the country.
- 1.2 All rights, permits and permissions in respect of activities relating to the exploration for, extraction of mineral and petroleum resources in South Africa are subject to standard terms and conditions (in accordance with the type of Tenement) as provided for in the MPRDA and the Mineral and Petroleum Resources Development Regulations (**Regulations**).
- 1.3 Additionally, the Regulations provide for further terms and conditions applicable to Exploration and Production Rights granted in terms of the MPRDA as approved by the Minister on a case by case basis.
- 1.4 We provide a brief description of the general terms applicable to the relevant types of petroleum rights below, as well as the key terms and conditions imposed on the Tenements.

2 **Technical Co-operation Permits**

- 2.1 A Technical Co-operation Permit (**TCP**) is issued for the purpose of conducting preliminary exploratory activities for petroleum in a specified area within South Africa (such as conducting geological, geochemical and geophysical studies). Once granted, a TCP provides the holder with the exclusive right to:
 - (1) carry out a technical co-operation study in accordance with the technical co-operation work programme; and
 - (2) apply for and be granted (subject to satisfying prescribed application requirements) an Exploration Right in respect of the petroleum and the area over which the TCP has been granted.²
- 2.2 A TCP is granted for a non-renewable and non-transferable duration of 1 year, is subject to minimal terms and conditions as prescribed in the Regulations.

3 **Exploration and Production Rights**

- 3.1 An Exploration or Production Right is issued for the purpose of exploring for and producing petroleum³ in a specified area within South Africa.
- 3.2 An Exploration or Production Right is valid upon granting, however only becomes a limited real right (opposed to a personal right) upon the registration of the right with the Mineral and Petroleum Titles Registration Office (**MPTRO**) in terms of the Mining Titles Registration Act⁴ (**MTRA**). Until registered, the holder of the right will have to rely on the common law principle that an unregistered right is

² Section 78(1) of the MPRDA

³ Section 1 of the MPRDA – "Petroleum" means any liquid, solid hydrocarbon or combustible gas existing in a natural condition in the earth's crust and includes any such liquid or solid hydrocarbon or combustible gas, which gas has in any manner been returned to such natural condition, but does not include coal, bituminous shale or other stratified deposits from which oil can be obtained by destructive distillation or gas arising from a marsh or other surface deposit

⁴ 16 of 1967

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binding on third parties that have knowledge thereof, but will not be able to enforce the right against a third party successor in title who genuinely lacks knowledge of the right.⁵

3.3 Once granted, an Exploration or Production Right provides the holder with the exclusive right to:

- (1) enter the land to which such right relates together with his or her employees, and bring onto that land any plant, machinery or equipment and build, construct or lay down any surface, underground or under sea infrastructure which may be required for the purpose of exploration or production (as the case may be);⁶
- (2) explore or produce (as the case may be), for his or her own account, on or under that land for the mineral or petroleum for which such right has been granted;⁷
- (3) remove and dispose of any such petroleum found during the course of exploration as the case may be;⁸ and
- (4) carry out any other activity incidental to exploration or production operations, which activity does not contravene the provisions of the MPRDA;⁹
- (5) (in respect of an Exploration Right) apply for and be granted (subject to satisfying prescribed application requirements) a Production Right in respect of the petroleum and the area over which the Exploration Right has been granted;¹⁰
- (6) To apply for and be granted (subject to satisfying prescribed application requirements) the renewal of the Exploration or Production Right;¹¹ and
- (7) (subject to the satisfaction of the prescribed requirements in the MPRDA) transfer and encumber the Exploration or Production Right.

3.4 An Exploration Right may be granted for an initial period not exceeding 3 years, which may be renewed by the holder on application to the Minister for 3 further periods not exceeding 2 years each.¹² At each renewal of an Exploration Right, the holders are generally required to relinquish a portion of the area over which the right is held.

3.5 A Production Right is granted for an initial period of 30 years, which may be renewed by the holder on application to the Minister, each renewal for a further period of 30 years.¹³

3.6 The MPRDA requires holders of an Exploration or Production Right to comply with the certain prescribed conditions. The holder must:

- (1) continuously and actively conduct exploration or production operations (as the case may be) in accordance with the approved exploration or production work programme;¹⁴
- (2) commence exploration or production activities within 90 days (in respect of exploration activities) and 1 year (in respect of production activities) from the date of execution of the exploration or production right;¹⁵
- (3) comply with the conditions of the approved environmental management programme;¹⁶

⁵ *Manganese Corporation Ltd v South African Manganese Ltd*, 1964(2) SA 185 (W)

⁶ Section 5 of the MPRDA

⁷ Section 5 of the MPRDA

⁸ Section 5 of the MPRDA

⁹ Section 5 of the MPRDA

¹⁰ Section 82 of the MPRDA

¹¹ Section 82(1)(b) and Section 86(1)(a) of the MPRDA

¹² Section 82(1)(b) and Section 84(5) of the MPRDA

¹³ Section 84(4) and Section 85(4) of the MPRDA

¹⁴ Section 82(2)(b) and Section 86(2)(b) of the MPRDA

¹⁵ Section 82(2)(f) and Section 86(2)(f) of the MPRDA

¹⁶ Section 82(2)(d) and Section 86(2)(d) of the MPRDA. In terms of section 24 of the National Environmental Management Act, 107 of 1998 (**NEMA**), an applicant for an Exploration Right is required to apply for an Environmental Authorisation from the Minister of Mineral Resources in respect of the Exploration Activities to be carried out pursuant to the Exploration work programme. An application for Environmental Authorisation requires the submission of an Environmental Management Programme in respect of the Exploration Activities.

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- (4) pay state royalties in terms of the Mineral and Petroleum Resources Royalty Act, 28 of 2002 (the MPRRA);¹⁷ and
 - (5) comply with the terms and conditions of the Exploration or Production Right, the relevant provisions of the Act and any other law.¹⁸
- 3.7 Additionally, it is customary for Exploration and Production Rights to be granted subject to the following conditions imposed by the Minister:
 - (1) the holder may be required to ensure that the financial provision made for environmental rehabilitation in terms of NEMA read with the National Environmental Management Act: Financial Provisioning Regulations is annually assessed and increased as necessary;
 - (2) the holder may be required to identify a suitable partner who is a Historically Disadvantaged South African¹⁹ to take up a participating interest in the Exploration Right;
 - (3) the holder may be required to give preference in employment, procurement and sub-contracting arrangements to Historically Disadvantaged South Africans;
 - (4) the holder may be required to provide the State with an option to acquire a 10% participating interest in any Production Right granted in respect of the exploration area;
 - (5) the holder is usually required to implement programmes for the training and skills development of South Africans and for the social upliftment of communities in the vicinity of the Exploration or Production Activities;²⁰ and
 - (6) the holder is usually required to contribute to the Upstream Training Trust.²¹
- 3.8 The MPRDA gives the Minister of Mineral Resources the authority to cancel or suspend any right granted in terms of the MPRDA in the event that the holder:
 - (1) conducts any operation in contravention of the MPRDA;
 - (2) breaches any material term or condition of the right;
 - (3) contravenes any environmental authorisation; or
 - (4) has submitted inaccurate, incorrect or misleading information in connection with any matter regulated by the MPRDA²².
- 4 **Calculation of the period of an Exploration or Production Right**
 - 4.1 Any right or permit granted under the MPRDA (including Exploration and Production Rights) is valid only for the stated period of validity applicable to the right. While the period of validity can be extended through application for renewal, such application must be made prior to the expiry of the relevant period of validity.²³
 - 4.2 It is therefore of utmost importance to ensure that the period of validity of an Exploration or Production Right is correctly calculated.
 - 4.3 In a decision by the Supreme Court of Appeal of South Africa in *Minister of Mineral Resources and Others v Mawetse (SA) Mining Corporation (Mawetse)*, it has been confirmed that it is a general

¹⁷ Section 82(2)(e) and Section 86(2)(e) of the MPRDA

¹⁸ Section 82(2)(d) and Section 82(2)(d) of the MPRDA

¹⁹ As defined at section 1 of the MPRDA

²⁰ With respect to Production Rights, it is required that a Social and Labour Plan is attached to the Right setting out such proposed activities.

²¹ The Upstream Training Trust is a non-profit trust which creates opportunities for training and development funded through collaboration between government and private industry

²² Section 47 of the MPRDA

²³ Section 81(5) and 85(5) of the MPRDA provide that once lodged, an application for renewal of a right will prevent the right from expiring at the expiry date, even if the application is only granted after the expiry date. The right will remain in force until the application for the exploration right has been granted or refused

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principle in South African law that the duration of a right granted under the MPRDA is calculated with reference to the date that the approval of the application is communicated to the applicant.

- 4.4 This implies that ordinarily, an Exploration or Production Right should be regarded as having commenced its period of validity from the date on which its granting is communicated to the holder (ie the date of the granting letter). This is true even though the rights and obligations attached to Exploration or Production Right only come into effect on the date on which the deed of Exploration or Production is executed.
- 4.5 Since the *Mawetse* decision, Senior Counsel Advocate Chris Loxton was mandated by the Offshore Petroleum Association of South Africa (**OPASA**)²⁴ to prepare a legal opinion considering the effect of the *Mawetse* decision on Exploration and Production Rights granted under the MPRDA (**Loxton Opinion**). The Loxton Opinion found that, notwithstanding the general principle established in *Mawetse*, the Minister of Mineral Resources may make provision, when granting a right, for the period of validity of a right to commence on a date after the granting date (such as the date of execution of the applicable deed). This view is referred to as the **Loxton Interpretation** in this opinion.
- 4.6 In reliance on the Loxton Interpretation, certain holders of rights granted in terms of the MPRDA have included wording in Exploration or Production Right deeds indicating that their period of validity is to be calculated from the date of execution thereof. The Loxton Interpretation has not been tested in court,²⁵ however this approach has been accepted by the Petroleum Agency of South Africa (**PASA**)²⁶ and is regarded as acceptable practice in the industry.

C. NOTES TO THE SCHEDULE OF TENEMENTS:

RELATING TO THE PRODUCTION RIGHT

- 1 The Production Right identified in the Tenement Schedule above (**Production Right**) was granted subject to the following conditions (*inter alia*):
 - 1.1 that the Holder offer to sell, at fair market value, up to 10% of its Participating Interest or its equity to either a suitable historically disadvantaged person or to any state owned company within 90 days of the execution of the production right deed; and
 - 1.2 that the State has the option, exercisable within 90 days of the approval by PASA of the offer by the holder to sell a participating interest to a suitable historically disadvantaged person or State Owned Company, to acquire up to 10% of the holder's participating interest in the Production Right.
 - 1.3 It is our opinion is that Tetra4 has complied with these conditions.
- 2 The National Water Act²⁷ (**NWA**) provides that certain specified water uses require that an application must be made to the Department of Water Affairs and Sanitation for a water use licence. The Cluster 1 expansion activities, which Tetra4 intends to conduct as part of its production activities approved under the Production Right, involve regulated water uses to which the NWA applies.
 - 2.1 A water use licence (**WUL**) has been issued to Tetra4 in respect of section 21(c) and (i) water uses associated with the Cluster 1 extension project. Tetra 4 must ensure compliance with the relevant conditions imposed in terms of the WUL within the prescribed time limits.
- 3 The Production Right is granted subject to compliance with the approved Environmental Management Programme (**EMPR**), which was initially approved in 2010. The EMPR does not make provision for the Cluster 1 expansion activities which Tetra4 intends to conduct. Section 102 of the MPRDA requires a holder of a production right to obtain the consent of the Minister of Mineral Resources prior to amending any approved EMPR.

²⁴ OPASA is a collaborative industry association comprised of holders of offshore petroleum exploration and production rights.

²⁵ As a result NRFS cannot confirm the view expressed in the Loxton Opinion as it is only a legal opinion and has not been tested by a court of law.

²⁶ PASA is the state institution mandated to administer the granting of rights and licences for the petroleum industry
²⁷ 36 of 1998

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- 3.1 Tetra4 was subsequently issued with an environmental authorisation for the development of Cluster 1 on the 29 September 2017 (**2017 EMPR**). In terms of this environmental authorisation, the 2017 EMPR in respect of Cluster 1 was approved.
- 3.2 We have been advised by Tetra 4 that they are pursuing 2 separate amendment applications in respect of the environmental authorisation and 2017 EMPR for Cluster 1. Until such time as these amendment applications are granted, the original conditions of the environmental authorisation and 2017 EMPR will apply and must be complied with.

RELATING TO THE EXPLORATION RIGHTS

- 4 Each Exploration Right held by Tetra4 was granted subject to the condition that the State be granted 10% of the participating interest in any corresponding production right in respect of any portion of the area subject to the exploration right upon the date of granting of such production right.
- 5 It is not clear whether the exploration deed and renewal deed for the Virginia 1 Exploration Right (registration number 12/3/29 ER) have been successfully registered at the MPTR0 in terms of the MTRA.
 - 5.1 This will not invalidate the right, nor will it prevent the holder to apply for the renewal of the right, but it may prevent the registration of any subsequent deed until resolved (including the renewal).
- 6 Applications for the renewal of each of the Virginia 1²⁸, 2²⁹, 3³⁰, 5³¹ and 7³² Exploration Rights and the Production Right have been executed and submitted in accordance with the Loxton Interpretation.
- 7 The deed of renewal of the Virginia 2 Exploration Right has not been registered at the MPTR0 in accordance with the MTRA. This is due to the fact that certain farms over which the right applies have been consolidated, resulting in a discrepancy in the exploration area between the original deed of exploration and the deed of renewal.
 - 7.1 The MPTR0 requested the surveyor who drew up the plans submitted with the renewal application to prepare updated plans to resolve this discrepancy. The revised plans together with the deed of renewal and the principal right were submitted to MPTR0 on 14 February 2019.
- 8 The exploration deed for the Evander 1 Exploration Right was executed on 8 May 2007, and (in accordance with the Loxton Interpretation) would have expired on 7 May 2010 unless renewed. An application for the renewal of Evander 1 Exploration Right was submitted on 7 May 2010, and was granted on 11 September 2014.
 - 8.1 On 1 December 2014, BHP Billiton submitted an appeal of the granting of the Evander 1 and Evander 2 Exploration Rights in terms of section 96 of the MPRDA. The MPRDA provides that an appeal in terms of section 96 does not suspend the granting of the right, but only subsequent applications in respect of that right.
 - 8.2 The appeal has had the effect of suspending any subsequent applications relating to the Evander 1 Exploration Right, but has not suspended the renewal thereof (as the appeal was made only after the granting of the renewal on 11 September 2014). As the deed of renewal in respect of the Evander 1 Exploration Right has not been executed, it is not possible to apply the Loxton Interpretation in calculating the period of validity of the Evander 1 Renewal Period.
 - 8.3 As such, the Mawetse principle applies and the Evander 1 Renewal Period begun on 11 September 2014 (being the date of the granting letter), and expired on 10 September 2016 as no subsequent renewal application was submitted.

²⁸ registration number 12/3/29 ER

²⁹ registration number 12/3/32 ER

³⁰ registration number 12/3/33 ER

³¹ registration number 12/3/64 ER

³² registration number 12/3/94 ER

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- 8.4 Tetra4 has submitted a TCP in respect of the Evander 1 exploration area in order to prevent a third party from applying for a right in respect of the area. In the event that it proves impossible to resurrect the Evander 1 Exploration Right, the TCP can be converted to a new exploration right over the same area.³³
- 9 The exploration deed for the Evander 2 Exploration Right was executed on 8 May 2007, and (in accordance with the Loxton Interpretation) would have expired on 7 May 2010 unless renewed. An application for the renewal of Evander 2 Exploration Right was submitted on 7 May 2010.
- 9.1 On 1 December 2014, BHP Billiton submitted an appeal against the granting of the Evander 1 and Evander 2 Exploration Rights in terms of section 96 of the MPRDA. The MPRDA provides that an appeal in terms of section 96 does not suspend the granting of the right, but only subsequent applications in respect of that right.
- 9.2 The appeal has had the effect of suspending any subsequent applications relating to the Evander 2 Exploration Right, including the renewal thereof (as the renewal application was yet to be granted at the date on which the appeal was submitted).
- 10 The application for a TCP in respect of the Evander 1 exploration area was submitted on 28 February 2018.

³³ See paragraph 2.1(2) above.
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7. RISK FACTORS

7.1. Introduction

This Section 7 describes potential risks associated with Renergen's business and an investment in CDIs. It should be read together with (and does not repeat) Section 1.4, which contains a summary of the risks Renergen assesses as most relevant to its business. These Sections do not list every risk that may be associated with Renergen and the occurrence or consequences of some of the risks described are partially or completely outside the control of Renergen and its Directors and management.

The selection of risks has been based on an assessment of a combination of the probability of the risk occurring and the impact of the risk if it did occur. The assessment is based on the knowledge of the Directors as at the Prospectus Date. The risks may change, or other risks may emerge after that date.

Before applying for CDIs, you should be satisfied that you have a sufficient understanding of the risks involved in making an investment in Renergen and whether it is a suitable investment, having regard to your investment objectives, financial circumstances and taxation position.

Prospective investors should be aware that the risks outlined in Section 1.4 and this Section 7 should be considered in conjunction with the other information disclosed in this Prospectus. There can be no guarantee that Renergen will achieve its stated objectives or that any forward-looking statements contained in this Prospectus will be realised or otherwise eventuate.

7.2. Specific Risks

The business activities of the Company are subject to a number of risks and uncertainties that could affect the Company and the industry in which it operates. If such risks are realised, these factors may substantially impact Company's future financial performance and/or financial position. The Directors have identified a number of specific risks related to the Company's business that should be taken into account before investors make an investment decision, including primarily the risks set out in Section 1.4, and also the following risks:

Mining and Exploration Risk

The business of mineral exploration, development and production is subject to risk by its nature. The success of the business depends, amongst other things, on successful exploration and/or acquisition of reserves, securing and maintaining title to tenements and consents, successful design, construction, commissioning and operating of mining and processing facilities, successful development and production in accordance with forecasts and successful management of the operations.

Exploration and mining are speculative undertakings which may be hampered by force majeure circumstances, land claims and unforeseen mining problems. Increased costs, lower output or high operating costs may all contribute to make a project less profitable than expected at the time of the development decision. There is no assurance that the Company's planned mining activities and attempts to exploit its planned exploration activities will be successful.

Reliance on key staff

Renergen is reliant on the capabilities of a number of its key employees who have extensive experience in, and knowledge of, Renergen's assets, its business and customers, and the market in which it operates. The loss of one or more of its key employees and any delay in their replacement may adversely impact the ability of Renergen to implement and expand its business and growth strategies. There can be no assurance that Renergen will be able to retain members of its key employees or, in the event that their employment is terminated, be able to replace them in a timely manner with qualified individuals who have the necessary skills and expertise. This could have a material adverse impact on Renergen's business, operating or financial performance.

The Company's success depends in part on the Directors being able to identify potential investment and/or acquisition opportunities, and to implement the Company's business strategy. The loss of the services of any of the Directors could materially and adversely affect the Company.

In addition, although the Company and the Directors will evaluate the risks inherent in a particular investment, they cannot offer any assurance that a proper discovery, or a complete assessment of all significant risk factors associated with the investment, can be made.

Health and Safety

Renergen's mining project is subject to a variety of South African industry-specific health and safety laws and regulations which are formulated to improve and protect the health and safety of employees and contractors. Exploration, mining and processing operations have inherent risks and liabilities associated with the health and safety of employees, contractors and impacted communities. This exposure is primarily due to a range of risky activities which form part of the Company's operations including, but not limited to, the use of heavy equipment, working in conditions subject to ground failure or at height or in confined spaces, lifting objects and the handling of hazardous materials, explosives and hazardous waste.

While the Company has implemented training and management strategies on site to ensure and improve the health and safety culture of local workers, the occurrence of any industrial accidents, workplace injuries or fatalities would likely result in workers' compensation claims, related common law claims and potential occupational health and safety prosecutions. This could lead to, amongst other things, a temporary shutdown of all or a portion of the mine or relevant facility, a loss of the right to operate the relevant facility, the imposition of costly compliance procedures and fines, or serious reputational damage to Renergen. The Company intends to conduct its activities in a responsible manner and in accordance with applicable health and safety laws and industry standards.

Estimation of Mineral Resources

Resource estimates are stated to the PRMS standard as approved by the Society of Petroleum Engineers and SAMOG Code (the South African Code for the Reporting of Oil and Gas Resources) and are expressions of judgement based on knowledge, experience and industry practice. The resource estimates contained in this Prospectus are also consistent with the definitions of hydrocarbon reserves and resources as defined in the ASX Listing Rules and are classified in accordance with the Petroleum Resources Management System (2007) and Guidelines for the Application of Petroleum Resources Management System (2011) as approved by the Society of Petroleum Engineers. Often these estimates were appropriate when made, but may change significantly when new information becomes available.

Resource estimates are imprecise and depend to some extent on interpretations, which may ultimately prove to be inaccurate and require adjustment. Adjustment to resources and reserves could affect the Company's development and mining plans.

Actual helium and methane reserves and resources may be materially different from estimated reserves and resources as estimations are based on various assumptions such as geological conditions:

- ☐ production from the mining area compared with production from other producing areas;
- ☐ the effects of regulations, including environmental, health and safety regulations and taxes;
- ☐ future helium and natural gas prices; and
- ☐ future operating costs.

Any of the above factors can materially change estimated reserves and resources, which may therefore require an estimation based upon actual production experience, operating costs, coal prices, and other factors. Determinations of resources or reserves that appear valid when made may change significantly when new information becomes available.

Future financing

The operating and financial performance of Renergen and its ability to grow is partly reliant on its ability to source sufficient capital.

Renergen may require further funding for any plants beyond the New Plant that will be constructed. In addition, if the actual costs of construction and operation of the New Plant exceed management estimates, Renergen may be required to source additional capital. There is a risk that Renergen may not be able to access additional capital from debt or equity markets for the New Plant or for further expansion, or may only be able to do so on unattractive terms. The inability to access required capital could have a material adverse impact on Renergen's business and financial condition. Any future financing may include equity financing, and any future equity financing will have a dilutive effect on Shareholders at the time.

Failure to protect intellectual property rights

Renergen relies on its intellectual property rights and there is a risk that Renergen may fail to protect its rights for a number of reasons. Renergen has historically used a mixture of legal methods (such as confidentiality agreements and employment contracts) and technical methods to protect its intellectual property.

Renergen's failure to protect its intellectual property rights could have an adverse impact on its business, operating or financial performance.

Any failure to protect or comply with intellectual property rights could have a material adverse effect on Renergen's business, operating or financial performance.

Competition

Although Tetra4 holds the only onshore petroleum production right in South Africa at the Prospectus Date, this is likely to change as more production rights are granted, thus increasing competition for supply LNG. The South African government also proposes various initiatives to import LNG, which will increase LNG supply in South Africa and may adversely affect profit margins for Renergen.

Counterparty risk

As a party to numerous material contracts (refer to Section 12 for further details), the Company and Tetra4 will have various contractual rights in the event of non-compliance by any third parties, such as customers, suppliers, contractors and other counterparties who may not be willing or able to perform their obligations. If one or more key counterparties default on their obligations, then there is no assurance that the relevant obligations will be fully performed. In addition, such non-compliance could have an adverse effect on Renergen's future financial performance and position. It may also affect Renergen's ability to complete the construction of the New Plant in the expected timeframe. Renergen's insurance may be inadequate to cover any losses Renergen would sustain in such instance, and in the event of an uninsured loss or a loss in excess of Renergen's insured limits could lead to Renergen suffering damage and could adversely affect Renergen's business, financial condition and results of operations.

Limited trading history

Renergen is an early-stage company with limited trading history. Given Renergen's limited trading history, it is difficult to make an evaluation of its business or prospects. Therefore, no assurance can be given that Renergen will achieve its growth objectives or deliver the expected returns or ultimately be profitable.

The information surrounding the business model of Renergen as set out in Section 2 represents Renergen's current plans and strategies for the growth of its business. Renergen's ability to achieve its objectives depends on the ability of the management team to implement the proposed business plan and to respond in a timely manner to any unforeseen circumstances. Any failure could have a material adverse impact on Renergen's business, operating or financial performance.

Repayment of borrowings

Tetra4 has committed debt funding of US\$40 million (or about \$56.3 million) from OPIC. Details of the committed facility are set out in Section 12.2.

If drawn down, there can be no guarantee that Tetra4 or the Company will be able to repay these borrowings from cash generated from operations, new borrowings, the issue of new shares or a combination of these sources of finance.

Litigation

Renergen may be subject to litigation and other claims and disputes in the course of its business, including employment disputes, contractual disputes, indemnity claims and occupational and personal claims. Such litigation, claims and disputes, including the costs of settling claims and operational impacts, could cause the Company to incur unforeseen loss, costs or expenses (including loss, cost or expense that is not covered by insurance policies), could occupy a significant amount of management's time and attention and materially adversely affect Renergen's business, operating and financial performance. In addition, even if Renergen was to ultimately prevail in any such litigation, claim or dispute, it could suffer reputational damage, which could have an adverse effect on Renergen's business, operating or financial performance.

Dividend Policy – No Guarantee of Dividends

The Company's dividend policy will be to invest all cash flow into the Tetra4 business, at least until such time as it becomes profitable and cash flow positive.

Accordingly, no dividends will be payable for the foreseeable future following the Company's Listing on ASX and an investor's ability to achieve a return on their investment in Renergen will therefore depend on an appreciation in the market price of the CDIs. In the long term, the payment and amount of any potential future dividends declared by Renergen are subject to the discretion of the Board and will depend upon, among other things, the applicable provisions of South African company law, the Company's earnings, financial position, tax position, capital requirements, general economic conditions and other factors the Board deem significant from time to time.

Under the Companies Act, a company can only pay dividends to the extent that its directors are satisfied it meets the "solvency and liquidity test" in that Act. In addition, given the Company's earnings are generated outside Australia, any future dividends will not be franked and are subject to South African dividends tax. A Double Taxation Agreement exists between South Africa and Australia, which may reduce the amount of dividends tax payable by Australian resident Shareholders.

7.3. General Risks Related to the Offer

Liquidity risk

The CDIs issued under the Offer will be listed on ASX and will, at that time, only represent between 5.9% (Minimum Subscription) and 11.1% (assuming that over subscriptions of \$5 million are accepted) of the Company's issued share capital. The remaining 94.1% (Minimum Subscription) reducing to 88.9% (assuming that over subscriptions of \$5 million are accepted) of the Shares will be traded on AltX. As such, there can be no guarantee that an active market in the CDIs issued under the Offer will develop or continue, or that the market price of the CDIs will increase. If a market does not develop or is not sustained, it may be difficult for investors to sell their CDIs.

Furthermore, the market price for CDIs may fall or be made more volatile because of the relatively low volume of trading in Renergen's securities. When trading volume is low, significant price movement can be caused by trading in a relatively small number of CDIs. If illiquidity arises, there is a real risk that Shareholders will be unable to realise their investment in the Company.

Price of CDIs

The price at which CDIs are quoted on ASX may increase or decrease due to a number of factors. These factors may cause the CDIs to trade at prices below the Offer Price. There is no assurance that the price of the CDIs will increase following the quotation on ASX, even if Renergen's earnings increase.

Some of the factors which may affect the price of the CDIs include:

- ☐ fluctuations in the domestic and international market for listed shares;
- ☐ general economic conditions, including interest rates, inflation rates, exchange rates, commodity and oil prices;
- ☐ changes to government fiscal, monetary or regulatory, policies, legislation or regulation;
- ☐ inclusion in or removal from market indices;
- ☐ the nature of the markets in which Renergen operates; or
- ☐ general operational and business risks.

Other factors which may negatively affect investor sentiment and influence Renergen specifically or stock markets more generally include acts of terrorism, an outbreak of international hostilities, labour strikes, civil wars, natural disasters or other man-made or natural events.

Economic and government risks

The future viability of the Company is also dependent on a number of other factors affecting performance of all industries and not just the mining industry including, but not limited to, the following:

- ☐ general economic conditions in jurisdictions in which the Company operates;
- ☐ changes in government policies, taxation and other laws in jurisdictions in which the Company operates;
- ☐ the strength of the equity markets in Australia, South Africa and throughout the world, and in particular investor sentiment towards the mining sector;
- ☐ movement in, or outlook on, interest rates and inflation rates in jurisdictions in which the Company operates; and
- ☐ natural disasters, social upheaval or war in jurisdictions in which the Company operates.

Taxation

The acquisition and disposal of CDIs will have tax consequences, which will differ depending on the individual financial affairs of each investor.

Further, changes in tax law, or changes in the way taxation laws are interpreted may impact the tax liabilities of the Company or the tax treatment of an investor's investment. In particular, both the level and basis of taxation may change.

To the maximum extent permitted by law, the Company, its officers and each of their respective advisers accept no liability and responsibility with respect to the taxation consequences of applying for CDIs under this Prospectus.

Foreign exchange risks

Renergen's revenues in South Africa are linked to the US dollar whilst costs and expenses are incurred in South African Rand. As a result of the use of these different currencies, the Company is subject to foreign currency fluctuations which may materially affect its financial position and operating results. For example, a depreciation of the US dollar relative to the Rand may result in lower than anticipated revenue and earnings, as a result of the translation of the US dollar earnings into Rand.

The CDIs will be listed on ASX and priced in Australian dollars. However, the Company's reporting currency is Rand. As a result, movements in foreign exchange rates may cause the price of the Company's securities to fluctuate for reasons unrelated to the Company's financial condition or performance and may result in a discrepancy between the Company's actual results of operations and investors' expectations of returns on securities expressed in Australian dollars.

In addition, if a dividend is paid by the Company in the future, this dividend will be denominated in Rand. As such, an investor whose principal currency is not Rand will be exposed to foreign currency exchange rate risk.

The Company does not currently undertake foreign currency hedging to mitigate potential foreign currency exposure, but may do so in the future. The Board cannot predict the effect of exchange rate fluctuation upon future operating results and there can be no assurance that exchange rate fluctuations will not have a material adverse effect on the business, operating results or financial condition of the Company.

Greenhouse gas emissions – existing and proposed legislation

Many participants in the oil and gas sector are subject to current and planned legislation in relation to the emission of carbon dioxide, methane, nitrous oxide and other so called "greenhouse gases". Failure by the operator of any investments of the Company to comply with existing legislation or any future legislation could adversely affect the Company's profitability. Future legislative initiatives designed to reduce the consumption of hydrocarbons could also have an impact on the ability to market the oil and gas produced from the Company's investments and/or the prices which can be obtained from them. These factors could have a material adverse effect on the Company's business, results of operations, financial condition or prospects.

Technological developments

The operators of Tetra4, the operators of any other oil and gas licences in which the Company is a participant or may become a participant in the future or the Company itself may not be able to keep pace with technological developments in the oil and gas industry. The oil industry is characterised by rapid and significant technological advancements and introductions of new products and services using new technologies. As others use or develop new technologies, the Company may be placed at a competitive disadvantage, and competitive pressures may force the operators of the Company's investments to implement those new technologies at substantial cost. In addition, other oil and gas companies may have greater financial, technical and personnel resources that allow them to enjoy technological advantages and may in the future allow them to implement new technologies before the operators can. The operators may not be able to respond to these competitive pressures and implement new technologies on a timely basis or at an acceptable cost. If one or more of the technologies the operators use now or in the future were to become obsolete or if the operators are unable to use the most advanced commercially available technology, the Company's business, financial condition and results of operations could be materially and adversely affected as a participant in the fields operated by these operators.

8. BOARD, SENIOR MANAGEMENT & CORPORATE GOVERNANCE

8.1. Board of Directors

The Directors bring relevant experience and skills to the Board, including industry and business knowledge, financial management and corporate governance experience. The following table provides information regarding the Directors and Company Secretary, including their ages, positions and nationality:

Name	Age	Position	Date appointed to Board		Nationality
Brett Kimber	58	Non-Executive Chairman, Independent	17 June 2015	23 Magwa Crescent, Waterfall City, 2090	South African
Stefano Marani	41	Managing Director, Chief Executive Officer	20 November 2014	1 Bompas Road, Dunkeld West, 2196	South African
Fulufhedzani (Fulu) Ravele	32	Executive Director, Chief Financial Officer	25 November 2015	1 Bompas Road, Dunkeld West, 2196	South African
Nick Mitchell	40	Executive Director, Chief Operating Officer	25 November 2015	1 Bompas Road, Dunkeld West, 2196	South African
Dr David King	73	Proposed Non-Executive Director, Independent to be appointed as a Director on the date of Listing on ASX	Date of Listing on ASX	Level 2, 7 Bridge St, Sydney NSW 2000	Australian
Mbali Swana	62	Non-Executive Director, Independent	16 February 2015	Kingston House Bryanston 2146	South African
Luigi Matteucci	65	Non-Executive Director, Independent	3 May 2016	Pretoria, 0081	South African
Dr Bane Maleke	69	Non-Executive Director, Independent	7 December 2016	25 Die Uitsig Pad, Eldoraigue 3 Centurion, 0157	South African
Francois Olivier	48	Non-Executive Director	19 November 2018	Sandton	

Mr Brett Kimber

Non-Executive Chairman, Independent

Qualifications: BSc Hons Mineral Economics; BSc Hons Geochemistry

Brett is currently the CEO of Eazi Access Rental Pty Ltd. He stepped down as Managing Director of African Oxygen Limited in January 2015 after a twenty-five-year career in the broader Linde Group across Asia, the US and South Africa.

He graduated with a BSc Hons Geochemistry in 1987 and joined Anglo American in 1988 as a senior research geologist before joining the then BOC Group (now The Linde Group) in 1990 where he served in various capacities.

Mr Stefano Marani

Managing Director and Chief Executive Officer

Qualifications: BSc Actuarial Science; BSc Hons in Advanced Mathematics of Finance

Stefano is the Chief Executive Officer of Renergen and its subsidiary Tetra4. He was part of the team which acquired Tetra4 from Molopo Energy Limited in October 2013 and has been involved with the company in a management role since October 2013.

Stefano has significant experience in the areas of structured finance and advisory. After completing his formative training with Deutsche Bank, Stefano was recruited by Morgan Stanley in London, where he was ultimately charged with building their sub-Saharan African fixed income capital markets business, before starting his own business in 2009.

Ms Fulufhedzani (Fulu) Ravele**Executive Director and Chief Financial Officer**

Qualifications: B Comm Financial Accounting; Postgraduate Diploma in Accounting; CA(SA), Applied Financial Management (Wits Business School), CIMA Adv Dip MA (CIMA advanced diploma in management accounting)

Fulu obtained her CA(SA) qualification with Deloitte South Africa in 2012. She has experience in financial accounting, internal and external audit. After qualifying as a CA(SA), she was seconded to Deloitte LLP Los Angeles office as an audit senior. Fulu was appointed as a management accountant at Barclays Capital South Africa in June 2013, where she focused on reporting financial results for Corporate and Investment Banking (CIB) South Africa and the rest of Africa.

Fulu joined Tetra4 as Financial Director in July 2015 and was appointed to the Board of Renergen as Renergen's full time financial director in November 2015 following the acquisition of Tetra4 by Renergen.

Mr Nick Mitchell**Executive Director and Chief Operating Officer**

Qualifications: Microsoft Certified Systems Engineer (MCSE), A+ Certified

Nick was instrumental in the acquisition of Tetra4 from Molopo Energy Limited in October 2013. He was appointed to the Board of Renergen in November 2015 following the acquisition of Tetra4 by Renergen.

Since Renergen's acquisition of Tetra4 Nick has served as COO for Renergen and Tetra4 and has worked closely with Stefano Marani (CEO) to establish the business plan, raise the requisite funding from both the equity and debt markets. He is an experienced Director with a demonstrated history of working in the energy and infrastructure sectors across Sub-Saharan Africa. He is focused on early stage company and project development and strong in operations, sales and has proficiency in IT systems.

Nick is also the current Chairman for the Onshore Petroleum Association of South Africa (ONPASA) which represents the upstream onshore petroleum industry in South Africa.

Dr David King**Proposed Non-Executive Director, Independent**

Qualifications: PhD; MSc; FAusIMM; FAICD

David is a professional geoscientist and has over 38 years' experience in oil and gas and other natural resources industries. He holds an MSc in Geophysics from Imperial College, London, and a PhD in Seismology from the Australian National University, Canberra.

After an early career in research/academia, including 2 years as Research Fellow at the Norwegian Seismic Array facility at Kjeller, he has worked in oil and gas exploration in a wide range of countries.

David has co-founded, as well as held executive and non-executive Board positions with a number of successful ASX listed oil and gas exploration companies, including Eastern Star Gas Limited, Gas2Grid Limited and Sapex Limited. He has also served as Managing Director of ASX listed gold producer North Flinders Mines, CEO of oil & gas producers Beach Petroleum and Claremont Petroleum, and Chairman of Robust Resources Ltd. David is currently Non-Executive Director of ASX listed Galilee Energy Limited and Tap Oil Ltd; Chairman of ASX listed company Cellmid Limited, and Oslo Axess listed African Petroleum Corporation Limited; and Chairman of AIM listed Litigation Capital Management Limited.

David is a Fellow at the Australian Institute of Company Directors, the Australian Institute of Geoscientists, and Australasian Institute of Mining & Metallurgy.

Mr Mbali Swana**Non-Executive Director, Independent**

Qualifications: Bas (UCT); Barch (UCT); Pr Arch (SA); MIAT (SA)

Mbali is the chief executive officer of Prop5 Corporation Proprietary Limited, a turnkey-built environment infrastructure and engineered products developer which he founded in 1986. Mbali has significant experience in implementing large scale projects across Africa and is currently developing Prop5's Africa-wide strategy for the development of infrastructure.

Mr Luigi Matteucci**Non-Executive Director, Independent****Qualifications:** CA(SA); B Com (Wits); CTA (Wits)

Luigi actively consults on strategic and business development initiatives in the mining and engineering field. He served in senior management positions and as Financial Director of Highveld Steel and Vanadium Corporation Limited for 18 years up to 2007 where he implemented successful cost reduction and efficiency strategies.

Dr Bane Maleke**Non-Executive Director, Independent****Qualifications:** BA, MBA and PhD

Bane holds an MBA from Dalhousie University (Canada) and a Ph.D. Strategic Management, from the University of Bath (UK). He spent 20 years in senior management at the Development Bank of South Africa and held the position of Regional Executive for the Southern African Development Community and East Africa Regions.

Francois Olivier**Non-Executive Director****Qualifications:** CA(SA), CFA, B.Com (Hons) University of Pretoria

Francois Olivier is a portfolio manager and executive committee member at Mazi Asset Management. He has 19 years of investment research and portfolio management experience, the first seven of which were spent in the USA.

Acorim Proprietary Limited

Company Secretary

Acorim Proprietary Limited provides a full range of company secretarial services to the Company. The Board has satisfied itself as to the competence, qualifications and experience of the Company Secretary.

8.2. Key management personnel

As at the Prospectus Date, the Company including Tetra4, has 24 full-time employees, of which 4 are in operations, 4 in engineering and project management and 16 in general and administrative functions.

A list of the Company's key management personnel is set out in Section 1.6 and their qualifications and experience are set out below (and for Directors in Section 8.1).

Mr Khalid Patel**Environmental Manager****Qualifications:** Honours degree in Geography and Environmental Science (University of Wits), Certificate of competence in project management (GIBS). Obtained his Masters Degree in Environmental Science (Wits).

Khalid has extensive experience with Environmental Assessments for the mining and energy industry, including managing large projects on behalf of clients such as Exxaro KZN Sands, Xstrata Alloys Samancor Chrome, Kumba Iron Ore and Sylvania Metals. In addition to Environmental Assessments, Khalid also has significant experience with Mineral Tenure Component, specialist review, IFC, World Bank and Equator Principles audits, Enviro-Legal Gap Analysis and the undertaking of due diligence work. Khalid acted as the environmental advisor to the Royal Bafokeng Nation for 5 years. Khalid managed the mining and energy unit at EIMS for 6 years and acted as supervising principle for all work done by the unit.

He joined Tetra4 in August 2016 as its Environmental Director. Khalid's responsibilities include ensuring environmental compliance, ongoing environmental management and detailed environmental monitoring.

Ms Mandy Stuart**Business Services Manager****Qualifications:** Certificate in Project Management (Damelin), Certified Process Professional (CPP) (IQ Business Group), currently studying towards her BBA (Milpark Business School)

Mandy is a skilled Business Services Manager with over 20 years' experience in the financial services industry. Mandy was a National Brand Manager for Investec Private Bank (SA), as well as Investec Private Bank (UK). Mandy then moved to Computershare Investor Services South Africa where she was a Project Manager, implementing upgrades, enhancements and migrations for major projects across the Computershare Investor Services Group.

Mandy subsequently was responsible for Computershare Investor Services South Africa's Employee Share Plans division, managing employee share schemes for numerous listed companies on the JSE and AltX. Mandy was also responsible for Corporate Responsibility for Computershare Investor Services South Africa. Mandy joined Renergen on 1 June 2016.

Mr Johann Weideman**Project Manager**

Qualifications: Higher National Diploma (Mechanical Engineering), Wits Technikon Government Certificate of Competency (Mechanical/Factory) Management Development Programme (UNISA).

Johann has more than 30 years' experience in the Management of a multi-Disciplinary Engineering teams, on projects including Hydrocarbons, Power and Infrastructure (for example coal, lignite, gas turbines, coal gasification, co-generation projects, turbines, common plant, control and instrumentation and electrical). He established the Pangaea Academy that specializes in developing and presenting of training material and courses aimed at project managers, engineers, cost engineers, project controls, procurement and other project support personnel.

Johann has valuable experience in management of multi-product pipe-lines as project director of pipelines, pumping stations, controls, electrical, valves, construction, procurement and contracts management. Johann has served on the board of control for numerous projects.

Mrs Nompumelelo Msimang**Engineering Process Manager**

Qualification: B Sci Chemical Engineering, Cert. Business Process Management, Program in Project Management (PPM)

Highly qualified technical expert, Nompumelelo (Mpumi) Msimang offers 15 years' experience in Process Engineering and Management at large multinational corporates within the South African Fuel industry.

Past experience includes working at companies such as Sasol Technology, Afrox and BP Southern Africa.

Mr Robert Katzke**Operations Manager**

Qualifications: NTC5 (Technical College PTA West), Instrument Mechanician (Eskom / Iscor)

Robert has over 35 years work experience working at Power generation plants, Water treatment plants and Engine Plants. Robert was the Mechanical/Electrical Engineering Foreman, SHEQ coordinator, and later the acting Mine Manager for Rustenburg Minerals. He then moved onto Caspian Mining as a project manager, coordinating the daily activities of the site. Robert joined Molopo SA in 2009 and has vast experience in liaising with Petroleum Agency of South Africa, the Democratic Republic of Congo, and Renergen's other stakeholders. Robert is responsible for the daily plant operations and staff at the plant.

Robert spent 5 years under mentorship of Australian Geologists and Geophysicists to understand methane gas behaviour and occurrence, and spent a month in Australia doing directional CBM drilling and pipe design. Robert joined Renergen on 1 October 2009.

8.3. Directors Fees

The Memorandum of Incorporation of the Company provides that Director fees (for all members of the Board including non-executive directors) are to be determined by the Board, subject to approval by the Company in a general meeting. Additionally, Directors will be entitled to be reimbursed for all expenses properly and necessarily incurred in the execution of their duties as a Director.

At present, the Board of the Company is constituted by 3 Executive Directors and 5 Non-Executive Directors. It is proposed to appoint Dr King as a Non-Executive Director on the date of Listing on ASX. The Executive Directors have been engaged pursuant to services agreements, the terms of which are summarised in Section 12.8. The Board has agreed that the Executive Directors shall not be paid a Director's fee in addition to the fees payable under the services contract. The 5 Non-Executive Directors have each been appointed, and Dr King is proposed to be appointed, pursuant to an appointment letter which sets out the terms of their appointment and their remuneration (see Section 12.9).

If a Non-Executive Director performs services, which in the opinion of the Directors are outside the scope of the ordinary duties of the Director, the Company may remunerate that Director by payment of a fixed sum determined by the Directors in addition to, or instead of, the remuneration referred to above. However, no payment can be made if the effect would be to exceed the maximum aggregate amount payable to Non-Executive Directors.

A summary of the compensation paid to Renergen's Non-Executive Directors for the financial years ended 28 February 2018 and 2017 is set out in the table below:

Name of Non-Executive Director	2017 Directors' Fees ZAR000's	2017 Committees Fees ZAR000's	2017 Total ZAR000's	2018 Directors' Fees ZAR000's	2018 Committees Fees ZAR000's	2018 Total ZAR000's
Brett Kimber	260	99	359	216	130	346
Mbali Swana	180	140	320	173	151	324
Luigi Matteucci	127	188	315	216	194	410
Bane Maleke	18	25	43	173	86	259
Russel Broadhead (resigned on 10 October 2016)	129	44	173	-	-	-
Eddie Cooke (resigned on 7 December 2016)	53	13	66	-	-	-

The following summarises the compensation paid to Renergen's Non-Executive Directors for the 6-month period ended 31 August 2018:

Name of Non-Executive Director	Directors' Fees ZAR000's	Committees Fees ZAR000's	Total ZAR000's
Brett Kimber	130	43	173
Mbali Swana	86	69	155
Luigi Matteucci	86	112	198
Bane Maleke	86	43	129

Note: Mr Francois Olivier was appointed as a Non-Executive Director on 19 November 2018.

8.4. Director Disclosures

No Director or proposed Director has been the subject of any disciplinary action, criminal conviction, personal bankruptcy, insolvency or individual voluntary compromise arrangement or disqualification in Australia or elsewhere in the last 10 years.

No Director has been an officer of a company that has entered into any form of external administration as a result of insolvency during the time that such Director was an officer or within a 12-month period after they ceased to be an officer.

The proposed Director Dr King was a director of Vini Wine Importers Pty Ltd ACN 147 285 158 which went into external administration approximately 5 months after he ceased to be an officer of the company. Dr King was also a director of Baralino Pty Ltd (ACN 142 908 227) which went into external administration approximately 4 months after he ceased to be an officer of the company. As set out in Section 8.1, Dr King is an experienced and highly respected director, having been and continuing to be a director of a number of ASX listed companies.

8.5. Components of executive compensation

The Company's current executive compensation program (as determined by its Compensation Committee) consists of the following components:

- ☐ Base Salary – the base salary for Renergen's executives is set by reference to the executive's background and position, the executive's achievement of business objectives and goals, relevant market data, the executive's contribution to the business and performance over the previous financial year and recommendations received from Renergen's Chief Executive Officer. In setting the 2019 base salary for Renergen's current executives, the Board considered a report produced by PwC South Africa for the Board which benchmarks executive pay for companies of a similar size and nature;
- ☐ Equity-based incentives – such incentives include long-term share-based incentive awards which generally consist of Shares. Renergen intends to provide its executives with long-term share-based incentive awards either in connection with their initial hire or following promotion as well as on an annual basis;
- ☐ Severance benefits – these benefits are payable in the event that an executive's employment is terminated without cause; and
- ☐ Other benefits –such benefits include, for example, health insurance, life and disability insurance and pension benefits.

A summary of the compensation paid to Renergen's principal executives for the half year ended 31 August 2018 as well as the base salaries for Renergen's principal executives for 2017 is set out in the table below:

Name of Executive	2017 Base Salary ZAR000's	2017 Bonus ZAR000's	2017 Total ZAR000's	2018 Base Salary ZAR000's	2018 Bonus ZAR000's	2018 Total ZAR000's
Stefano Marani Chief Executive Officer	1,999	167	2,166	2,159	180	2,339
Fulufhedzani (Fulu) Ravele Chief Financial Officer	1,145	100	1,245	1,344	112	1,456
Nick Mitchell Chief Operating Officer	1,931	160	2,091	2,072	173	2,245
Total	5,075	427	5,502	5,575	465	6,040

The following summarises the compensation paid to Renergen's principal executives for the 6-month period ended 31 August 2018:

Name of Executive	Base Salary ZAR000's	Bonus ZAR000's	Total ZAR000's
Stefano Marani Chief Executive Officer	1,079	-	1,079
Fulufhedzani (Fulu) Ravele* Chief Financial Officer	672	-	672
Nick Mitchell Chief Operating Officer	1,036	-	1,036
Total	2,787	-	2,787

8.6. Directors' interests and remuneration

Other than as set out below or elsewhere in this Prospectus, no Director or proposed Director of the Company:

- ☐ has been paid or agreed to be paid any amount, or has been given or agreed to be given any other benefit, either to induce him or her to become, or to qualify him or her as, a Director or otherwise for services rendered by him or her in connection with the formation or promotion of the Company or the Offer; and
- ☐ has or had at any time during the two years preceding the date of the Prospectus, any interest in the formation or promotion of Renergen, or in any property acquired or proposed to be acquired by Renergen or the Offer; or
- ☐ has been paid or agreed to be paid any amount or given or agreed to be given any other benefit for services rendered by them in connection with the formation or promotion of Renergen or the Offer.

8.7. Deeds of access, indemnity and insurance for Directors

The Company has entered into a deed of access, indemnity and insurance with each Director to provide indemnification, including advancement of expenses incurred in legal proceedings to which the Director was, or is threatened to be made, a party by reason of the fact that such Director is or was a Director, officer, employee or agent of the Company, provided that such Director acted in good faith and in a manner that the Director reasonably believed to be in, or not opposed to, the Company's best interests. The deed of access, indemnity and insurance also contains the Director's rights to Board papers.

At present, there is no pending litigation or proceeding involving a Director or officer for which indemnification is sought, nor is the Company aware of any threatened litigation that may result in claims for indemnification.

The Company maintains insurance policies that indemnify its Directors and officers against various liabilities that might be incurred by any Director or officer in his or her capacity as such.

8.8. Bonus Share Plan

The Company has adopted a Bonus Share Plan, details of which are set out in Section 12.11.

8.9. Dr David King's Options

Options will be issued to Dr King under the Options Offer, details of which are set out in Section 12.9.

8.10. Corporate Governance – Overview

This summary identifies the key corporate governance policies and practices adopted by the Board. The Board is committed to ensuring continued investor confidence in the operations of the Company and in maintaining high standards of corporate governance in the performance of their duties.

Renergen has adopted the King IV's Corporate Governance principles, which are approved by JSE. The King IV's objectives are to:

- ☐ promote corporate governance as integral to running an organisation and delivering governance outcomes such as ethical culture, good performance, effective control and legitimacy;
- ☐ broaden the acceptance of King IV by making it accessible and fit for implementation across a variety of sectors and organisational types;
- ☐ reinforce corporate governance as a holistic and interrelated set of agreements to be understood and implemented in an integrated manner;
- ☐ encourage transparent and meaningful reporting to stakeholders; and
- ☐ present corporate governance as concerned with not only structure and process, but also with an ethical consciousness and conduct.

The Role of the Board

The role of the Board is to provide strategic guidance to the Company (and its related bodies corporate), effective oversight of management and to provide a sound base for a culture of good corporate governance within the Company.

Issues of substance affecting the Company are considered by the full Board, with advice from external advisers as required. Each Director must bring an independent view and judgement to the Board and must declare actual or potential conflicts of interest. Any issue concerning a Director must be provided to the Board at a Board meeting as soon as practicable, and Directors may not participate in discussions or resolutions pertaining to any matter in which the Director has a material personal interest.

The Board has ultimate responsibility to Shareholders for the welfare of the Company by guiding and monitoring its business affairs. The Board delegates management of the Company's resources to the Executive Team, under the leadership of the Chief Executive Officer, to deliver the strategic plans and goals set by the Board.

The responsibilities of the Board are set down in a Board Charter and the roles of, and division of authority between, the Chief Executive Officer and Chief Operating Officer will be determined by the Board as required by the Board Charter. In discharging their duties, Directors are provided with direct access to senior management and external advisors and auditors. Board committees and individual Directors may retain outside financial, legal or other advisers as they consider appropriate at the Company's expense.

The Board will review its performance and the Board Charter annually.

Responsibilities of the Board

The responsibilities of the Board include:

- ☐ representing and serving the interests of Security holders by overseeing and appraising the Company's strategies, policies and performance;
- ☐ protecting and optimising the Company's performance and building sustainable value for Shareholders;
- ☐ setting, reviewing and monitoring compliance with the Company's values and governance framework; and
- ☐ ensuring that Security holders are kept informed of the Company's performance and major developments.

Composition of the Board

Under the Company's Memorandum of Incorporation, the minimum number of Directors is 4. At the date of Listing on ASX, the Board will be comprised of 9 Directors as set out in Section 8.1. The Directors consider the size and composition of the Board is appropriate given the current size and status of the Company.

Each Director is bound by all of the Company's charters, policies and codes of conduct. If the Board determines it is appropriate or necessary, they may establish committees to assist in carrying out various responsibilities of the Board. Such committees will be established under a formal charter.

The Board delegates the management of the Company's business and day to day operation to the Managing Director who is authorised, in turn, to delegate such powers conferred on him or her to members of the senior management group and/or consultants. There is a balance of power on the board and no one Director can influence the decisions of the Company.

The Board seeks to nominate persons for appointment to the Board who have the qualifications, experience and skills to augment the capabilities of the Board.

Independence of Directors

In accordance with the Company's corporate governance principles, the majority of Board members are independent Directors. The Board considers that a Director is independent when the Director is not an officer or employee of the Company or its subsidiaries, does not have any relationship which would, or could reasonably appear to, materially interfere with independent judgement, and otherwise meets the independence requirements under the JSE Listings Requirements and the ASX Corporate Governance Principles. The Board will consider the materiality of any given relationship on a case-by-case basis and has adopted guidelines to assist in this regard. The Board reviews the independence of each Director in light of the interests disclosed to the Board from time to time.

The Board Charter sets out guidelines and thresholds of materiality for the purpose of determining the independence of Directors. For this purpose, a Director will (amongst others) not be considered to be independent if the Director:

- ☐ is a substantial Shareholder of Renergen or an officer of, or otherwise associated directly with, a substantial Shareholder of Renergen;
- ☐ is employed, or has previously been employed in an executive capacity by Renergen, and there has not been a period of at least 3 years between ceasing that employment and serving the Board;
- ☐ is, or has within the last 3 years, in a material business relationship (e.g. as a supplier or customer) with Renergen, or as an officer of, or otherwise associated directly or indirectly with, someone with such a relationship;
- ☐ has a material contractual relationship with Renergen other than as a Director of Renergen;
- ☐ has close family ties with any person who falls within any of the categories described above; or
- ☐ has been a Director of Renergen for such period that his or her independence may have been compromised.

In each case, the Board will consider whether there are any factors or considerations which may mean that the Director's interest, business or relationship could, or could reasonably be perceived to materially interfere with the Director's ability to act in the best interests of the Company.

The Board considers that Brett Kimber, Mbali Swana, Luigi Matteucci and proposed Director Dr King are free from any business or other relationship that could materially interfere with, or reasonably be perceived to interfere with the independent exercise of their judgement and are able to fulfil the role of independent Director.

The Board believes that each of the Non-Executive Directors brings objective and independent judgement to the Board's deliberations, and that each of the Non-Executive Directors makes valuable contributions to the Company.

Independent professional advice

The Directors are entitled to seek independent professional advice at the Company's expense on any matter connected with the discharge of their responsibilities. Such advice may be sought in accordance with the procedures set out in the Board Charter.

Board committees

The Board has two standing committees to facilitate and assist the Board in fulfilling its responsibilities, consisting of an Audit and Risk Committee and a Governance, Ethics, Transformation, Social and Compensation Committee. Each of these committees has the responsibilities described in the committee charters adopted by the Company for these committees. The Board may also establish other committees from time to time to assist in the discharge of its responsibilities.

The members of the Company's current standing committees are as follows:

Member	Role	Information on committee member
Audit and Risk Committee		
Luigi Matteucci	Chairman	Non-Executive Director, independent Director
Mbali Swana	Member	Non-Executive Director, independent Director
Bane Maleke	Member	Non-Executive Director, independent Director
Governance, Ethics, Transformation, Social and Compensation Committee		
Mbali Swana	Chairman	Non-Executive Director, independent Director
Luigi Matteucci	Member	Non-Executive Director, independent Director
Brett Kimber	Member	Non-Executive Director, independent Director
Bane Maleke	Member	Non-Executive Director, independent Director
Nick Mitchell	Member	Executive Director, non-independent Director
Nominations Committee		
Brett Kimber	Chairman	Non-Executive Director, independent Director
Luigi Matteucci	Member	Non-Executive Director, independent Director
Bane Maleke	Member	Non-Executive Director, independent Director
Nick Mitchell	Member	Executive Director, non-independent Director

Note:

1. Mr Olivier who is a non-independent, Non-Executive Director does not serve on any board committees; and
2. Dr King who is a proposed independent, Non-Executive Director does not serve on any board committees.

Audit and Risk Committee

The role of the Audit and Risk Committee is to assist the Board to meet its oversight responsibilities in relation to the Company's financial reporting systems, the systems of internal control and risk management and audit functions. In fulfilling these roles, the Audit and Risk Committee is responsible for maintaining effective communication between the Board, itself, management and auditors.

The Audit and Risk Committee provides advice to the Board and reports on the status and management of the risks to the Company. The purpose of the Committee's risk management process is to assist the Board in relation to risk management policies, procedures and systems and ensure that risks are identified, assessed and appropriately managed.

The Board has adopted a policy regarding the services that the Company may obtain from its auditor. It is the policy of the Company that its external auditor must:

- ☐ lack any current or past connection or association with the Company or with any member of senior management which could in any way impair, or be seen to carry with it the risk of impairing, the independent external review the external auditor is required to take in relation to the Company;
- ☐ have a general reputation for independence and probity and professional standing within the business community; and
- ☐ possess knowledge of the industry within which the Company operates.

The Audit and Risk Committee Charter provides that the committee will comprise at least 2 members of the Company whilst the Company has 4 or less Directors and otherwise 3 members each of whom are Non-Executive Directors and a majority of whom are independent. The chair of the committee shall be an independent Non-Executive Director who does not chair the Board.

The Audit and Risk Committee will meet as often as is required by the Audit and Risk Committee Charter or other policy approved by the Board to govern the operations of the Audit and Risk Committee. The Audit and Risk Committee met 3 times in the previous financial year. The Audit and Risk Committee may seek advice from external advisers and invite the external auditor, any internal auditor, and any other Non-Executive Director, executive or employee of the Company and any other person to be present at the meetings of the Audit and Risk Committee. The Audit and Risk Committee will regularly report to the Board about committee activities, issues and related recommendations.

The Committee currently comprises Luigi Matteucci (Chair), Mbali Swana and Dr Bane Maleke. The Board acknowledges ASX Recommendation 4.1 that a majority of the members of an audit committee should be independent directors. All three members are independent, Non-Executive Directors.

The Board believes that the current members of the Committee are the most appropriate to achieve its objectives (having regard to their experience and skills) and that each member will bring independent judgement to the Audit and Risk Committee deliberations. The Committee is satisfied with the expertise and experience of the financial Director.

Governance, Ethics, Transformation, Social and Compensation Committee

The Committee is tasked with independently assisting the Board with the monitoring of social and ethical matters, overseeing the remuneration of Directors and executives, providing strategic input on the transformation in the Company as well as selected matters related to Human Resources and recommending nominations for Directorships to the Board.

The Committee reviews and makes recommendations to the Board on remuneration packages and policies related to the Directors and senior executives, and to ensure that the remuneration policies and practices are consistent with the Company's strategic goals and human resource objectives. The Committee is also responsible for reviewing and making recommendations in relation to the composition and performance of the Board and its committees and ensuring that adequate succession plans are in place (including for the recruitment and appointment of Directors and senior management). Independent advice will be sought where appropriate.

The Committee meets at least twice a year with additional meetings if required.

The Committee reviews and provides strategic input on the transformation status reports submitted to the Board. These reports provide an update on the targets, activities and progress on transformation in the Company, in relation to Human Resources and employment issues. In executing its transformation function, the Committee considers the adequacy of the targets for each of the elements of the codes of good practice issued by the South African Department of Trade and Industry pertaining to Human Resource Development, including Employment Equity at Executive, Group and Board, Senior, Middle and Junior Management levels and Skills Development.

The Committee monitors:

- ☐ black economic empowerment matters;
- ☐ compliance with all environmental laws and regulations applicable to the Company's business operations;
- ☐ the adequacy of environmental policies to fully identify and address the impact of its operations and to protect, enhance and invest in the well-being of the environment;
- ☐ relevant sustainability risks inherent in Renergen's impact on the environment and incorporated the same into its environmental policy;
- ☐ systems and tools used to report on its carbon emissions, energy and water usage;
- ☐ the appropriateness of measures taken to deal with any pollutant emissions and/or waste/effluent and in an environmentally friendly manner that is independently verifiable; and
- ☐ actions taken to reduce or minimise the environmental impact of the Company's product(s) when they reached the end of their life-cycle and/or when disposed of by the consumers.

The alignment of the above criteria with the Company's strategy and the adequacy of the criteria are used to measure and report on the implementation of the above policies and procedures to enhance integration and sustainability.

The Committee currently comprises Mbali Swana (Chair), Luigi Matteucci, Brett Kimber, Bane Maleke and Nick Mitchell. The Board acknowledges ASX Corporate Governance Principles and Recommendation 8.1 that a majority of the members of a compensation committee should be independent directors. The majority of the Directors on the Committee are independent, Non-Executive Directors.

The Board believes that the current members of the Committee are the most appropriate to achieve its objectives (having regard to their experience and skills) and that each member will bring independent judgement to the Committee deliberations.

Nominations Committee

The Company's Nominations Committee recommends the Director nominees for each annual general meeting and ensures that the audit, compensation and nominating and corporate governance committees of the Board have the benefit of qualified and experienced independent Directors. The committee's primary responsibilities are to:

- ☐ review the composition of the Board;
- ☐ select, or recommend to the Board, nominees for each election of Directors;
- ☐ develop and recommend to the Board criteria for selecting qualified Director candidates;
- ☐ consider committee member qualifications, appointment and removal;
- ☐ review succession plans, including new senior appointments, resignations and retirement plans;
- ☐ recommend corporate governance principles, codes of conduct and applicable compliance mechanisms; and
- ☐ provide oversight in the evaluation of the Board.

The Nominations Committee is governed by a written charter approved by the Board.

The Committee currently comprises Brett Kimber (Chair), Luigi Matteucci, Bane Maleke and Nick Mitchell. The Board acknowledges ASX Recommendation 8.1 that a majority of the members of a Nominations Committee should be independent directors. The majority of the Directors on the Committee are independent, Non-Executive Directors.

The Board believes that the current members of the Committee are the most appropriate to achieve its objectives (having regard to their experience and skills) and that each member will bring independent judgement to the Committee deliberations.

8.11. Corporate governance policies

The Company has adopted a number of corporate governance policies, the key ones of which are set out below.

Code of Business Conduct and Ethics

The Board recognises the need to observe the high standards of corporate practice and business conduct. Accordingly, the Board has adopted a Code of Business Conduct and Ethics which sets out the way the Company intends to conduct business. The Company intends to carry on business honestly and fairly, acting in ways that reflect well on the Company in strict compliance with all laws and regulations.

The policy document outlines the employees' obligations of compliance with the Code of Conduct and explains how the code interacts with the Company's other corporate governance policies.

A copy of the Code of Business Conduct and Ethics is available on the Company's website at www.renergen.com.au.

Continuous Disclosure Policy

Once listed on ASX, the Company will need to comply with the continuous disclosure requirements of the ASX Listing Rules and the Corporations Act. Subject to the exceptions contained in the ASX Listing Rules, the Company will be required to disclose to ASX any information concerning the Company which is not generally available and which a reasonable person would expect to have a material effect on the price or value of the CDIs. The Company has adopted a written Continuous Disclosure Policy relating to information disclosure and relevant procedures. A copy of the Continuous Disclosure Policy is available on the Company's website at www.renergen.com.au.

Insider Trading Policy

The Company has adopted a written policy in dealing in securities in order to ensure that the Company complies with the ASX Corporate Governance Principles as well as the requirements imposed under the Companies Act and the Corporations Act.

The Insider Trading Policy is designed to maintain investor confidence in the integrity of the Company's internal controls and procedures and to provide guidance on avoiding any breach of the insider trading laws in both Australia and South Africa.

A copy of the Insider Trading Policy is available on the Company's website at www.renergen.com.au.

Remuneration Policy

The Company has adopted a remuneration policy designed to promote superior performance and long-term commitment to the Company.

Shareholder Communication

The Board's aim is to ensure that Security holders are provided with full and timely information to assess the performance of the Company and that they are informed of all major developments affecting the state of affairs of the Company relevant to Security holders in accordance with all applicable laws. The Company has a communications strategy which aims to promote effective communication with Shareholders and encourage effective participation at general meetings.

Risk Management Policy

The Company has adopted a Risk Management Policy to assist it to identify, assess, monitor and manage risks. A copy of this policy is available on the Company's website at www.renergen.com.au.

Diversity Policy

The Board will also have the primary responsibility for implementing the Company's Diversity Policy which sets out the Company's vision for diversity, incorporating a number of different factors including gender, race, ethnicity, gender, sexual orientation, socio-economic situation, physical abilities, religious beliefs, political beliefs, age and other ideologies.

8.12. ASX Corporate Governance Principles

The ASX Corporate Governance Principles and the JSE Listings Requirements as they relate to corporate governance will apply to the Company after it is listed on ASX. The ASX Corporate Governance Principles are not prescriptive but are guidelines. However, under the ASX Listing Rules, Renergen will be required to provide a corporate governance statement in its annual report disclosing the extent to which it has followed the ASX Corporate Governance Principles in the reporting period. Where it has not followed a recommendation, it must identify the recommendation that has not been followed and give reasons for not following it.

The Board anticipates that it will follow all of the ASX Corporate Governance Principles following admission to the Official List, while continuing to comply with King IV's Corporate Governance principles. The Company's Corporate Governance Statement is available on its website, www.renergen.com.au.

9. FINANCIAL INFORMATION

9.1. Introduction

The financial information contained in this Section includes:

- (a) summary audited historical consolidated Statement of Profit or Loss and Other Comprehensive Income for the 12-month period ended 28 February 2017, 12-month period ended 28 February 2018 and the reviewed consolidated Statement of Profit or Loss and Other Comprehensive Income for the 6-month period ended 31 August 2018 (together with a comparative for the 6-month period ended 31 August 2017);
 - (b) summary audited historical consolidated Statement of Cash Flows for the 12-month period ended 28 February 2017, 12-month period ended 28 February 2018 and the reviewed consolidated Statement of Cash flows for the 6-month period ended 31 August 2018 (with a comparative for the 6-month period ended 31 August 2017);
 - (c) summary reviewed historical consolidated Statement of Financial Position as at 31 August 2018; and
 - (d) the pro forma historical consolidated Statement of Financial Position as at 31 August 2018,
- (together, the **Historical Financial Information**).

The Historical Financial Information should be read together with the other information contained in this Prospectus, including:

- ☐ the risk factors described in Sections 1.4 and 7;
- ☐ the description of the use of the proceeds of the Offer described in Section 11.2;
- ☐ the Independent Limited Assurance Report, set out in Section 10; and
- ☐ the indicative capital structure described in Section 11.8.

Potential investors should note that past performance is not an indication of future performance.

9.2. Basis of preparation and presentation of the Historical Financial Information

The Historical Financial Information has been prepared in accordance with International Financial Reporting Standards (IFRS) and the requirements of the South African Companies Act, the JSE Listings Requirements, and the SAICA Financial Reporting Guides as issued by the Accounting Practices Committee and the financial reporting pronouncements as issued by the Financial Reporting Standards Council in South Africa. The Historical Financial Information is presented in Rand which is also the currency the Company will report in the future. A convenience translation of the pro forma consolidated Statement of Financial Position into Australian dollars is presented at the indicative exchange rate of \$1=ZAR10.56.

The Company's significant accounting policies are described in Appendix A to the Prospectus which have been consistently applied to the Historical Financial Information. Set out below is the Company's evaluation of the impact on the Company's financial information from the introduction of new accounting standards IFRS 9 Financial Instruments, IFRS 15 Revenue from Contracts with Customers and IFRS 16 Leases.

The Financial Information is presented in an abbreviated form insofar as it does not include all the presentation and disclosures, statements or comparative information required by the Australian Accounting Standards (AAS) and other mandatory professional reporting requirements applicable to annual financial reports prepared in accordance with the Corporations Act.

The Historical Financial Information has been reviewed and reported on by Grant Thornton Corporate Finance Pty Ltd as set out in the Independent Limited Assurance Report in Section 10. Investors should note the scope and limitations of the Independent Limited Assurance Report.

The Historical Financial Information of the Company has been extracted from the audited consolidated financial statements for the 12-month period ended 28 February 2017, the audited consolidated 12-month period ended 28 February 2018, and the reviewed 6-month interim period financial statements for the period ended 31 August 2018 including the reviewed 6-month interim period financial statements for the period ended 31 August 2017. The consolidated financial statements were audited and reviewed by BDO (SA) Incorporated in accordance with South African Auditing Standards. The audit opinions issued to the Directors for the 12-month period ended 28 February 2017 and 12-month period ended 28 February 2018 were unqualified. The unqualified audit opinion for 28 February 2018 included an emphasis of matter regarding the Company's ability to continue as a going concern, which was dependent upon future capital raisings to fund on going activities. The review conclusion issued to the Directors for the 6-month period ended 31 August 2018 and 31 August 2017 were unmodified.

The pro forma Statement of Financial Position has been prepared solely for the purpose of inclusion in this Prospectus and has been derived from the Historical Financial Information.

After Renergen is listed on the ASX, Renergen's financial statements will continue to be audited under South African Auditing Standards, which the ASX has agreed to.

9.3. Non IFRS financial measures

Renergen uses certain measures to manage and report on its business that are not recognised under IFRS. These measures are collectively referred to as “non IFRS financial measures”. These non IFRS financial measures do not have a prescribed definition under IFRS and therefore may not be directly comparable to similarly titled measures presented by other entities. These measures are collectively referred in this Section 9 and under Regulatory Guide 230 Disclosing Non-IFRS Financial Information published by ASIC as “non-IFRS financial measures”. These should not be construed as an indication of, or an alternative to, corresponding financial measures determined in accordance with the IFRS. Although Renergen believes these non-IFRS financial measures provide useful information to users in measuring the financial performance and condition of the business, investors are cautioned not to place undue reliance on any non IFRS financial measures included in this Prospectus.

In particular the following non IFRS financial data is included:

- ☐ Operating EBITDA, which means earnings before interest, taxation, depreciation and amortisation and other larger one off significant transactions.

9.4. Changes in Accounting Standards

A number of new accounting standards will apply to Renergen’s future financial reports as described below.

IFRS 15 (revenue from Contracts with Customers)

Application of the standard is mandatory for reporting periods beginning on or after 1 January 2018. This standard provides a single, principles-based five-step model for the determination and recognition of revenue to be applied to all contracts with customers. It replaces in particular IAS 18 (Revenue) and has no material effect on the prior year and current year presentation of Renergen Group results of consolidated statement of comprehensive income and financial position, however it will lead to additional disclosure in the accounting policies and notes in future annual and interim financial reports. Renergen Group currently services one customer in South Africa and does not export any CNG. The impact of adopting IFRS 15, does not result in any further disaggregation of revenue as compared to the segmental report of the financial statements as the Group only has one source of revenue from one South African customer.

IFRS 9 (Financial Instruments)

IFRS 9 was effective for the 6-month period ended 31 August 2018. As permitted by IFRS 9, Renergen Group has not restated comparative information for 2018 for financial instruments in the scope of IFRS 9. Therefore, the comparative information for 2017 is reported under IAS 39 and is comparable to the information presented for FY2018. There is, however, no material impact from IFRS 9 on the Historical Financial Information as there were no expected impairments from trade and other receivables.

IFRS 16 (Leases)

IFRS 16 replaces the previous lease standard IAS 17 Leases and related interpretations. IFRS 16 has one model for lessees which will result in almost all leases being recognised on balance sheet as the distinction between operating and finance leases is removed. The only exceptions are short-term and low-value leases. At the commencement date of a lease, a lessee will recognise a liability to make lease payments (i.e. the lease liability) and an asset representing the right to use the underlying asset during the lease term (i.e. the right-of-use asset). The effective date of the standard is for years beginning on or after 1 January 2019. The Company and Group will adopt the standard for the first time in the 2020 financial statements. It is unlikely that the standard will have a material impact on the Group’s financial statements.

9.5. Summary historical financial performance

The table below presents the historical consolidated statement of Profit or Loss and Other Comprehensive Income for the 12-month period ended 28 February 2017 and 12-month period ended 28 February 2018, and the 6-month period ended 31 August 2018 with the comparative period for the 6-month period ended 31 August 2017.

Table 8 – Historical consolidated Statement of Profit or Loss and Other Comprehensive Income

	12 months ended 28 February 2017 Audited ZAR000's	12 months ended 28 February 2018 Audited ZAR000's	6 months ended 31 August 2018 Reviewed ZAR000's	6 months ended 31 August 2017 Reviewed ZAR000's
Revenue	1,722	2,885	1,753	1,429
Cost of sales	(2,127)	(3,483)	(1,623)	(1,857)
Gross profit/ (loss)	(405)	(598)	130	(428)
Other income	375	59	691	23
Impairment	(3)	(12,245)	-	-
Share based payments	-	(114)	(154)	-
Operating expenses	(22,986)	(31,912)	(18,441)	(16,694)
Profit on disposal of business	-	4,708	-	-
Operating loss	(23,019)	(40,102)	(17,774)	(17,099)
Interest income	1,287	632	124	222
Interest expense	(8)	(35)	(39)	-
Imputed Interest	(3,156)	(3,532)	(1,931)	(1,740)
Loss before tax	(24,896)	(43,037)	(19,620)	(18,617)
Taxation	6,234	2,436	2,153	115
Total loss after tax	(18,662)	(40,601)	(17,467)	(18,502)
Other comprehensive income				
Foreign currency translation gain	3,389	1,348	-	1,318
Foreign currency reserve realised on disposal of business-transfer to other comprehensive income	-	(4,737)	-	-
Other comprehensive income				
Total comprehensive loss for the period	(15,273)	(43,990)	(17,467)	(17,184)
Loss attributable to:				
Owners of the parent	(17,221)	(37,680)	(16,008)	(16,735)
Non-controlling interest	(1,441)	(2,921)	(1,459)	(1,767)
	(18,662)	(40,601)	(17,467)	(18,502)
Total comprehensive loss attributable to:				
Owners of the parent	(13,832)	(41,069)	(16,008)	(15,417)
Non-controlling interest	(1,441)	(2,921)	(1,459)	(1,767)
	(15,273)	(43,990)	(17,467)	(17,184)

The historical consolidated statement of Profit or Loss and Other Comprehensive Income has been extracted from the audited and reviewed financial statements of the Company.

Management discussion and analysis of the historical financial performance

12-month period ended 28 February 2017

Tetra4 started producing natural gas in May 2016. The plant was fully operational and operating per the design specifications by September 2016 allowing Tetra4 to supply into the Gas Supply Agreement with Megabus for 10 CNG powered Megabus buses operated in the Free State, traveling over 200kms a day (refer to Section 12.3). Revenue generated in the 12-month period ended 28 February 2017 relates to the sale of CNG under the Gas Supply Agreement.

Cost of sales relates to the cost of extraction of CNG including direct labour costs and transportation.

Operating expenses primarily consisted of personnel costs and professional fees. Personnel costs increased as the headcount increased from 9 in 2016 to 17 in 2017, the majority of which were in selling and distribution. In addition, the CEO and COO compensation was brought in line with JSE public company rates.

12-month period ended 28 February 2018

Tetra4 continued to develop the infrastructure that is required to scale up its operations and completed and submitted the application for the Environmental Authorisation for the pipeline, which was approved on 29 September 2017.

Revenues generated were the continuation of the Gas Supply Agreement with Unitrans, under which Tetra4 supplied CNG to the passenger coach division of Megabus.

Cost of sales increased in line with increased production and benefitted from the increased scale of operations.

The impairment relates to Renergen's Côte d'Ivoire hydroelectric project managed by Mega Power Renewables (a subsidiary of Renergen) located in Côte d'Ivoire (in the west of the African continent) which Management decided not to continue to fund as all focus was exclusively on Tetra4.

The increase in operating costs predominately relates to increased marketing and engineering activities ahead of commercialisation of Tetra4.

6-month period ended 31 August 2018

Revenues increased in the 6-month period to 31 August 2018 with more CNG being sold as well as an increase in the average sales price. Revenues continued to be generated through the continuation of the Gas Supply Agreement with Megabus.

Costs of production decreased as a result of several small operational efficiencies gained at the plant, and slightly increased volumes lowering the overall cost per unit produced.

Operating expenses increased due to an increase in headcount as well as costs incurred in relation to the Offer expensed in the 6-month period to 31 August 2018.

9.6. Summary historical financial cash flows

Set out in the table below is a summary of Renergen's historical cash flows.

Table 9 – Historical consolidated Statement of Cash Flows

	12 months ended 28 February 2017 Audited ZAR000's	12 months ended 28 February 2018 Audited ZAR000's	6months ended 31 August 2018 Reviewed ZAR000's	6 months ended 31 August 2017 Reviewed ZAR000's
Cash flows from operating activities				
Operating EBITDA (Table 10)	(21,160)	(29,626)	(16,074)	(15,770)
Movement in working capital	(3,254)	12,089	4,710	9,439
Movement in other assets and liabilities (including non-cash movements)	-	(1,499)	(117)	1,103
Net cash used in operating activities	(24,414)	(19,036)	(11,481)	(5,228)
Cash Flows from investing activities				
Purchase of PP&E	(16,469)	(13,662)	(4,823)	(12,292)
Proceeds from sale of asset	15	-	-	-
Purchase on intangible	(4,260)	(199)	(1,927)	(72)
Net cash (outflow) / inflows from investing activities	(20,714)	(13,861)	(6,750)	(12,364)
Cash flows from financing activities				
Net proceeds on share issue	13,427	23,480	21,536	9,946
Finance leases	-	558	(83)	-
Net finance income	1,279	597	-	222
Rehabilitation guarantee	-	-	-	264
Net cash inflows from financing activities	14,706	24,635	21,453	10,432
Total cash movement for the period	(30,422)	(8,262)	3,222	(7,160)
Cash at beginning of the period	41,721	11,299	3,037	11,299
Total cash at the end of the period	11,299	3,037	6,259	4,139

The historical consolidated statement of Cash Flows has been extracted from the audited financial statements of the Company.

Table 10 – Historical operating loss to operating EBITDA reconciliation

	12 months ended 28 February 2017 ZAR000's	12 months ended 28 February 2018 ZAR000's	6 months ended 31 August 2018 ZAR000's	6 months ended 31 August 2017 ZAR000's
Operating Loss	(23,019)	(40,102)	(17,774)	(17,099)
Depreciation and amortisation	1,841	2,823	1,546	1,329
Impairment	3	12,245	-	-
Profit on disposal of business	-	(4,708)	-	-
Share based payments	-	116	154	-
Profit on sale of assets	15	-	-	-
Operating EBITDA	(21,160)	(29,626)	(16,074)	(15,770)

Management discussion and analysis of the historical consolidated cash flows

Renergen has historically generated negative cash flow from operations which together with the capital expenditure on Tetra4 has been funded by equity issuances throughout the historical period and the loan provided by Molopo Energy Limited (refer to Section 9.10 for further details).

The capital expenditure is mainly in relation to Tetra4 including the establishment of the initial well and associated equipment to service the Gas Supply Agreement.

Set out below is a reconciliation of the Loss before tax to cash used in operations.

9.7. Historical and Pro-forma Consolidated Statement of Financial Position

The table below sets out the summary reviewed historical consolidated Statement of Financial Position of the Company as at 31 August 2018 and the pro forma adjustments that have been made to it (further described in Section 9.8) and the pro forma consolidated Statement of Financial Position as at 31 August 2018 including a convenience translation to Australian dollars at an exchange rate of ZAR10.56:\$1 current at 31 August 2018.

The pro forma consolidated Statement of Financial Position is provided for illustrative purposes only and is not represented as being necessarily indicative of the Company's view of its future financial position.

Table 11 – Historical consolidated Statement of Financial Position

	31 August 2018 Reviewed ZAR000's	Impact of the Offer Minimum ZAR000's	Impact of the Offer Over- subscription ZAR000's	Pro-forma Minimum ZAR000's	Pro-forma Over subscription ZAR000's	Pro-forma Minimum A000's	Pro-forma Over subscription A000's
Current Assets							
Cash and cash equivalents	6,259	166,227	215,815	172,486	222,074	16,334	21,030
Trade and other receivables	3,084	-	-	3,084	3,084	292	292
Total Current Assets	9,343	166,227	215,815	175,570	225,158	16,626	21,322
Non-Current Assets							
Plant and equipment	35,853	-	-	35,853	35,853	3,395	3,395
Intangible assets	67,765	-	-	67,765	67,765	6,417	6,417
Deferred tax asset	10,824	-	-	10,824	10,824	1,025	1,025
Restricted cash	1,875	-	-	1,875	1,875	178	178
Total Non-Current Assets	116,317	-	-	116,317	116,317	11,015	11,015
Total Assets	125,660	166,227	215,815	291,887	341,475	27,641	32,337
Current Liabilities							
Trade and other payables	16,503	(1,630)	(1,630)	14,873	14,873	1,408	1,408
Finance lease obligation	382	-	-	382	382	36	36
Total Current Liabilities	16,885	(1,630)	(1,630)	15,255	15,255	1,444	1,444
Non-Current Liabilities							
Other financial liabilities	32,476	-	-	32,476	32,476	3,075	3,075
Borrowings	-	5,584	5,584	5,584	5,584	529	529
Provisions	3,100	-	-	3,100	3,100	294	294
Finance lease obligation	313	-	-	313	313	30	30
Total Non-Current Liabilities	35,889	5,584	5,584	41,473	41,473	3,928	3,928
Total Liabilities	52,774	3,954	3,954	56,728	56,728	5,372	5,372
Net Assets	72,886	162,273	211,861	235,159	284,747	22,269	26,965
Equity							
Share capital	182,602	163,967	212,905	346,569	395,507	32,820	37,455
Accumulated loss	(96,239)	(7,709)	(7,413)	(103,948)	(103,652)	(9,844)	(9,816)
Share Based Payment							
Reserve	268	6,015	6,369	6,283	6,637	595	628
Equity attributable to Parent	86,631	162,273	211,861	248,904	298,492	23,571	28,267
Equity attributable to Non-controlling interests	(13,745)	-	-	(13,745)	(13,745)	(1,302)	(1,302)
Total Equity	72,886	162,273	211,861	235,159	284,747	22,269	26,965

The historical and pro forma consolidated statement of financial position should be read in conjunction with Section 9.8.

9.8. Subsequent Events and Pro forma Adjustments

The following transactions contemplated in this Prospectus which are to take place on or before the Completion, referred to as the pro forma adjustments, are presented as if they, together with the Offer, had occurred on or before 31 August 2018 and are set out below. With the exception of the pro forma transactions noted below, no other material transactions have occurred between 31 August 2018 and the Prospectus Date which the Directors consider require disclosure.

- (a) Subsequent events:
- (i) Rights Offer issue in November 2018 relating to the issue of 16,666,667 Shares with net proceeds of ZAR118.8 million (\$11.2 million);
 - (ii) in December 2018, convertible debt instruments of ZAR5.3 million (\$0.5 million) were issued at a coupon rate of 15% per annum of which the Company will pay 5% of the interest accruing to the notes per annum and will capitalise 10% per annum until the earlier of the date of conversion or maturity date;
 - (iii) the accrual of interest on the convertible note from their issue (December 2018) to completion of the Offer (May 2019) for a total of ZAR370,000 (\$35,000); and
 - (iv) a cash payment of a portion of the interest component on the convertible notes which will be paid in March 2019 for a total of ZAR66,000 (\$6,000).
- (b) Pro forma transactions:
- (i) the issue of CDIs pursuant to the Offer to raise the Minimum Subscription of \$5 million, with the right to accept oversubscriptions up to a further \$5 million. This will result in the issue of between 6,250,000 (Minimum Subscription) and 12,500,000 (over subscription) CDIs;
 - (ii) total costs in relation to the Offer which have been estimated at \$2.0 million (\$0.8 million capitalised against equity and \$1.2 million expensed) for the Minimum Subscription and \$2.2 million (\$1.2 million capitalised against equity and \$1.1 million expensed), with full oversubscriptions. As at 31 August 2018, \$0.4 million has been paid by the Company (all expensed). As at 31 August 2018 \$0.1 million remains accrued and unpaid. \$0.6 million of costs will be paid through the issue of Options at the minimum subscription amount with full oversubscriptions; and
- (c) Recognition of a deferred tax asset:
- (i) A deferred tax asset has not been recognised in relation to the capitalised Offer costs due to the uncertainty surrounding the flow of economic benefits that will flow in future periods.

Equity

The pro forma equity has been set out below:

ZAR000	Pro forma adjustment Notes	No. of Shares/ CDI's	Share Capital	Accumu- lated. Losses	Share Based Payment Reserve	Non Controlling Interest	Net assets
Equity as at 31 August 2018		83,469,085	182,602	(96,239)	268	(13,745)	72,886
Subsequent events							
Rights Offer	(a)(i)	16,666,667	119,517	(717)	-	-	118,800
Interest accrued on convertible notes	(a)(iii)	-	-	(370)	-	-	(370)
Pre-Offer capital structure		100,135,752	302,119	(97,326)	268	(13,745)	191,316
Pro forma transactions in relation to Minimum Subscription							
The Offer	(b)(i)	6,250,000	52,798	-	-	-	52,798
Offer costs	(b)(ii)	-	(8,348)	(6,622)	6,015	-	(8,955)
Pro forma equity (minimum subscription)		106,385,752	346,569	(103,948)	6,283	(13,745)	235,159
Incremental transactions in relation to oversubscriptions							
The Offer	(b)(i)	6,250,000	52,798	-	-	-	52,798
Offer costs	(b)(ii)	-	(3,860)	296	354	-	(3,210)
Pro forma equity (with full oversubscriptions)		112,635,752	395,507	(103,652)	6,637	(13,745)	284,747

9.9. Selected notes to the pro forma balance sheet

Cash and cash equivalents

The pro forma cash and cash equivalents has been set out below:

	Pro forma adjustment Notes	Minimum Subscription Pro Forma ZAR000's	With \$5 million in over subscriptions Pro Forma ZAR000's
Cash and cash equivalents at 31 August 2018		6,259	6,259
Subsequent events			
Rights Offer November 2018	(a)(i)	118,800	118,800
Convertible notes issue	(a)(ii)	5,280	5,280
Payment of cash interest on convertible notes	(a)(iv)	(66)	(66)
Pro forma transactions			
Proceeds from CDIs issued under the Offer	(b)(i)	52,798	105,597
Cash costs in relation to the Offer	(b)(ii)	(10,585)	(13,796)
Pro forma cash and cash equivalents		172,486	222,074

9.10. Financing facilities

Molopo Energy Limited

Renegen entered into a ZAR50 million loan agreement on 1 May 2013. This loan was part of the conditions of the sale of shares in Tetra4 from Molopo Energy Limited to Windfall Energy Pty Ltd. The loan agreement is for the period from inception of the loan on 1 May 2013 until 31 December 2022. During this period, the loan is unsecured and interest free. The loan has no option to convert into Shares.

The loan must be repaid in accordance with the following terms:

- ☐ repayments are to be made by annual instalments; and
- ☐ repayments can only be made when Renegen declares a dividend. 36% of the annual profit of Renegen that is available to be paid as a dividend (distributable profit) must first be paid to Molopo Energy Limited in consideration for repayment for the loan. Renegen is only entitled to pay dividends to Shareholders from the balance of the distributable profit left after making the above repayment.

The loan is discounted to present value for the period that it is interest free at a discount rate which is equal to the prime lending rate plus 2% which at 31 August 2018 is 12% (prime lending rate at 10% plus 2%). The imputed interest is included in profit and loss. The fair value of the loan outstanding at 31 August 2018 amounts to ZAR32.5million.

In the event that by 31 December 2022 the loan is not repaid, the loan shall bear interest at prime overdraft plus 2% and will have no repayment terms. Shareholders loans can only be repaid after the loan from Molopo Energy Limited has been settled.

Overseas Private Investment Corporation

On 14 February 2019, Tetra4 and OPIC executed a commitment letter to enter into a loan facility for the total committed amount of US\$40 million (comprising a principal amount of US\$35 million and an additional US\$5 million available to cater for contingencies on the same terms). The term of the loan is 12 years from the date of first draw down, with an initial 30-month construction period during which interest is the only payable amount.

Tetra4 can only draw from the loan facility in two tranches. There are no additional equity requirements as Renegen's current resources are sufficient to meet the debt to equity requirements contemplated by the terms of the commitment letter. While the agreement to enter into a loan facility is binding on the parties, the exact terms of the loan and its administration are subject to the execution of a formal financing agreement and ancillary documents before 30 September 2019. Tetra4 intends to fully draw from the facility once these formal agreements are effective. Accordingly, no pro forma adjustment has been included in the Pro Forma Statement of Financial Position.

**Independent Limited
Assurance Report**



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Board of Directors
Renergen Limited
First Floor
1 Bompas Road
Dunkeld West 2196
South Africa

8 May 2019

Dear Directors

Level 17, 383 Kent Street
Sydney NSW 2000

Correspondence to:
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INDEPENDENT LIMITED ASSURANCE REPORT AND FINANCIAL SERVICES GUIDE

INTRODUCTION

This report has been prepared at the request of the directors of Renergen Limited ("Renergen" or "the Company") for inclusion in the replacement Prospectus to be dated on or about 8 May 2019 (the "Replacement Prospectus") in respect of the initial public offering of CHESSE Depository Interests ("CDIs") of the Company ("the Offer") and admission to the Australian Securities Exchange.

Grant Thornton Corporate Finance Pty Ltd ("Grant Thornton Corporate Finance") holds an Australian Financial Services Licence (AFS Licence Number 247140). This report is both an Independent Limited Assurance Report, the scope of which is set out below, and a Financial Services Guide, as attached at Appendix A.

Expressions defined in the Replacement Prospectus have the same meaning in this report, unless otherwise specified.

SCOPE

You have requested Grant Thornton Corporate Finance to perform a limited assurance engagement in relation to the following historical financial information of the Company included in Section 9 of the Replacement Prospectus:

Historical Financial Information

- the historical consolidated statement of profit and loss and other comprehensive income for the years ended 28 February 2017, 28 February 2018 and the six months ended 31 August 2018 (including the six months ended 31 August 2017 comparative) which are included in Table 8 in Section 9.5 of the Replacement Prospectus;
- the historical consolidated cash flow statement for the years ended 28 February 2017, 28 February 2018 and the six months ended 31 August 2018 (including the six months ended 31 August 2017 comparative) which are included in Table 9 in Section 9.6 of the Replacement Prospectus;
- the historical consolidated statement of financial position as at 31 August 2018 which is included in Table 11 in Section 9.7 of the Replacement Prospectus; and

Grant Thornton Corporate Finance Pty Ltd ABN 59 003 265 987 ACN 003 265 987
a subsidiary or related entity of Grant Thornton Australia Ltd ABN 41 127 556 389

Holder of Australian Financial Services Licence No. 247140

'Grant Thornton' refers to the brand under which the Grant Thornton member firms provide assurance, tax and advisory services to their clients and/or refers to one or more member firms, as the context requires. Grant Thornton Australia Ltd is a member firm of Grant Thornton International Ltd (GTIL). GTIL and the member firms are not a worldwide partnership. GTIL and each member firm is a separate legal entity. Services are delivered by the member firms. GTIL does not provide services to clients. GTIL and its member firms are not agents of, and do not obligate one another and are not liable for one another's acts or omissions. In the Australian context only, the use of the term 'Grant Thornton' may refer to Grant Thornton Australia Limited ABN 41 127 556 389 and its Australian subsidiaries and related entities. GTIL is not an Australian related entity to Grant Thornton Australia Limited.

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- the pro forma historical consolidated statement of financial position as at 31 August 2018 which is included in Table 11 in Section 9.7 of the Replacement Prospectus.

(together the “**Historical Financial Information**”).

The Historical Financial Information is presented in the Replacement Prospectus in an abbreviated form, insofar as it does not include all of the presentation and disclosures required by Australian Accounting Standards and other mandatory professional reporting requirements applicable to general purpose financial reports prepared in accordance with the Corporations Act 2001 (Cth).

The Historical Financial Information has been derived from the audited consolidated financial statements of the Company for the financial years ended 28 February 2017 and 28 February 2018, the reviewed consolidated financial statements of the Company for the six months ended 31 August 2018 (including the six months ended 31 August 2017 comparative) and the pro forma adjustments applied to the reviewed historical financial information as described in Section 9.8 of the Replacement Prospectus.

The Historical Financial Information has been prepared for inclusion in the Replacement Prospectus. The audited and reviewed historical consolidated financial statements Renergen used as the basis for the Historical Financial Information were audited and reviewed by Grant Thornton (SA) Propriety Limited in accordance with South African Auditing Standards. The audit opinion issued to the Directors for the year ended 28 February 2018 was unqualified but included an emphasis of matter regarding the Company’s ability to continue as a going concern subject to future capital raisings or financing arrangements. The audit and review opinions issued to the Directors for the year ended 28 February 2017 and the six months ended 31 August 2018 respectively were unqualified.

As described in Section 9.2 of the Replacement Prospectus the stated basis of preparation is the recognition and measurement principles contained in International Financial Reporting Standards (“IFRS”) and the Company’s adopted accounting policies.

DIRECTORS’ RESPONSIBILITY

The Directors are responsible for:

- the preparation and presentation of the Historical Financial Information including the selection and determination of the pro forma adjustments made to the historical financial information and the basis of preparation of the Historical Financial Information; and
- the information contained within the Replacement Prospectus .

This responsibility includes for the operation of such internal controls as the Directors determine are necessary to enable the preparation of Historical Financial Information that are free from material misstatement, whether due to fraud or error.



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OUR RESPONSIBILITY

Our responsibility is to express a limited assurance conclusion on the Historical Financial Information based on the procedures performed and the evidence we have obtained.

We have conducted our engagement in accordance with the Australian Standard on Assurance Engagements (ASAE) 3450 *Assurance Engagements involving Corporate Fundraisings and/or Prospective Financial Information*.

A limited assurance engagement consists of making enquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. A limited assurance engagement is substantially less in scope than an audit conducted in accordance with Australian Auditing Standards and consequently does not enable us to obtain reasonable assurance that we would become aware of all significant matters that might be identified in a reasonable assurance engagement. Accordingly we do not express an audit opinion.

Our engagement did not involve updating or re-issuing any previously issued audit or review report on any financial information used as a source of the Historical Financial Information.

We have performed the following procedures as we, in our professional judgement, considered reasonable in the circumstances.

- consideration of work papers, accounting records and other documents, including those dealing with the extraction of the Historical Financial Information from the audited and reviewed consolidated financial statements of the Company and its controlled entities covering the years ended 28 February 2017 and 28 February 2018 and the six months ended 31 August 2018;
- consideration of the appropriateness of the pro forma adjustments described in Section 9.8 of the Replacement Prospectus;
- enquiry of the Directors, management and others in relation to the Historical Financial Information;
- analytical procedures applied to the Historical Financial Information;
- a review of the work papers, accounting records and other documents of the Company and its auditors; and
- a review of the consistency of the application of the stated basis of preparation and adopted accounting policies as described in the Replacement Prospectus used in the preparation of the Historical Financial Information.

Our limited assurance engagement has not been carried out in accordance with auditing or other standards and practices generally accepted in any jurisdiction outside of Australia and accordingly should not be relied upon as if it had been carried out in accordance with those standards and practices.

We have assumed, and relied on representations from certain members of management of the Company, that all material information concerning the Historical Financial Information and historical operations of the Company has been disclosed to us and that the information provided to us for the purpose of our work is true, complete and accurate in all respects. We have no reason to believe that those representations are false.



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CONCLUSION

Historical Financial Information

Based on our limited assurance engagement, which is not an audit, nothing has come to our attention that causes us to believe that

- The Historical Financial Information, as set out in Section 9 of the Replacement Prospectus and comprising;
 - the historical consolidated statement of profit and loss and other comprehensive income for the years ended 28 February 2017 and 28 February 2018 and the six months ended 31 August 2018 (including the six months ended 31 August 2017 comparative);
 - the historical consolidated cash flow statements for the years ended 28 February 2017 and 28 February 2018 and the six months ended 31 August 2018 (including the six months ended 31 August 2017 comparative);
 - the historical consolidated statement of financial position as at 31 August 2018;
 - the pro forma historical consolidated statement of financial position as at 31 August 2018; and
 - the pro forma adjustments set out in Section 9.8 of the Replacement Prospectus

are not presented fairly, in all material respects, in accordance with the stated basis of preparation, as described in Section 9.2 of the Replacement Prospectus.

Restrictions on Use

Without modifying our conclusion, we draw attention to Section 9.2 of the Replacement Prospectus which describes the purpose of the Historical Financial Information, being for inclusion in the Replacement Prospectus. As a result, this Independent Limited Assurance Report may not be suitable for use for another purpose.

Consent

Grant Thornton Corporate Finance Pty Limited has consented to the inclusion of this Independent Limited Assurance Report in the Replacement Prospectus in the form and context in which it is included.

Liability

The liability of Grant Thornton Corporate Finance Pty Limited is limited to the inclusion of this report in the Replacement Prospectus. Grant Thornton Corporate Finance makes no representation regarding, and has no liability, for any other statements or other material in, or omissions from the Replacement Prospectus.

Independence

Grant Thornton Corporate Finance Pty Limited does not have any interest in the outcome of this Offer other than the preparation of this report and participation in the due diligence procedures for which normal professional fees will be received.

Yours faithfully

GRANT THORNTON CORPORATE FINANCE PTY LTD

Neil Cooke
Partner



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Level 17, 383 Kent Street
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Appendix A (Financial Services Guide)

This Financial Services Guide is dated 8 May 2019.

1 About us

Grant Thornton Corporate Finance Pty Ltd (ABN 59 003 265 987 and Australian Financial Services Licence no 247140) ("Grant Thornton Corporate Finance") has been engaged by Renergen Limited ("Renergen" or the "Company") to provide general financial product advice in the form of an Independent Limited Assurance Report (the "Report") in relation to the offer of CHESSE Depository Interests ("CDIs") of the Company (the "Offer"). This report is included in the replacement prospectus dated on or about 8 May 2019 (the "Replacement Prospectus"). You have not engaged us directly but have been provided with a copy of the Report as a retail client because of your connection to the matters set out in the Report.

2 This Financial Services Guide

This Financial Services Guide (FSG) is designed to assist retail clients in their use of any general financial product advice contained in the report. This FSG contains information about Grant Thornton Corporate Finance generally, the financial services we are licensed to provide, the remuneration we may receive in connection with the preparation of the report, and how complaints against us will be dealt with.

3 Financial services we are licensed to provide

Our Australian financial services licence allows us to provide a broad range of services, including providing financial product advice in relation to various financial products such as securities and superannuation products and deal in a financial product by applying for, acquiring, varying or disposing of a financial product on behalf of another person in respect of securities and superannuation products.

4 General financial product advice

The report contains only general financial product advice. It was prepared without taking into account your personal objectives, financial situation or needs. You should consider your own objectives, financial situation and needs when assessing the suitability of the Report to your situation. You may wish to obtain personal financial product advice from the holder of an Australian Financial Services Licence to assist you in this assessment.

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Grant Thornton Corporate Finance does not accept instructions from retail clients. Grant Thornton Corporate Finance provides no financial services directly to retail clients and receives no remuneration from retail clients for financial services. Grant Thornton Corporate Finance does not provide any personal financial product advice directly to retail investors nor does it provide market-related advice directly to retail investors.

5 Fees, commissions and other benefits we may receive

Grant Thornton Corporate Finance charges fees to produce reports, including the report. These fees are negotiated and agreed with the entity which engages Grant Thornton Corporate Finance to provide a report. Fees are charged on an hourly basis or as a fixed amount depending on the terms of the agreement with the person who engages us. In the preparation of this report, Grant Thornton Corporate Finance will receive from the Company a fee of \$110,000, which is based on commercial rates plus reimbursement of out-of-pocket expenses.

Partners, Directors, employees or associates of Grant Thornton Corporate Finance, or its related bodies corporate, may receive dividends, salary or wages from Grant Thornton Australia Ltd. None of those persons or entities receive non-monetary benefits in respect of, or that is attributable to, the provision of the services described in this FSG.

6 Referrals

Grant Thornton Corporate Finance - including its Partners, Directors, employees, associates and related bodies corporate - does not pay commissions or provide any other benefits to any person for referring customers to us in connection with the reports that we are licenced to provide.

7 Associations with issuers of financial products

Grant Thornton Corporate Finance and its Partners, Directors, employees or associates and related bodies corporate may from time to time have associations or relationships with the issuers of financial products. For example, Grant Thornton Australia Ltd may be the auditor of, or provide financial services to the issuer of a financial product and Grant Thornton Corporate Finance may provide financial services to the issuer of a financial product in the ordinary course of its business.

In the context of the report, Grant Thornton Corporate Finance considers that there are no such associations or relationships which influence in any way the services described in this FSG.

8 Independence

Grant Thornton Corporate Finance is required to be independent of Renergen in order to provide this report. The following information in relation to the independence of Grant Thornton Corporate Finance is stated below.

“Grant Thornton Corporate Finance and its related entities do not have at the date of this report, and have not had within the previous two years, any shareholding in or other relationship with Renergen (and associated entities) that could reasonably be regarded as capable of affecting its ability to provide an unbiased opinion in relation to the Offer.

Grant Thornton Corporate Finance has no involvement with, or interest in the outcome of the Offer, other than the preparation of this report.

Grant Thornton Corporate Finance will receive a fee based on commercial rates for the preparation of this report. This fee is not contingent on the outcome of the Offer.



Grant Thornton Corporate Finance's out of pocket expenses in relation to the preparation of the report will be reimbursed. Grant Thornton Corporate Finance will receive no other benefit for the preparation of this report.

9 Complaints

Grant Thornton Corporate Finance has an internal complaint handling mechanism and is a member of the Australian Financial Complaints Authority (AFCA) (membership no. 11800). All complaints must be in writing and addressed to the Head of Corporate Finance at Grant Thornton Corporate Finance. We will endeavour to resolve all complaints within 30 days of receiving the complaint. If the complaint has not been satisfactorily dealt with, the complaint can be referred to AFCA who can be contacted at:

Australian Financial Complaints Authority

GPO Box 3
Melbourne, VIC 3001
Telephone: 1800 367 287
Email: info@afca.org.au

Grant Thornton Corporate Finance is only responsible for the report and FSG. Grant Thornton Corporate Finance will not respond in any way that might involve any provision of financial product advice to any retail investor.

10 Compensation arrangements

Grant Thornton Corporate Finance has professional indemnity insurance cover under its professional indemnity insurance policy. This policy meets the compensation arrangement requirements of section 912B of the Corporations Act, 2001.

11 Contact Details

Grant Thornton Corporate Finance can be contacted by sending a letter to the following address:

Head of Corporate Finance

Grant Thornton Corporate Finance Pty Ltd
Level 17, 383 Kent Street
Sydney, NSW, 2000

11. DETAILS OF THE OFFER

11.1. The Offer

The Company intends to raise a minimum of \$5 million (before deduction of fees and costs of the Offer) via the issue of CDIs at an Offer Price of \$0.80 per CDI, with the right to accept oversubscriptions to raise up to a further \$5 million.

As the Company is incorporated in South Africa and is listed on AltX, the Company is seeking quotation of the CDIs issued pursuant to this Prospectus on ASX, whilst the Shares owned by Existing Shareholders will continue to be quoted on AltX. In accordance with South African Reserve Bank requirements, South African residents may only transfer their Shares held on the South African register to the Australian register and trade their shares on ASX with the prior approval from the South African Reserve Bank.

All CDIs will be issued at the Offer Price and will rank equally with each other and with Shares on issue before the Offer. A summary of the rights and liabilities attaching to the Shares is set out in Section 13.3.

The Offer is not underwritten.

If ASX does not admit the CDIs under the Offer to Official Quotation before the expiration of three months after the Prospectus Date, or such period as varied by ASIC, no CDIs will be issued under this Prospectus and the Company will repay all Application Monies for the CDIs under the Offer within the time prescribed under the Corporations Act, without interest.

About CDIs

The Company is incorporated under the legal jurisdiction of South Africa. To enable companies such as the Company to have their securities cleared and settled electronically through CHESS, depositary instruments called CDIs are issued. Pursuant to the ASX Settlement Operating Rules, CDI holders receive all of the economic benefits of actual ownership of the underlying Shares. CDIs are traded in a manner similar to shares of Australian companies listed on ASX.

CDIs will be held in uncertificated form and settled/transferred through CHESS. No share certificates will be issued to CDI holders. Existing Shareholders cannot trade their Shares on ASX without first converting their Shares into CDIs.

One CDI represents one underlying Share. The main difference between holding CDIs and Shares is that CDI holders hold the beneficial ownership in the Shares instead of legal title. CHESS Depositary Nominees Pty Limited (CDN), a subsidiary of ASX, will hold the legal title to the underlying Shares.

The Shares underlying the CDIs will be registered in the name of CDN and will be held on behalf of and for the benefit of the CDI holder. CDIs will be CHESS-approved from the date of Official Quotation in accordance with the ASX Listing Rules and the ASX Settlement Operating Rules. The Shares underlying the CDIs will rank equally with the Shares that the Company has previously issued.

Investors should note that there are certain differences between Shares in Reneger and ordinary shares which are typically issued by Australian incorporated public companies. A summary of the key rights attaching to CDIs and Shares is set out in Sections 13.2 and 13.3 and a comparison of the rights attaching to CDIs and Shares with rights of holders of shares in an Australian listed company is set out in Section 13.5.

Holders of CDIs can choose to have their CDIs converted to a direct holding of Shares, however, if they do so they will no longer be able to trade them on ASX but will be able to trade the Shares on the AltX. Similarly, subject to the restrictions under South African law described in Section 11.1, holders of Shares may choose to convert their Shares to CDIs to enable them to trade on ASX, as described in Section 13.2.

Composition of the Offer and eligibility to participate

The Offer is comprised of a:

- ☐ the Broker Firm Offer, which is open to Australian and New Zealand resident Retail Investors who have received a firm allocation from their broker. If you have been invited to participate by your Broker, you will be treated as an Applicant under the Broker Firm Offer in respect of that allocation. You should contact your Broker to determine whether they may allocate CDIs to you under the Broker Firm Offer;
- ☐ General Public Offer, which is open to Retail Investors resident in Australia and New Zealand; and
- ☐ Institutional Offer, which consists of an invitation to certain Institutional Investors in Australia, New Zealand, Hong Kong and Singapore.

The allocation of CDIs between the Broker Firm Offer, the General Public Offer and the Institutional Offer will be determined by the Company and the Lead Manager, having regard to the allocation policies in Section 11.6.

Discretion under the Offer

The Company reserves the right not to proceed with the Offer at any time before the allotment of CDIs under the Offer. Application Monies received by the Company will be refunded in full (without interest).

The Company reserves the right to decline any Applications in whole or in part without giving any reason. An Application may be accepted by the Company in respect of the full number of CDIs specified in the Application or part only, without further notice to the Applicant. Acceptance of an Application will give rise to a binding contract.

The Company reserves the right to close the Offer early, to accept late Applications or to extend the Offer without notifying any recipient of this Prospectus or any Applicant.

11.2. Purpose of the Offer and Source and use of proceeds

The Offer is being conducted to:

- ☐ fund drilling of additional production wells, aiming to produce gas to operate the New Plant at maximum capacity;
- ☐ partially fund a feasibility study for the commercialisation of the high concentration helium reserves contained in the Virginia Gas Project's prospective sandstone deposit (Stage Two);
- ☐ provide the Company with the ability to access the Australian capital market which, in conjunction with AltX, is aimed at providing a liquid market for the Company's securities;
- ☐ provide the Company with the benefits of an increased profile arising from being listed on ASX;
- ☐ provide the Company with additional financial flexibility and access to capital markets;
- ☐ pay the expenses of the Offer;
- ☐ for the purpose of Section 708A(11) of the Corporations Act to remove any trading restrictions on the on-sale of securities to be issued by the Company pursuant to the Offer or otherwise on issue prior to the Closing Date; and
- ☐ in relation to the Options Offer only, enable the Company to remunerate and incentivise the Options Offerees.

The proposed sources and uses of funds associated with the Offer are as follows:

Source of Funds	Minimum Subscription \$000's	Minimum Subscription ZAR000's	Minimum Subscription %	Over subscription \$'000	Over subscription ZAR000's	Over subscription %
Estimate of existing cash reserves at date of Prospectus	8,400	88,701	13.4%	8,400	88,701	12.4%
Proceeds of the Offer	5,000	52,798	8.0%	10,000	105,597	14.8%
Drawdown of OPIC Loan	49,296	520,547	78.6%	49,296	520,547	72.8%
Total Source of Funds	62,696	662,046	100.0%	67,696	714,845	100.0%
Application of Funds						
Capital expenditure for Stage One expansion	49,280	520,380	78.6%	49,280	520,380	72.8%
Stage One drilling	2,500	26,399	4.0%	2,500	26,399	3.7%
Drilling – new wells to increase production	3,000	31,679	4.8%	8,000	84,477	11.8%
Feasibility Study of developing the sandstone deposit	2,000	21,119	3.2%	2,000	21,119	3.0%
Working capital	5,152	54,400	8.2%	4,848	51,191	7.2%
Unpaid cash expenses associated with the Offer	764	8,069	1.2%	1,068	11,279	1.6%
Total Application of Funds	62,696	662,046	100.0%	67,696	714,845	100.0%

The proposed sources and uses of funds associated with the Offer (excluding the OPIC loan) are as follows. Funds will be entirely expended on Renergen's petroleum production right, which is valid for a remaining 23 years.

Source of Funds	Minimum Subscription \$'000's	Minimum Subscription ZAR000's	Minimum Subscription %	Over subscription \$'000	Over subscription ZAR000's	Over subscription %
Estimate of existing cash reserves at date of Prospectus	8,400	88,701	62.7%	8,400	88,701	45.7%
Proceeds of the Offer	5,000	52,798	37.3%	10,000	105,597	54.3%
Total Source of Funds	13,400	141,499	100.0%	18,400	194,298	100.0%
Application of Funds						
Stage One drilling	2,500	26,399	18.7%	2,500	26,399	13.6%
Drilling – new wells to increase production	3,000	31,679	22.4%	8,000	84,477	43.5%
Feasibility Study of developing the sandstone deposit	2,000	21,119	14.9%	2,000	21,119	10.9%
Working capital	5,136	54,233	38.3%	4,832	51,024	26.2%
Unpaid cash expenses associated with the Offer	764	8,069	5.7%	1,068	11,279	5.8%
Total Application of Funds	13,400	141,499	100.0%	18,400	194,298	100.0%

The above tables are a statement of current intentions as at the Replacement Prospectus date based on the Company's present plans and business conditions. Investors should note that, as with any budget, the allocation of funds set out in the above tables may change depending on a number of factors, including the timing and completion of construction of the New Plant and the success of Renergen's commercialisations activities and revenues from sales, along with market and general economic conditions. In light of this, the Board reserves its right to alter the way the funds are applied.

Following Completion, the Company will have a total pro forma cash balance of \$16.3 million (ZAR172.5million) from the Minimum Subscription and \$21.0 million (ZAR222.1 million) with oversubscriptions (having applied the pro forma adjustments described in Section 9). The Directors believe that, on Completion the Company will have sufficient working capital to carry out its objectives as stated in this Prospectus.

Any oversubscriptions will be combined with existing cash reserves to further increase the strength of the Company's balance sheet to fund the ongoing operational costs of the Company and implement the planned drilling programme in a shorter time frame than currently planned.

The Directors do not expect that the Company will need to raise more equity or debt finance in the next 12 months. The Board will consider further equity funding or share placements where it is appropriate to accelerate a specific project, transaction or expansion.

11.3. Minimum Subscription

The Minimum Subscription required for the Offer to proceed is \$5 million. If the Minimum Subscription is not obtained within 4 months after the Prospectus Date, the Company will repay all Application Monies in full without interest as soon as practicable or issue a supplementary or replacement Prospectus and allow Applicants one month in which to withdraw their Applications and be repaid their Application Monies in full (without interest).

There is no minimum subscription for the Options Offer, but it is also conditional on the Minimum Subscription being raised under the Offer.

11.4. How do I apply under the Offer?

Completing and returning your Application

What is the minimum and maximum Application under the Offer?

Applications under the Offer must be for a minimum of \$2,000 worth of CDIs.

There is no maximum amount that may be applied for under the Offer. The Company reserves the right to aggregate any Applications which it believes may be multiple Applications from the same person. The Company also reserve the right to treat any Applications under the Broker Firm Offer that are from person who they believe may be Institutional Investors, as bids in the Institutional Offer.

The Company reserves the right to reject any Applications or to allocate a lesser number of CDIs than that applied for. The allocation of CDIs will be determined by the Company in consultation with the Lead Manager.

How do I apply under the Broker Firm Offer?

If you are applying for CDIs under the Broker Firm Offer, you should complete and lodge your Broker Firm Application Form with the Broker from whom you received your firm allocation. Broker Firm Application Forms must be completed in accordance with the instructions given to you by your Broker and the instructions set out on the reverse of the Application Form.

Applicants under the Broker Firm Offer must lodge their Application Form and Application Monies with their Broker (and not to the Registry) in accordance with the relevant Broker's directions in order to receive their firm allocation.

CDIs that have been allocated to Brokers for allocation to their clients will be issued to the Applicants who have received a valid allocation of CDIs from those Brokers.

It will be a matter for the Brokers as to how they allocate CDIs among their clients, and they (and not the Company nor the Lead Manager) will be responsible for ensuring that clients who have received an allocation from them, receive the relevant CDIs.

The Company, Registry and the Lead Manager take no responsibility for any acts or omissions by your Broker in connection with your Application, Application Form and Application Monies (including, without limitation, failure to submit Application Forms by the close of the Broker Firm Offer). Please contact your Broker if you have any questions.

The Company may determine a person to be eligible to participate in the Broker Firm Offer and may amend or waive the Broker Firm Offer application procedures or requirements, in its discretion in compliance with applicable laws.

How do I apply under the General Public Offer?

In order to apply for CDIs under the General Public Offer, please complete the Application Form that is included in or accompanies this Prospectus (or a printed copy of the Application Form attached to the electronic version of the Prospectus) or apply online at www.renegergen.com.au. Application Forms must be completed in accordance with the accompanying instructions.

Any Applicants applying online must personally complete the online Application Form (you do not need to complete the physical Application Form accompanying this Prospectus) and pay the Application Monies via BPAY®.

Applicants under the General Public Offer may also apply by completing the physical Application Form and, once completed, mailing the Application Form and cheque for Application Monies so that they are received at the address of the Company's Registry set out below by the Closing Date.

Renegergen Limited

c/- Computershare Investor Services Pty Limited
GPO Box 52
Melbourne VIC 3001 Australia

How do I apply under the Institutional Offer?

The Lead Manager will individually advise Institutional Investors participating in the Institutional Offer of the Application procedure to accept the Institutional Offer.

How to pay your Application Monies under the General Public Offer

This Section applies in respect of the General Public Offer. It does not apply in respect of the Broker Firm Offer or Institutional Offer.

Application Monies may be provided by BPAY® or cheque.

Paying your Application Monies by BPAY®

Australian investors (and New Zealand investors with an Australian bank account) may apply for CDIs online and pay their Application Monies by BPAY®. Such Applicants should complete the online Application Form accompanying the electronic version of this Prospectus (which is available at www.renegergen.com.au) and follow the instructions on the online Application Form which includes the Biller Code and your unique Customer Reference Number (CRN) generated by the online Application Form.

Any Applicants applying online must personally complete the online Application Form and pay the Application Monies by BPAY®. It is your responsibility to ensure that this occurs. Application Forms completed online must not be completed by third parties, including authorised third parties (e.g. the Applicant's Broker).

You should be aware that you will only be able to make a payment via BPAY® if you are the holder of an account with an Australian financial institution which supports BPAY® transactions.

When completing your BPAY® payment, please make sure you use the specific Biller Code and your unique CRN provided on the online Application Form. If you do not use the correct CRN, your Application will not be recognised as valid.

It is your responsibility to ensure that payments are received by 5.00pm Sydney time on the Closing Date.

Your bank, credit union or building society may impose a limit on the amount that you can transact on BPAY®, and policies with respect to processing BPAY® transactions may vary between banks, credit unions or building societies.

The Company accepts no responsibility for any failure to receive Application Monies or payments by BPAY® before the Closing Date arising as a result of, among other things, processing of payments by financial institutions. You should take this into consideration when making payment.

Paying your Application Monies by cheque

For Applicants wishing to pay their Application Monies by cheque, they should complete the physical Application Form that is included in, or accompanies this Prospectus, or (for the General Public Offer) a printed copy of the Application Form attached to the electronic form of this Prospectus.

All cheques must be:

- ☐ in Australian currency;
- ☐ drawn on an Australian branch of a financial institution;
- ☐ not post-dated as cheques will be banked on the day of receipt; and
- ☐ crossed 'Not Negotiable' and made payable to "Renergen Limited".

Applicants should ensure that sufficient funds are held in the relevant account to cover your cheque(s) or bank draft(s). If the amount of your cheque for Application Monies (or the amount for which the cheque clears in time for the allocation) is insufficient to pay for the amount you have applied for in your Application Form, you may be taken to have applied for such lower amount as your cleared Application Monies will pay for (and to have specified that amount in your Application Form) or your Application may be rejected.

How to pay your Application Monies under the Broker Firm Offer and the Institutional Offer

All Application Monies under the Broker Firm Offer must be dealt with in accordance with the instructions given by your Broker and the instructions set out on the reverse of the Application Form.

In respect of the Institutional Offer, the Lead Manager will separately advise the Institutional Investors participating in the Institutional Offer of the Application procedure to make payment under the Institutional Offer.

Fees, costs and timing of Applications

When does the Offer open?

The Offer is expected to open for Applications at 9.00 am on 9 May 2019.

What is the deadline to submit an Application under the Offer?

In respect of the General Public Offer, it is your responsibility to ensure that your Application Form and Application Monies are received by the Registry before 5.00 pm (Sydney time) on the Closing Date of the Offer which is expected to be 22 May 2019 (unless closed early or extended).

In respect of the Broker Firm Offer, Applicants should return their Applications in accordance with the deadline given to them by their Broker. The Company and the Registry take no responsibility in respect of the Application Form or Application Monies which are delivered to your Broker in connection with your Application.

Is there any brokerage, commission or stamp duty payable by Applicants?

No brokerage, commission or stamp duty is payable by Applicants on the acquisition of CDIs under the Offer.

Brokerage and/or handling fees on Applications for CDIs will be payable to member firms of ASX or licensed investment advisers on such Application Forms bearing their codes and accepted by the Company. Any such brokerage or handling fees will be paid by the Lead Manager out of its offer management fees. Please see Section 12.13 for details of the fees and commission payable to the Lead Manager.

Confirmation of your Application and trading on ASX

When will I receive confirmation whether my Application has been successful?

Applicants under the General Public Offer will be able to call the Renergen Offer Information Line on 1300 140 590 (within Australia) or +61 3 9415 4109 (from outside Australia) between 9.00am and 5.00pm (Sydney time), on Monday to Friday (Business Days only) from 27 May 2019 to confirm their allocation (unless the Offer Period is extended, in which this date will also be extended).

Holding statements and confirmation advices confirming Applicant's allocations under the Offer are expected to be sent to successful Applicants on or around 28 May 2019 (unless the Offer Period is extended, in which case this date will also be extended).

Is DvP settlement available?

Delivery versus Payment (DvP) settlement is available for Applicants under the Broker Firm Offer and under the Institutional Offer. Please contact your Broker for further details.

When will I receive my CDIs and when can I trade my CDIs?

Subject to ASX granting approval for the Company to be admitted to the Official List, CDIs will be issued under this Prospectus to successful Applicants as soon as practicable after the Closing Date. Allotment is expected to occur on 27 May 2019 (unless the Offer Period is extended, in which this date will also be extended).

Trading of CDIs on ASX is expected to commence on or around 31 May 2019 on a normal T+2 settlement basis (unless the Offer Period is extended, in which this date will also be extended).

The Company, the Registry, and the Lead Manager disclaim all liability, whether in negligence or otherwise, to persons who trade CDIs before receiving their holding statements. If you sell your CDIs before receiving an initial holding statement, you do so at your own risk, even if you have obtained details of your holding from your Broker or the Renergen Offer Information Line.

11.5. Details of the Options Offer

The Options Offer under this Prospectus is the Company's offer of Options to the Options Offerees only. The Options offered to the Lead Manager are to be issued on the terms summarised in Section 13.6, the Options offered to the Corporate Adviser are to be issued on the terms summarised in Section 13.7 and the Options offered to Dr King are to be issued on the terms summarised in Section 12.9.

Only the Options Offerees can apply under the Options Offer. A personalised Options Offer Application Form will be issued to each of those parties, together with a copy of this Prospectus. The Company will only provide the Options Offer Application Forms to the persons entitled to participate in the Options Offer.

The Options under the Options Offer will be granted for nil cash consideration, accordingly no funds will be raised from the offer of Options under the Options Offer, unless they are subsequently exercised. The Options are being offered under the Options Offer in consideration for the services of the Options Offerees. If any Options are exercised, the Company presently proposes to direct those funds towards working capital (subject to the Board's discretion to direct those funds elsewhere).

Under the Options Offer:

- ☐ the Lead Manager will be issued a number of Options equal to 3% of the number of Shares on issue as at the date of Listing on ASX; and
- ☐ the Corporate Adviser will be issued a number of Options equal to 1.5% of the number of Shares on issue as at the date of Listing on ASX; and
- ☐ Dr King will be issued 1 million Options.

This is expected to result in the number of Options to be issued under the Options Offer being as follows:

Offeree	Number of Options based on Minimum Subscription	Number of Options based on \$5 million in over subscriptions
Lead Manager	3,191,573	3,379,073
Corporate Adviser	1,595,786	1,689,536
Dr King	1,000,000	1,000,000
Total	5,787,359	6,068,609

11.6. Allocation policy

The basis of allocation of CDIs under the Offer will be determined by the Company, in consultation with the Lead Manager, subject to any firm allocations under the Broker Firm Offer.

In allocating the CDIs, it is the intention of the Board to ensure that the Company has an adequate spread of Shareholders.

The Company, in consultation with the Lead Manager, reserves the right in its absolute discretion to not issue CDIs to Applicants under the General Public Offer and may reject any Application or allocate a lesser number of CDIs than those applied for at its absolute discretion.

11.7. Application Monies

All Application Monies will be held by the Registry on trust on behalf of Applicants, in a separate escrow account until CDIs are issued to successful Applicants.

Application Monies will be refunded in Australian dollars to the extent that an Application is rejected or scaled back, or the Offer is withdrawn. No interest will be paid on refunded amounts.

11.8. Shareholding structure

Key details of the Existing Shareholders and the Directors' interests in securities in the Company are set out in Section 1.7.

The following table illustrates the ownership structure of the Company before and after the Offer.

Table 12: Company ownership structure before and after Offer

	Shareholdings on Prospectus Date		Indicative shareholdings assuming Minimum Subscription		Indicative shareholdings assuming \$5 million in over subscriptions	
	Shares/CDIs	%	Shares/CDIs	%	Shares/CDIs	%
Interests associated with the Directors	17,707,964	17.68%	17,707,964	16.65%	17,707,964	15.72%
Other Shareholders	82,427,788	82.32%	82,427,788	77.48%	82,427,788	73.18%
CDIs to be issued under the Offer	-	-	6,250,000	5.87%	12,500,000	11.10%
Total	100,135,752	100.00%	106,385,752	100.00%	112,635,752	100.00%

Notes:

1. Any discrepancies between totals and sums of components in this table are due to rounding.
2. The table does not include any shares that may be issued on the exercise of any Options, including Options issued to Dr King under the Options Offer.
3. This table does not include any shares that may be issued as a result of the conversion of the convertible notes. Refer to Section 13.8 for more details.
4. Mr Olivier is an employee of Mazi Asset Management that owns 19,567,699 Shares in the Company. These shares are not included in the above table.

11.9. ASX Listing, registers and holding statements

ASX Listing

Within 7 days after the date of this Prospectus the Company will apply to ASX for admission to the Official List of ASX and for its Shares (other than the shares issued to Existing Shareholders) quoted as CDIs to be granted Official Quotation by ASX. The shares owned by the Existing Shareholders are listed on AltX.

However, Applicants should be aware that ASX will not commence Official Quotation of any CDIs under the Offer until the Company has received the approval of ASX to be admitted to the Official List. As such CDIs offered under the Offer may not be able to be traded for some time after the close of the Offer.

It is the responsibility of the Applicants to determine their allocation prior to trading in the CDIs. Applicants who sell their CDIs before they receive confirmation of their allotment will do so at their own risk.

CHESS and holding statements

The Company will apply for the CDIs to participate in ASX's CHESS and will comply with the ASX Listing Rules and the ASX Settlement Operating Rules. ASX Settlement Pty Ltd, a wholly owned subsidiary of ASX, operates CHESS in accordance with the ASX Listing Rules and the ASX Settlement Operating Rules. CHESS is an electronic transfer and settlement system for transactions in securities quoted on ASX as CDIs under which transfers are affected in an electronic form.

When the CDIs become approved financial products (as defined in the ASX Settlement Operating Rules), holdings will be registered in one of two sub-registers, being an electronic CHESS sub-register or an Issuer Sponsored sub-register.

For all successful Applicants, the CDIs of a Security holder who is participating in CHESS or a Security holder sponsored by a participant in CHESS will be registered on the CHESS sub-register. All other CDIs will be registered on the Issuer Sponsored sub-register.

Following Completion, Security holders will be sent a holding statement that sets out the number of CDIs that have been allocated to them. This statement will also provide details of a Security holder's HIN for CHESS holders or, where applicable, the SRN of Issuer Sponsored holders. Security holders will subsequently receive statements showing any changes to their holding. Certificates will not be issued.

Security holders will receive subsequent statements during the first week of the following month if there has been a change to their holding on the register and as otherwise required under the ASX Listing Rules and the Corporations Act. Additional statements may be requested at any other time either directly through the Shareholder's sponsoring broker in the case of a holding on the CHESS sub-register or through the Registry or in the case of a holding on the Issuer Sponsored sub-register.

The Company and the Registry may charge a fee for additional Issuer Sponsored statements.

11.10. Restriction on distribution

No action has been taken to register or qualify this Prospectus, the CDIs or the Offer or otherwise to permit a public offering of the CDIs in any jurisdiction outside Australia or New Zealand.

This Prospectus does not constitute an offer or invitation to subscribe for CDIs in any jurisdiction in which, or to any person to whom, it would be unlawful to make such an offer.

This Prospectus may not be released or distributed in the United States or to or for the account or benefit of US persons, and may not be distributed to persons in other jurisdictions in which it would be unlawful to make the Offer.

The CDIs have not been, and will not be, registered in the United States Securities Act of 1933, as amended (US Securities Act), and may not be offered, sold or resold in the United States or to, or for the account or benefit of US persons (as defined in Regulation S of the US Securities Act) except to Qualified Institutional Buyers (as defined in Regulation S of the US Securities Act) in transactions exempt from the registration requirements of the US Securities Act provided by Rule 144A thereunder and applicable United States state securities laws.

If you are a nominee applying for CDIs on behalf of overseas residents, you are responsible for ensuring that the Application does not breach any regulation applicable to any overseas resident.

Each Applicant will be taken to have represented, warranted and agreed as follows:

- ☐ it understands that the CDIs have not been, and will not be, registered under the US Securities Act 1933 or the securities law of any state of the United States and may not be offered, sold or resold in the United States, or to or for the account or benefit of US persons, except in a transaction exempt from, and not subject to, registration under the US Securities Act 1933 and any other applicable securities laws;
- ☐ it is not in the United States or a US person, and is not acting for the account or benefit of a US Person;
- ☐ it has not and will not send the Prospectus or any other material relating to the Offer to any person in the United States or to any person that is, or is acting for, the account or benefit of, a US Person; and
- ☐ it will not offer or sell the CDIs in the United States or to, or for the account or benefit of, any US person or any other jurisdiction outside Australia except in transactions exempt from, or not subject to, registration under the US Securities Act 1933 and in compliance with all applicable laws in the jurisdiction in which CDIs are offered or sold.

Any offer, sale or resale of CDIs in the United States by a dealer (whether or not participating in the Offer) may violate the registration requirements of the US Securities Act 1933 if made prior to 40 days after the date on which the Offer Price is determined and the CDIs are allocated under the Offer or if such CDIs were purchased by a dealer under the Offer.

It is the responsibility of Applications outside Australia to obtain all necessary approvals for the issue of the CDIs pursuant to this Prospectus. Lodgement of Application Forms accompanied by the relevant Application Monies will be taken by the Company to constitute a representation and warranty from you that no breaches of any such regulations have occurred. Applicants who are nominees, or persons proposing to act as nominees, should seek independent advice as to how they should proceed.

Hong Kong

WARNING: This Prospectus 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). No action has been taken in Hong Kong to authorise or register this Prospectus or to permit the distribution of this Prospectus or any documents issued in connection with it. Accordingly, the CDIs have not been and will not be offered or sold in Hong Kong other than to "professional investors" (as defined in the SFO).

No advertisement, invitation or document relating to the CDIs 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 CDIs that are or are intended to be disposed of only to persons outside Hong Kong or only to professional investors (as defined in the SFO and any rules made under that ordinance). No person allotted CDIs may sell, or offer to sell, such securities in circumstances that amount to an offer to the public in Hong Kong within 6 months following the date of issue of such securities.

The contents of this Prospectus 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 Prospectus, you should obtain independent professional advice.

United Kingdom

The information contained in this Prospectus is only being made, supplied or directed at persons in the United Kingdom who are qualified investors within the meaning of section 86(7) of the Financial Services and Markets Act (as amended) (FSMA), and the CDIs are not being offered or sold and will not be offered or sold to the public in the United Kingdom (within the meaning of section 102B of the FSMA), save in circumstances where it is lawful to do so without an approved Prospectus (within the meaning of section 85 of FSMA) being made available to the public before the Offer is made. In addition, in the United Kingdom no person may communicate or cause to be communicated any invitation or inducement to engage in investment activity (within the meaning of section 21 of FSMA) received by it in connection with the issue or sale of any CDIs except in circumstances in which section 21(1) of FSMA does not apply to the Company and this Prospectus is made, supplied or directed at qualified investors in the United Kingdom who are (i) persons having professional experience in matters relating to investments who fall within the definition of “investment professionals” in article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotions) Order 2005 (as amended) (FPO); or (ii) high net worth bodies corporate, unincorporated associations and partnerships and trustees of high value trusts as described in article 49 of the FPO or (iii) persons who fall within another exemption to the FPO (all such persons being Relevant Persons). Any investment or investment activity to which this Prospectus relates is available only to Relevant Persons and will be engaged only with Relevant Persons. Each recipient of this Prospectus in the United Kingdom is deemed to confirm, represent and warrant to the Company that they are a Relevant Person.

Any investor who has received CDIs under this Offer that subsequently seeks to sell those CDIs to other persons in the United Kingdom will need to consider its own position under the Prospectus regime and financial promotion regime as well as the documentation necessary to effect a transfer of CDIs if the sale is to be made outside the market of ASX.

Singapore

This Prospectus and any other materials relating to the CDIs have not been, and will not be, lodged or registered as a Prospectus in Singapore with the Monetary Authority of Singapore. Accordingly, this Prospectus and any other document or materials in connection with the offer or sale, or invitation for subscription or purchase, of CDIs, may not be issued, circulated or distributed, nor may the CDIs 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 XIII of the Securities and Futures Act, Chapter 289 of Singapore (the SFA), or as otherwise pursuant to, and in accordance with the conditions of any other applicable provisions of the SFA.

This Prospectus has been given to you on the basis that you are (i) an existing holder of the Company's shares, (ii) an “institutional investor” (as defined in the SFA) or (iii) a “relevant person” (as defined in Section 275(2) of the SFA). In the event that you are not an investor falling within any of the categories set out above, please return this Prospectus immediately. You may not forward or circulate this Prospectus to any other person in Singapore.

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

New Zealand

This Prospectus has not been registered, filed with or approved by any New Zealand regulatory authority under the Financial Markets Conduct Act 2013 (the FMC Act). The CDIs 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:

- ☐ is an investment business within the meaning of clause 37 of Schedule 1 of the FMC Act;
- ☐ meets the investment activity criteria specified in clause 38 of Schedule 1 of the FMC Act;
- ☐ is large within the meaning of clause 39 of Schedule 1 of the FMC Act;
- ☐ is a government agency within the meaning of clause 40 of Schedule 1 of the FMC Act; or
- ☐ is an eligible investor within the meaning of clause 41 of Schedule 1 of the FMC Act.

South Africa

The Offer or invitation which is the subject of this Prospectus is not being made to and is not capable of acceptance by, anyone in South Africa. The Offer does not constitute an “offer to the public” for purposes of the Companies Act and, in connection with the making of the Offer:

- ☐ no prospectus is being issued under the Companies Act (or registered with the Companies and Intellectual Property Commission (CIPC); and
- ☐ this Prospectus is not a “registered prospectus” for purposes of the Companies Act (and has not been registered with CIPC).

No advertisement relating to the Offer and drawing the attention of the public in South Africa to the Offer, has been or will be made in South Africa.

12. MATERIAL CONTRACTS

The Directors consider that the material contracts described below are those which an investor would reasonably regard as material and which investors and their professional advisors would reasonably expect to find described in this Prospectus for the purpose of making an informed assessment of an investment in the Company under the Offer.

Section 12 contains a summary of the material contracts and their substantive terms which are no otherwise disclosed elsewhere in this Prospectus.

12.1. Loan to Tetra4

On 13 March 2018, the Company (the **Lender**) entered into an agreement with Tetra4 (the **Borrower**) whereby the parties confirmed that the Company had made a loan of ZAR134,761,065 to Tetra4 which may be increased or decreased by the Lender from time to time (the **Tetra4 Loan**). The choice of loan to capitalise Tetra4 as opposed to equity is to prevent dilution of the Black Economic Empowerment partner's 10% stake and is to be repaid before Tetra4 declares dividends.

The Parties also acknowledged that:

- the Tetra 4 Loan shall be unsecured and subordinated at all times, during the term of the Subordinated Loan, to the claims, demands, rights and causes of action of all unsubordinated creditors;
- the Company agrees with the Borrower not to prove or claim, in the event of the insolvency of the Borrower, for the repayment of the Tetra4 Loan in competition with any unsubordinated creditor or which would in any way diminish any distribution, dividend or payment which, but for such proof or claim, the unsubordinated creditor would be entitled to receive;
- the amounts owing in respect of the Amount, shall be interest free;
- the Lender reserves the right to give the Borrower 3 months' written notice of its intention to start charging interest at Prime, where it deems the economics of Borrower's operations not in line with its financial budgeting; and
- the Borrower shall repay the Tetra4 Loan amount (or part thereof) on any date (and in such amount) required by the Lender.

12.2. Commitment Letter from the Overseas Private Investment Corporation

Referred to in Section 9.10, on 14 February 2019, OPIC committed to providing Tetra4 with a debt funding facility (guaranteed by the Company) of up to US\$40 million (a principal amount of US\$35 million plus US\$5 million cost-overrun contingency) to Tetra4 over a 12-year period (the **OPIC Agreement**).

The terms and conditions are set out in a legally binding Commitment Letter between the parties. The funding from OPIC will be used to finance Tetra4's development of its proposed New Plant at the Virginia Gas Project, aiming to construct a facility for the daily production of 2,700 GJ of LNG and approximately 350 kgs of liquid helium. OPIC has various customary rights to terminate the Commitment Letter, as well as a termination right if OPIC is not satisfied with the results of its due diligence.

The key terms of the OPIC Agreement include:

- a 30-month grace period on repayments of the principal amount and following this period, repayments to be made in approximately equal quarterly instalments;
- an interest rate of 4% plus the rate necessary to fund the loan through OPIC's certificates of participation, which are to be marketed to third party investors by a placement agent on documentation satisfactory to OPIC;
- an obligation to pay various fees and reimburse various expenses;
- a security interest granted to OPIC over the shares in Tetra4 as well as the assets of Tetra4 and the Company (as guarantor of Tetra4's obligations as borrower);
- no option to convert repayments into Securities;
- a mechanism for funding the loan through the marketing of OPIC certificates of participation, with OPIC having no liability if any portion of the loan cannot be provided on terms satisfactory to OPIC, the Company or Tetra4;
- Tetra4 is to maintain its financial performance pursuant to financial ratio covenants and comply with OPIC policy regarding environmental, health, safety, social performance and labour standards;
- on or before 30 September 2019 the parties will enter into the formal OPIC agreement to document the terms and conditions of the loan, including conditions precedent customary for a loan facility of this nature, as well as that OPIC completes its due diligence and receives satisfactory feasibility studies and appraisals, independent engineer's final report and evidence that all required land rights have been obtained; and
- the parties will enter into any other security documents as required to give effect to the obligations set out in the OPIC Agreement and to provide collateral security satisfactory to OPIC, such as a pledge of shares in Tetra4, subordination agreement or mortgage bond over the plant site and liquefaction site.

The Commitment Letter and the OPIC Agreement will be governed by the laws of New York, the United States of America.

12.3. Loan from Molopo Energy Limited

Renegen has a ZAR50 million loan agreement with Molopo Energy Limited. This agreement is explained in Section 9.10.

12.4. Tetra4 shareholder loan

Tetra4 formerly owned by Windfall Energy Proprietary Limited (100%) (Windfall). Windfall then sold 10% of Tetra4 to Cheryl Sjoberg for ZAR5.5 million which was financed by way of a loan from Windfall to Cheryl Sjoberg (**Windfall Loan Agreement**). The parties also entered into a pledge and cession agreement under which the shares acquired by Cheryl Sjoberg were pledged back to Windfall as security until the loan was repaid (**Pledge and Cession Agreement**).

Windfall Loan Agreement

The Windfall Loan Agreement provides that:

- the loan amount is ZAR5.5 million (the **Windfall Loan**);
- the Windfall Loan shall be repaid over a 10 year term, however the Windfall Loan is also repayable on demand;
- the Windfall Loan shall be secured by way of a pledge and cession;
- the Windfall Loan is interest free; and
- all dividends accruing on Cheryl Sjoberg's shares will be applied towards repayment of the Windfall Loan.

In addition to repayment of the Windfall Loan by way of applying dividend payments, the Windfall Loan may also be repaid where Cheryl Sjoberg raises capital in Tetra4 by virtue of her business relationships to a value of at least ZAR10 million, on favourable terms as accepted by Tetra4. The Windfall Loan is not convertible into Shares.

Pledge and Cession Agreement

Under the Pledge and Cession Agreement, Cheryl Sjoberg pledged all of her interest in Tetra4 and surrendered all of her rights, title and interest in Tetra4 to Windfall as security for the Windfall Loan.

Where an event of default occurs and is not remedied, Windfall is authorised to:

- exercise all or any of the rights powers and privileges and enforce all or any obligations attaching to the pledged shares and ceded rights;
- receive payment for, delivery of and/or performance in respect of the pledged shares and ceded rights;
- sell or otherwise realise the pledged shares and ceded rights;
- acquire the pledged shares and ceded rights at a fair value;
- convey legal title to the pledged shares and ceded rights to any purchaser; and
- institute legal proceedings in connection with any sale.

The net proceeds of any sale will be applied towards the reduction or discharge of the Windfall Loan.

Windfall Energy assigned its rights and obligations under the Windfall Loan Agreement and the Pledge and Cession Agreement to Renegen Limited on 11 November 2015 following Renegen's acquisition of Windfall Energy's 90% interest in Tetra4.

12.5. Production Right Agreement

On 20 September 2012, Tetra4 was granted a production right for petroleum in respect of the production area (as defined in the agreement and totalling 187,427 hectares) by South Africa.

Tetra4 has the right under the agreement to apply for separate production rights in respect of separate discoveries. The rights granted to Tetra4 under the agreement include (but are not limited to):

- right to enter the production area and bring necessary equipment onto the area;
- sole and exclusive right to carry out production operations, explore for petroleum and if applicable conduct appraisal operations on or under the production area for its own account;
- exclusive right to own, use, produce, remove, take in kind, lift, transport, export and dispose of any petroleum including by-products, found in the production area, whether within or outside of the state, at prices obtained by Tetra4; and
- right to carry out any incidental activities to the production operations.

Tetra4 has various obligations under the agreement including compliance with certain programmes, the social and labour plan, environmental management programme and the payment of all amounts due to South Africa under the laws of South Africa.

The production right will commence on the effective date and, unless abandoned, cancelled, relinquished, suspended, terminated, extended or renewed in accordance with the agreement will continue to be in force and effect until 30 years after the effective date.

Upon application by Tetra4 prior to the end of the 30-year period, or of any renewal period, the production right shall be renewed by the Minister of Mineral Resources of South Africa (the Minister) in accordance with the relevant laws.

Tetra4 must pay royalties to South Africa in accordance with the royalty legislation read with the Royalty Stability Agreement if entered into between the Minister and Tetra4.

The Minister may cancel or suspend the production right in circumstances set out and in accordance with the provisions of section 47 of the Mineral and Petroleum Resources Development Act 2002 (Act no. 28 of 2002)).

Tetra4 may, upon giving no less than 180 days' notice, abandon its production right by relinquishing the entire production area to South Africa.

12.6. Gas Supply Agreements

Megabus

On 31 October 2014, Tetra4, through former related entity Molopo South Africa Exploration and Production (Pty) Ltd, and Unitrans Passenger (Pty) Limited (registered in South Africa, number 1968/008699/07, Megabus or the Customer) entered into a Gas Supply Agreement that is governed by the laws of South Africa and has been supplying Megabus with compressed natural gas (CNG) since May 2016 to its bus depot in Virginia in the Free State. Megabus purchased 10 buses from Scania AB, which are dedicated to the use of CNG for fuel. Since this time, it has operated the buses without experiencing any incidents. The initial term of the agreement is 5 years. Once the initial term lapses, the agreement will be automatically renewed for a further period of 6 months, subject to the parties' rights to terminate on three months prior written notice at any time. If either party breaches any of its obligations (deemed as material) and the breach is not rectified within 14 days of the receipt of a written notice, the aggrieved party becomes entitled to claim specific performance or terminate the agreement and claim damages.

The gas supplied will be used to fuel buses and the price of gas is to be determined by subtracting from the wholesale list price of diesel. If the agreement is extended, a new price may be negotiated provided that Tetra4 maintains its agreement to provide Megabus with a reduction in fuel costs by using gas rather than diesel. Megabus is to make payment to Tetra4 within 30 days of the issue of a statement.

Anheuser-Busch

On 21 May 2018, Tetra4 and a subsidiary of Anheuser-Busch, The South African Breweries Pty Ltd (registered in South Africa, number 1998/006375/07, SAB or the Customer), entered into two natural gas exclusive supply agreements (governed by the laws of South Africa), one for the supply of CNG to 15 trucks at its operations in Alrode, Johannesburg, and the second for the supply of LNG for 50 trucks when the Virginia Gas Project becomes operational. The CNG operation is currently undergoing construction and should be operational within H1 2019. The initial term of this agreement is 1 year, commencing on 18 September 2019, with an option to terminate by written notice exercisable by the Customer 3 months before the end date. The 2-year term of the LNG agreement commences one month after the date of completion of the Virginia Gas Project expansion, which is a condition precedent to the agreement. Both agreements are subject to conditions that Tetra4 purchases mobile refuelling units, certified as compliant, and provides confirmation to the customer that all conditions are satisfied.

The gas supplied will be used as fuel for trucks and the price of gas is to be determined by subtracting agreed discounts from the wholesale list price of diesel (not including taxes). If the agreement is extended, a new price may be negotiated, however Tetra4 agreed to ensure that the customer sees a cost reduction in fuel costs by using gas rather than diesel. The Customer must make payment to Tetra4 within 120 days (LNG agreement) and 30 days (CNG agreement) of the issue of a statement. Tetra4 will only deliver gas to the specified delivery sites, unless an alternative written agreement is made between the parties. Gas supply is determined through a metering system and these measurements (in litres) are used to calculate the price per litre of the supply.

Where either party breaches any of its obligations (deemed as material) and that breach is not rectified within 30 days of receipt of a written notice, the aggrieved party becomes entitled to claim specific performance or terminate the agreement and claim damages. Claims for indirect or consequential losses are specifically excluded. A party may also terminate for convenience where the other party is negligent in the performance of its contractual obligations, or becomes insolvent or subject to insolvency proceedings. Where a specified force majeure event occurs, including, war, civil disturbance, acts of terrorism, storm, industrial dispute, strikes, quarantine and acts of god, parties will be exempt from liability arising from a failure to perform any of their obligations. In the event that one party violates any applicable provisions of the South African Prevention and Combating of Corrupt Activities Act 12 of 2004 or the US Foreign Corrupt Practices Act of 1977 (15 U.S.C 78dd-1, et seq.), the other party may terminate the agreement without compensation or reimbursement for any goods supplied after the date of the violation (together, the **Termination Rights**).

A party can cede or assign its rights or obligations under the agreements with the prior written consent of the other party. A change of control in the ownership of SAB or the disposition of all or any of its assets will not affect the rights of Tetra4 under the agreements.

Black Knight Logistics

On 14 February 2019, Tetra4 and Black Knight Logistics (the **Customer**) entered into a gas supply agreement (governed by the laws of South Africa) for the supply of LNG to 100 trucks at its operations in Alrode, Johannesburg conditional on and effective when the Virginia Gas Project commences its operations. The initial term of the agreement is 5 years with automatic renewal periods of 6 months subject to the parties' rights to terminate on three months prior written notice at any time after the expiry of the initial term. This agreement is subject to conditions that Tetra4 purchases mobile refuelling units, certified as compliant, and provides confirmation to the customer that all conditions are satisfied.

The gas supplied will be used as fuel for trucks and the price of gas is to be determined by subtracting an agreed discount from the wholesale list price of diesel. If the agreement is extended, a new price may be negotiated however Tetra4 agreed to ensure that the customer sees a reduction in fuel costs by using gas rather than diesel. The Customer must pay Tetra4 within 30 days of the issue of a statement.

The Termination Rights also apply to the supply of gas by Tetra4 to Black Knight Logistics. In addition, if the Customer terminates prior to the end date of the agreement for convenience, the Customer becomes liable for all actual costs incurred by Tetra4 up to the date of termination, and Tetra4 may make additional claims for reimbursement and to cover the costs of the removal of equipment. A party can cede or assign its rights or obligations under the agreements with the prior written consent of the other party. A change of control in the ownership of Black Knight Logistics or the disposition of all or any of its assets will not affect the rights of Tetra4 under the agreements.

12.7. Helium Purchase and Sales Agreement with Linde Global Helium

On 3 May 2016, Tetra4 entered into an agreement with Linde Global Helium (governed by the laws of South Africa) under which Tetra4 will supply at least 80% of the helium produced at its proposed expanded plant at the Virginia Gas Project to Linde for a price of US\$200.00/mcf adjusted on a dollar-for-dollar basis against any change in the US Consumer Price Index. There are also mechanisms in the agreement for the parties to re-determine the price after 5 years from the Commencement Date so that the re-determined price applies to the remainder of the term.

The initial term of the agreement is a 10-year period, which commences on the date that the Virginia Gas Project facility commences its operations for the production, purification, liquefaction and storage of helium (Commencement Date). Tetra4 is required to notify Linde Global Helium 6 months in advance of the projected Commencement Date. Linde Global Helium has an option to extend the agreement for an additional 10-year period, provided that Tetra4 continues its helium extraction operations (giving notice to Linde Global Helium not later than 24 months after the last day of the initial term) and the parties agree to a base price for the extended term.

Linde Global Helium may, as its sole remedy, terminate the agreement in the event that Tetra4 fails to deliver the minimum monthly volume requirements specified under the agreement over a period of 6 consecutive months by providing 90 days prior written notice to Linde Global Helium. Either party can terminate the agreement where Tetra4's operations and extraction of helium from the reserve located at the Virginia Plant Project permanently ceases, or by reason of the other party's material breach of its obligations under the agreement, where such breach was not cured within 30 days of the notice of breach. Linde Global Helium may also terminate the agreement in the event of an extended delay in the estimated Commencement Date or period subject to a force majeure event that persists for at least 180 days.

Linde Global Helium has take-or-pay obligations that require Tetra4 to sell and Linde Global Helium to take and pay, or pay if not taken, 80% of the output of the helium produced at Tetra4's plant up to:

- the maximum annual volume in any contract year, being the lesser of 80% of 24,000 mcf of helium and the actual volume of helium produced at Tetra4's plant during the applicable contract year; and
- the maximum volume in any calendar month, being the lesser of 80% of 2,000 mcf of helium and the actual volume of helium produced at Tetra4's plant during the applicable calendar month.

Tetra4 may sell excess volumes to other customers at its discretion, provided that such sales do not conflict with Linde Global Helium's contractual rights. Tetra4 is required to reserve and maintain in a good condition at least 4 parking bays at its helium production plant for the delivery vehicles and containers provided by Linde Global Helium.

No prior written consent is required from either party to assign its rights and obligations under the agreement to a wholly-owned subsidiary or entity which it controls, or to an entity that takes control of all or substantially all of that party's assets by way of sale or merger.

Linde Global Helium has "first look" rights to establish terms and conditions for a binding agreement for the purchase of helium from any of Tetra4's new development projects.

12.8. Key Employment Agreements

Stefano Marani

The Company has entered into an executive services agreement with Mr Stefano Marani in respect to his employment as the CEO on 20 November 2014. The principal terms of this are as follows:

- Mr Marani will receive an annual salary of ZAR2,930,982;
- Mr Marani may terminate the agreement by giving 12 weeks' notice in writing to the Company; and
- the Company may terminate the agreement (without cause) by giving 12 weeks' notice in writing to the Company.

Nick Mitchell

The Company has entered into an executive services agreement with Mr Nick Mitchell in respect to his employment as the Chief Operating Officer of the Company on 25 November 2015. The principal terms of this agreement are as follows:

- Mr Mitchell will receive an annual salary of ZAR2,930,982;
- Mr Mitchell may terminate the agreement by giving 12 weeks' notice in writing to the Company; and
- the Company may terminate the agreement (without cause) by giving 12 weeks' notice in writing to the Company.

Fulu Ravele

The Company has entered into an executive services agreement with Ms Fulu Ravele in respect to her employment as the CFO on 25 November 2015. The principal terms of this agreement are as follows:

- Ms Ravele will receive an annual salary of ZAR2,156,721.96;
- Ms Ravele may terminate the agreement by giving 12 weeks' notice in writing to the Company; and
- the Company may terminate the agreement (without cause) by giving 12 weeks' notice in writing to the Company.

12.9. Non-Executive Directors' Letters of Appointment

The Company has entered into letters of appointment with each of the Independent Non-Executive Directors in respect of each of their proposed appointments as Non-Executive Directors of the Company. The letters of appointment are each in standard form and detail in nature of each proposed Non-Executive Director's appointment, duties and remuneration entitlements.

Remuneration

Their fee structure is aligned to the King IV remuneration guidelines that Non-Executive Directors receive a base fee for appointment to the Board or any committee, together with an attendance fee per meeting. The chairman of the Board or any committee receives a higher fee.

The appointment of Non-Executive Directors is initially considered and resolved by the Board, thereafter ratified by Shareholders and is duly approved at the AGM. The remuneration is based on proposals from the Board as is duly approved. In line with best governance practice, Non-Executive Directors do not participate in incentive schemes and their term of office is governed by the Company's Memorandum of Incorporation, which provides that at least one-third of the Directors will retire by rotation, but may, if eligible, offer themselves for re-election.

The remuneration of the Executive Directors is reviewed by the GETSC annually and approved by the Board.

It is further presented and voted on by the Shareholders at the next AGM.

Table 13: Executive Directors' fees

Type of Fee	Fee for the year ended 28 February 2018	Fee for the year ended 28 February 2019
Annual Retainer		
Board		
Chairperson	ZAR172,800	ZAR172,800
Member	ZAR86,400	ZAR86,400
Committees		
Chairperson	ZAR86,400	ZAR86,400
Member	ZAR43,200	ZAR43,200
Per Meeting Fees		
Board		
Chairperson	ZAR21,600	ZAR21,600
Member	ZAR21,600	ZAR21,600
Committees		
Chairperson	ZAR21,600	ZAR21,600
Member	ZAR21,600	ZAR21,600

Dr David King's Options

In addition to the above, under this Prospectus Dr King is offered 1,000,000 European Options over CDIs with a strike price of \$0.96.

The Options offered to Dr King will vest (and become exercisable) on each of the first four anniversaries of his appointment at the rate of 250,000 for each completed year of service. The Options are exercisable only on their vesting date and will lapse on that date if not exercised. Any Options which have not vested at the date that Dr King ceases to be engaged as a Director by the Company, will automatically lapse unless otherwise determined by the Board.

The Options offered to Dr King are otherwise on the same terms as those for the Lead Manager, as set out in Sections 13.6(d) to (m).

Appointments cease

Appointment shall cease if a Non-Executive Director:

- resigns;
- is disqualified under the Companies Act, Corporations Act or the Memorandum of Incorporation from being a company director; or
- is removed as a director in accordance with the Companies Act, Corporations Act or the Memorandum of Incorporation.

12.10. Operating contracts – general

As operating commercial businesses, the Company and Tetra4 are party to numerous standard business contracts, including but not limited to:

- (a) employee and contractor agreements;
- (b) finance arrangement and guarantees;
- (c) supply or purchase agreements; and
- (d) lease and sub-lease agreements.

The terms and conditions of all of the above mentioned standard business contracts have not been disclosed as none are deemed to be material by the Company.

12.11. Employee Incentive Plan**Introduction**

The Company has adopted a Bonus Share Plan (BSP), approved by the JSE on 31 May 2017, which is compliant with leading local and global best practice and will align employee and Shareholder interests and serve to incentivise and retain participants. In terms of the BSP a portion of the annual short-term incentive is paid out in cash and a portion is automatically deferred and delivered as bonus Shares (Bonus Shares).

The Bonus Shares will be subject to the employment condition, which is the requirement for continued employment of the participant by Renergen for the duration of the vesting period.

Eligible employees will include Executive Directors, prescribed officers, senior management and key employees of Reneger. Participation in the BSP is not a condition of employment, and the Governance, Ethics and Transformation, Social, Compensation Committee (GETSC) has the absolute discretion to make an award to any employee in terms of the BSP.

In terms of the BSP, the participants receive Bonus Shares in the form of forfeitable shares and will become owners of the Bonus Shares from the settlement date, shortly after the award date, and will immediately benefit from dividends and have Shareholder voting rights in respect of the Bonus Shares over the vesting period. The Bonus Shares cannot be disposed of by the participant prior to the vesting date and will be subject to forfeiture and disposal restrictions until the vesting date. To affect any forfeiture of awards, the Bonus Shares will be held by an escrow agent on behalf of the participant until they vest.

Basis of awards and award levels

In line with best practice, regular, annual awards of Bonus Shares will be made on a consistent basis to ensure long-term Shareholder value creation. Award levels will be aligned with market benchmarks.

The number of Bonus Shares awarded to participants will be based on a percentage of the annual bonus that is deferred and delivered as Bonus Shares. Therefore, if no bonus is received in a year, the employee will not be eligible to receive an award of Bonus Shares.

Overall award levels will be decided by the GETSC each time that awards are made, by taking into account the particular circumstances at that time e.g. company affordability, retention considerations, and exceptional company performance. Annual awards will be benchmarked and set to a market-related level of remuneration whilst considering the overall affordability thereof to the Company.

Manner of settlement

Following the making of an award of under the BSP, settlement shall take place within 30 (thirty) days of the award date. The rules of the BSP are flexible in order to allow for settlement in any of the following manners:

- by way of a market purchase of shares;
- use of treasury shares; or
- issue of shares.

The exact method of settlement will be determined by the GETSC on a case by case basis.

Limits and adjustments

Company limit

The aggregate number of shares which may be settled in terms of the BSP shall not exceed 3,970,630 shares (**Company Limit**), which equates to approximately 5% of the number of issued shares at the date of adoption of the BSP.

In calculating the limit for the BSP, shares issued by the Company or shares held in treasury account which have been used by the Company for settlement, will be included in the Company Limit. This limit will be calculated to exclude shares purchased in the market in settlement and Bonus Shares awarded under the BSP which do not subsequently vest due to forfeiture.

The GETSC must, where required, adjust the company limit (without the prior approval of Shareholders in a general meeting), to take account of a sub-division or consolidation of the shares of the company.

The issue of shares as consideration for an acquisition, and the issue of shares for cash or a vendor consideration placing will not be regarded as a circumstance that requires any adjustment to the Company Limit.

Individual limit

The maximum number of shares settled and vested to any participant under the BSP in will shall not exceed 794,126 shares, which equates to approximately 1% of the number of issued shares at the date of adoption of the BSP.

For the avoidance of doubt shares which are forfeited, will not be included in the limit.

Consideration

The Participant will give no consideration for and award of shares under the BSP.

Termination of employment

“Fault Termination”

Participants terminating employment due to resignation or dismissal on grounds of misconduct, poor performance, dishonest behaviour or fraudulent conduct or on the basis of abscondment will be classified as “Fault Terminations” and will forfeit all unvested awards of Bonus Shares.

“No Fault Terminations”

Participants terminating employment due to death, ill-health, disability, injury, retrenchment (except to the extent that it constitutes fault termination as set out above), or the sale of a subsidiary company prior to the vesting date, will be classified as “No Fault Terminations” and the following treatment will apply Bonus Shares:

- a portion of the award(s) not vested shall vest on date of termination of employment. The portion of the award which shall vest will reflect the number of complete months’ service since the award date to the date of termination of employment over the total number of months in the employment period. The portion of the award that does not vest will lapse.
- in the event of participants terminating employment due to retirement, the GETSC will have the discretion to apply the treatment above with regard to other “No Fault Terminations” or to allow the participant to continue to participate in the BSP in accordance with the provisions of the rules.

Change of control

In the event of a change of control of the Company occurring before the vesting date of any award, a portion of the award will vest. The GETSC, having regard to such professional advice as they consider appropriate in the circumstances, has an absolute discretion to accelerate vesting of a portion of awards.

In exercising their discretion, the GETSC may consider the number of complete months served since the award date to the change of control date over the total number of months in the employment period. The portion of the award that does not vest as a result of change of control, will lapse.

Variation of share capital

In the event of a variation in share capital such as a capitalization issue, subdivision of shares, consolidation of shares etc., participants shall continue to participate in the BSP. The GETSC may make such adjustment to the award or take such other action to place participants in no worse a position than they were prior to the happening of the relevant event.

The issue of Shares as consideration for an acquisition, and the issue of Shares for a vendor consideration placing will not be regarded as a circumstance that requires any adjustment to the Shares.

Liquidation

If the Company is placed into liquidation, other than for purposes of reorganisation, any awards under the BSP shall ipso facto lapse as from the liquidation date. Therefore, any unvested Bonus Shares will lapse.

Amendment

The GETSC may alter or vary the rules of the BSP as it sees fit, however amendments to these terms and conditions may only affect awards that have already been offered to participants if they are to the advantage of the participants, subject to the JSE Listings Requirements and in the following instances the BSP may not be amended without the prior approval of the JSE and a resolution by the Shareholders of 75% of the voting rights:

- the category of persons who are eligible for participation in the BSP;
- the number of shares which may be utilised for the purpose of the BSP;
- the individual limitations on benefits or maximum entitlements;
- the basis upon which awards are made;
- the amount payable upon the award, settlement or vesting of an award;
- the voting, dividend, transfer and other rights attached to the awards, including those arising on a liquidation of the Company;
- the adjustment of awards in the event of a variation of capital of the Company or a change of control of the Company; and
- the procedure to be adopted in respect of the vesting of awards in the event of termination of employment.

12.12. Escrow Arrangements and Restricted Securities

No Shareholder will be subject to ASX-imposed or other restrictions on disposing of Shares issued under the Offer.

Restriction agreements are anticipated to be entered into in compliance with the ASX Listing Rules, with a Related Party of the Company and promoters (as defined by the ASX Listing Rules) in respect of the Options to be issued to the Lead Manager and the Corporate Adviser under the Options Offer. Otherwise, on Completion the Company’s issued Options will only be those issued to Dr King.

Each for a restriction period of 24 months from the date the Company is listed on the Official List.

The Lead Manager and the Corporate Adviser have agreed to enter into Restriction Agreements in respect of their Restricted Securities as required under ASX Listing Rules, which prevents them from disposing of Restricted Securities (including any CDIs issued on exercise of any Option) for the applicable restriction period. The restrictions on the holder of Restricted Securities included prohibition on selling, assigning, transferring or otherwise disposing of any interest in the Restricted Securities (or agreeing to do any of those things), granting, or agreeing to grant, a securities interest over the Restricted Securities, doing, or omitting to do, any act if the act or omission would have the effect of transferring effective ownership or control of any of the Restricted Securities.

Under ASX Listing Rule 9.17, subject to certain conditions, ASX may consent to the removal of certain restriction in respect of Restricted Securities to enable the holder of Restricted Securities to accept a takeover bid or to enable Restricted Securities to be transferred or cancelled as part of a scheme of arrangement under Part 5.1 of the Corporations Act.

12.13. Lead Manager Agreement

The Company has appointed the Lead Manager to act as the lead manager to the Offer. In consideration for its services, the Lead Manager will receive Options described in Section 13.6. In addition, the Lead Manager will be entitled to be reimbursed for reasonable out of pocket expenses incurred in connection with the Offer and to an offer management fee of 6% of the funds raised under the Offer, out of which all brokerage fees are payable.

Under the terms of the Lead Manager Agreement, the Lead Manager will have the first right of refusal to act as lead manager to any capital raising that the Company or its related bodies corporate undertakes in the 12 months following Completion.

The Lead Manager Agreement contains covenants, warranties, representations and indemnities that are customary for such agreements.

12.14. Corporate Adviser Agreement

The Company has appointed the Corporate Adviser to act as the corporate adviser to the Offer. In consideration for its services, the Corporate Adviser will receive a fee of up to \$150,000 based on hourly rates, a retainer of \$5,000 per month during the Offer Period, an additional fee of the greater of \$125,000 or 1% of the total amount raised under the Offer and Options described in Section 13.7. In addition, the Corporate Adviser will be entitled to be reimbursed for reasonable out of pocket expenses incurred in connection with the Offer.

13. ADDITIONAL INFORMATION

13.1. Corporate Information

Renergen is registered in South Africa, having been incorporated in Johannesburg, South Africa on 30 September 2014 with registration number 2014/195093/06 and is regulated by the South African Companies Act. The Company is not a tax resident of Australia.

13.2. CHESS Depositary Interests

What are CDIs

The Company is incorporated under the legal jurisdiction of South Africa. To enable companies such as the Company to have their securities cleared and settled electronically through CHESS, Depositary Instruments called 'CDIs' are issued.

Each CDI represents one underlying Share. The main difference between holding CDIs and Shares is that CDI holders hold the beneficial ownership in the Shares instead of legal title. CHESS Depositary Nominees Pty Limited (CDN), a subsidiary of ASX, will hold the legal title to the underlying Shares.

Pursuant to the ASX Settlement Operating Rules, CDI holders receive all of the economic benefits of actual ownership of the underlying Shares. CDIs are traded in a manner similar to shares of Australian companies listed on ASX. CDIs will be held in uncertificated form and settled/transferred through CHESS. No share certificates will be issued to CDI holders. Existing Shareholders cannot trade their Shares on ASX without first converting their Shares into CDIs, which is subject to South African law as described in Section 11.1.

The Shares underlying the CDIs will be registered in the name of CDN and will be held on behalf of and for the benefit of the CDI holder. CDN will receive no fees for acting as the depositary for the CDIs. CDIs will be CHESS-approved from the date of Official Quotation in accordance with the ASX Listing Rules and the ASX Settlement Operating Rules. The Shares underlying the CDIs will rank equally with the Shares that the Company has previously issued.

By completing an Application Form, an Applicant will apply for Shares to be issued to CDN, which will in turn issue CDIs to the Applicant. Investors should note that there are certain differences between Shares in Renergen and ordinary shares which are typically issued by Australian incorporated public companies. A summary of the key rights attaching to CDIs and Shares is set out in this Section 13.2 and Section 13.3.

What registers will be maintained recordings your interests?

The Company will operate a certificated principal register of Shares in South Africa, and in Australia an uncertificated issuer sponsored sub-register of CDIs and an uncertificated CHESS sub-register of CDIs.

The Company's uncertificated issuer sponsored sub-register of CDIs and uncertificated CHESS sub-register of CDIs will be maintained by the Registry. The register of Shares is the register of the legal title, and will reflect legal ownership by CDN of the Shares underlying the CDIs with the Shares held by CDN. The two uncertificated sub-registers of CDIs combined will make up the register of beneficial title of the Shares underlying the CDIs.

How is local and international trading of CDIs effected?

CDI holders who wish to trade their CDIs will be transferring the beneficial interest in the Shares rather than the legal title. The transfer will be settled electronically by delivery of the relevant CDI holdings through CHESS. In other respects, trading in CDIs is essentially the same as trading in other CHESS approved securities, such as shares in an Australian company.

What will Applicants receive on acceptance of their Applications?

Successful Applicants will receive a holding statement which sets out the number of CDIs held by the CDI holder and the reference number of the holding. These holding statements will be provided to a holder when a holding is first established and where there is a change in the holdings of CDIs.

How do CDI holders convert from a CDI holding to a direct holding of Shares?

If holders of CDIs wish to convert their holdings to Shares, they can do so by contacting the Registry.

What are the voting rights of a CDI holder?

If holders of CDIs wish to attend and vote at the Company's general meetings, they will be able to do so. Under the ASX Listing Rules and the ASX Settlement Operating Rules, any holder of CDIs issued under this Prospectus must be allowed to attend any meeting of the holders of Shares unless relevant South African laws at the time of the meeting prevents CDI holders from attending those meetings.

In order to vote at such meetings, CDI holders have the following options:

- (a) instructing CDN, as the legal owner, to vote the Shares underlying their CDIs in a particular manner. A voting instruction form will be sent to CDI holders with the notice of meeting or proxy statement for the meeting and this must be completed and returned to the Company's Registry prior to the meeting; or
- (b) informing the Company that they wish to nominate themselves or another person to be appointed as CDN's proxy with respect to their Shares underlying the CDIs for the purposes of attending and voting at the general meeting; or
- (c) converting their CDIs into a holding of Shares and voting these at the meeting (however, if thereafter the former CDI holder wishes to sell their investment on ASX it would be necessary to convert the Shares back to CDIs). In order to vote in person, the conversion must be completed prior to the record date for the meeting. See above for further information regarding the conversion process.

As holders of CDIs will not appear on the Company's share register as the legal holders of the Shares, they will not be entitled to vote at Shareholder meetings unless one of the above steps is undertaken. As each CDI represents one Share, a CDI Holder will be entitled to one vote for every CDI they hold.

CDI voting instruction forms and details of these alternatives will be included in each notice of meeting sent to CDI holders by the Company. Since CDN is the legal holder of the applicable Shares and the holders of CDIs are not themselves the legal holder of their applicable Shares, the holders of CDIs do not have any directly enforceable rights under the Company's Memorandum of Incorporation.

What dividend and other distribution entitlements do CDI holders have?

Despite legal title to the Shares being vested in CDN, the ASX Settlement Operating Rules provide that CDI holders are to receive all direct economic benefits and other entitlements in relation to the underlying Shares. These include dividends and other entitlements which attach to the underlying Shares. These rights exist only under the ASX Settlement Operating Rules (which have the force of law by virtue of the Corporations Act), rather than under the South African Companies Act.

Whilst the Company does not anticipate declaring any dividends in the foreseeable future, should it do so in the longer term, any dividends will be denominated in Rand. As such, an investor whose principal currency is not Rand will be exposed to foreign currency exchange rate risk.

What corporate action entitlement (such as rights issues and bonus issues) do CDI holders have?

CDI holders receive all direct economic benefits and other entitlements in relation to the underlying Shares. These include the entitlement to participate in rights issues, bonus issues and capital reductions. These rights exist only under the ASX Settlement Operating Rules, rather than under the South African Companies Act.

What rights do CDI holders have in the event of a takeover?

If a takeover bid or similar transaction is made in relation to the Shares of which CDN is the registered holder, under the ASX Settlement Operating Rules CDN must not accept the offer made under the takeover bid except to the extent that acceptance is authorised by the relevant CDI holder. CDN must ensure that the offeror processes the takeover acceptance of a CDI holder if such CDI holder instructs CDN to do so.

These rights exist only under the ASX Settlement Operating Rules, rather than under the South African Companies Act.

What notices and announcements will CDI holders receive?

CDI holders will receive all notices and company announcements (such as annual reports) that Shareholders are entitled to receive from the Company. These rights exist only under the ASX Settlement Operating Rules, rather than under the South African Companies Act.

What rights do CDI holders have on liquidation or winding up?

In the event of the Company's liquidation, dissolution or winding up, a CDI holder will be entitled to the same economic benefit on their CDIs as holders of Shares. These rights exist only under the ASX Settlement Operating Rules, rather than under the South African Companies Act.

Will CDI holders incur any additional ASX or ASX Settlement fees or charges as a result of holding CDIs rather than Shares?

CDI holder will not incur any additional ASX or ASX Settlement fees or charges as a result of holding CDIs rather than Shares.

Where can further information be obtained?

For further information in relation to CDIs and the matters referred to above, please refer to the ASX website and the documents entitled:

- (a) "Understanding CHES Depositary Interests" at:
http://www.asx.com.au/documents/settlement/CHES_Depositary_Interests.pdf
- (b) ASX Guidance Note 5 at:
http://www.asx.com.au/documents/rules/gn05_ches_depositary_interests.pdf

13.4. Rights attaching to Shares in the Company

The following is a broad summary of the more significant rights and liabilities attaching to the Shares. This summary is not exhaustive and does not constitute a definitive statement of the rights and liabilities of Shareholders. These rights and liabilities can involve complex questions of law arising from the interaction of the Memorandum of Incorporation with statutes, ASX Listing Rules, JSE Listings Requirements and common law requirements in both Australia and South Africa.

Full details of the rights attaching to Shares are set out in the Company's Memorandum of Incorporation, a full copy of which is available from the Company on request free of charge.

(a) Ordinary Shares

The rights attaching to the Shares are set out in the Company's Memorandum of Incorporation and, in certain circumstances, are regulated by the Companies Act, the JSE Listings Requirements and general law.

(b) Meetings and Notices

Each Shareholder will be entitled to receive notice of, and to attend and vote at, general meetings of the Company and to receive notices, accounts and other documents required to be furnished to Shareholders under the Memorandum of Incorporation, the Companies Act and the JSE Listings Requirements.

(c) General meetings

Shareholders are entitled to be present in person, or by proxy, attorney or representative to attend and vote at general meetings of the Company.

Shareholders may requisition meetings in accordance with the Companies Act and the Memorandum of Incorporation.

(d) Voting rights

Subject to any special rights or restrictions for the time being attached to any class or classes of Shares (at present there are none), at general meetings of Shareholders or classes of Shareholders:

- (i) each Shareholder entitled to vote may vote in person or by proxy, attorney or representative;
- (ii) on a show of hands, every person present who is a Shareholder or a proxy, attorney or representative of a Shareholder has one vote; and
- (iii) on a poll, every person present who is a Shareholder or a proxy, attorney or representative of a Shareholder shall, in respect of each Share held by him, or in respect of which he is appointed a proxy, attorney or representative, have one vote for each Share held.

(e) Dividend rights

The Directors alone may declare a dividend to be paid to Shareholders. The dividend is payable at a time determined in the Directors' discretion. No dividend may be declared or paid except as allowed by the Companies Act. No interest is payable in respect of unpaid dividends. The Directors may set aside the Company's profit any amount that they consider appropriate. This amount may be used in any way that profits can be used, and can be invested or used in the Company's business in the interim.

(f) Winding-up

If the Company is wound up, whether voluntarily or by court order, the assets remaining after payment of the liabilities of the Company and the costs of winding-up shall be distributed amongst the Shareholders in proportion to the number of Shares respectively held by them, subject to the rights of any Shareholders to whom Shares have been issued on special conditions and subject to the Company's right to apply set-off against the liability, if any, of any Shareholders for unpaid capital.

(g) Shareholder liability

As the Shares underlying the CDIs to be issued under the Offer are fully paid, they are not subject to any calls for money by the Directors and will therefore not become liable for forfeiture.

(h) Transfer of Shares

Generally, Shares in the Company are freely transferable, subject to formal requirements, the registration of the transfer not resulting in a contravention of or failure to observe the provisions of a law of South Africa and the transfer not being in breach of the relevant provisions of the Memorandum of Incorporation.

(i) Alteration of Memorandum of Incorporation

The Memorandum of Incorporation can only be amended by a special resolution passed by at least three quarters of Shareholders present and voting at the general meeting. In addition, at least 15 days' written notice specifying the intention to propose the resolution as a special resolution must be given to Shareholders.

13.4. Takeover Regulation

Chapters 6, 6A, 6B and 6C of the Corporations Act dealing with the acquisition of shares (including acquisitions and takeovers) does not apply to the Company, given it is incorporated in South Africa. Instead, the Company is subject to the application of the Companies Act, including Chapter 5 of that Act, which deal with fundamental transactions, takeovers and offers and the Takeover Regulations under that Act, as further detailed below.

13.5. Comparison of Laws Governing the Company with those for Australian Listed Companies

The Company is incorporated under the laws of South Africa and its corporate affairs are governed (amongst other things) by the Memorandum of Incorporation and the Companies Act. The following table sets out the principal differences between laws and regulations concerning shares in a company incorporated in South Africa as opposed to Australia. Unless otherwise stated, the Corporations Act provisions referred to below do not apply to the Company as a foreign company.

This summary is provided as a general guide only, and is not a comprehensive summary or analysis of all of the consequences resulting from acquiring, holding or disposing of shares or interests in such companies. The laws, rules, regulations and procedures described are subject to change from time to time, and investors should seek their own independent advice in relation to such differences. Please also refer to the risk factors set out in Sections 1.4 and 7.

	Australian Law	South African Law
Transactions that require Shareholder approval	Under the Corporations Act, the principal transactions or actions requiring Shareholder approval include: • adopting or altering the constitution of the company; • appointing or removing a director or auditor; • certain transactions with related parties of the company; • putting the company into liquidation; and • changes to the rights attached to shares. Shareholder approval is also required for certain transactions affecting share capital (e.g. share buybacks and share capital reductions). Under the ASX Listing Rules, Shareholder approval is required for matters including: • increases in the total amount of directors' fees; • directors' termination benefits; • certain transactions with related parties; • certain issues of shares; and • if a company proposes to make a significant change to the nature or scale of its activities or proposes to dispose of its main undertaking.	Under the Companies Act, the principal transactions or actions requiring Shareholder approval include: • adopting or amending a company's memorandum of incorporation (MOI) which includes alterations to shares and varying the preferences and rights associated with any class of shares; • issue of shares to directors or related persons, financial assistance to directors and directors compensation; • issue of shares the voting rights attaching to which equal or exceed 30%; • re-acquisition of shares; • winding up of a company; • fundamental transactions, (which include a disposal of the whole or a greater part of a company's assets or undertaking, an amalgamation or merger and a scheme of arrangement); • election or removal of directors; and • appointment of auditors. Under the JSE Listing Requirements, Shareholder approval is required for matters including: • issues of securities for cash; • repurchases of securities; • a category 1 disposal/acquisition (where the relevant percentage ratio is 30% or more); • transactions with related parties; • alterations to shares; • variations of preferences and rights attaching to any class of shares; and • adopting a share incentive scheme.

	Australian Law	South African Law
Shareholders' right to request or requisition a general meeting	The Corporations Act requires the directors to call a general meeting on the request of members with at least 5% of the votes that may be cast at the general meeting or at least 100 Shareholders who are entitled to vote at a general meeting. Shareholders with at least 5% of the votes that may be cast at the general meeting may also call and arrange to hold a general meeting at their own expense.	The Companies Act provides for the board of directors, or any other person specified in the company's MOI, to call a Shareholders meeting. The board must call a Shareholder's meeting if one or more written demands for such meeting are delivered to the company: - describing the purpose of the proposed meeting; and - demands for substantially the same purpose are made and signed by the holders of at least 10% of the voting rights entitled to be exercised in relation to the matter to be proposed at the meeting.
Shareholders' right to appoint proxies to attend and vote at meetings on their behalf	A member of a company who is entitled to attend and cast a vote at a meeting of the company's members may appoint a person as the member's proxy to attend and vote for the member at the meeting.	A Shareholder of a company may appoint any individual (who need not be a Shareholder of the company) as a proxy to participate, speak and vote at a Shareholders meeting on behalf of the Shareholder
Changes in the rights attaching to shares	The Corporations Act allows a company to set out in its constitution the procedure for varying or cancelling rights attached to shares in a class of shares. If a company does not have a constitution, or has a constitution that does not set out a procedure, such rights may only be varied or cancelled by: - a special resolution passed at a meeting for a company with a share capital of the class of members holding shares in the class; or - a written consent of members with at least 75% of the votes in the class.	Under the JSE Listings Requirements, an issuer's MOI must provide that any amendment to the MOI – which includes varying the preferences and rights associated with any class of shares, must be approved by a special resolution of the Shareholders (which requires a 75% majority to be passed). If the amendment relates to a variation of the preferences and rights of a class of shares already in issue, it may not be implemented without also being approved by a special resolution of the holders of the shares of that class at a separate meeting.
Shareholder protections against oppressive conduct	Under Australian law, a Shareholder of an Australian company may apply to the court under the Corporations Act to bring an action in cases of conduct which is either contrary to the interests of Shareholders as a whole, or oppressive to, unfairly prejudicial to, or unfairly discriminatory against, any Shareholders in their capacity as a Shareholder, or themselves in a capacity other than as a Shareholder.	In terms of the Companies Act, a Shareholder may obtain relief from the court in the event of oppressive or prejudicial conduct (or abuse of separate juristic personality of the company). An application to court may be made where such conduct is a result of an oppressive or unfairly prejudicial act or omission of the company, the business of the company is being conducted in an oppressive or unfairly prejudicial manner, or the powers of a director are being exercised in an oppressive or unfairly prejudicial manner. The Companies Act provides for various orders to be made by the court.

	Australian Law	South African Law
Shareholders' rights to bring or intervene in legal proceedings on behalf of the company	The court must grant the application if it is satisfied that: • it is probable that the company will not itself bring the proceedings, or properly take responsibility for them, or for the steps in them; • the applicant is acting in good faith; • it is in the best interests of the company that the applicant be granted leave; • if the applicant is applying for leave to bring proceedings, there is a serious question to be tried; and • either at least 14 days before making the application, the applicant gave written notice to the company of the intention to apply for leave and of the reasons for applying, or the court considers it appropriate to grant leave. The Corporations Act provides that proceedings brought or intervened in with leave must not be discontinued, compromised or settled without the leave of the court.	A Shareholder of a company (and certain other persons) may serve a demand upon the company to commence or institute legal proceedings or take related steps, to protect the legal interests of the company. The company must thereafter apply to have such demand set aside, investigate same or initiate proceedings. The person making the demand may thereafter apply to court for leave to bring or continue proceedings in the name of the company. The court may grant leave if the company: • has failed to take any particular step; • appointed an investigator who was not impartial; • accepted an inadequate, irrational or unreasonable report; • acted in a manner inconsistent to a reasonable, impartially prepared report; or • has served a notice refusing to comply with the demand; and the court is satisfied that: • the applicant is acting in good faith; • the proposed or continuing proceedings involve the trial of a serious question of material consequence to the company; and • it is in the best interests of the company that the applicant be granted leave.

	Australian Law	South African Law
Limitations on directors' liability	Under the Australian Corporations Act a company or a related body corporate must not exempt a person (whether directly or via an interposed entity) from a liability to the company incurred as an officer of the company. A company or a related body corporate cannot indemnify a director from any of the following liabilities incurred as an officer of the company: - a liability owed to the company; - a liability for a pecuniary penalty or a compensation order incurred under the Corporations Act; or - a liability that is owed to someone other than the company or a related body corporate and did not arise out of conduct in good faith. This prohibition does not apply to legal costs (but the Corporations Act also restricts a company from indemnifying directors against certain types of legal costs).	The Companies Act requires that a company's MOI may not relieve a director from: - duties relating to a director's personal financial interest; - duties relating to the standards of conduct expected of a director; - certain liabilities of directors (which are 'codified' in a section of that Act); and - any legal consequences arising from wilful misconduct or wilful breach of trust by a director. However, it provides that a company may indemnify a director in respect of any liability arising, except: - when acting beyond his/her authority; - his/her having acquiesced in the carrying on of the business despite knowledge of reckless trading; - his/her being a party to an act or omission by the company relating to fraudulent conduct; or - any fine that may be imposed as a consequence of his/her being convicted of an offence (unless the conviction was based on strict liability).
Two "strikes" rule in relation to remuneration reports	The Corporations Act requires that a company's annual report must include a report by the directors on the company's remuneration framework (called a remuneration report). A resolution must be put to Shareholders at each annual general meeting of the company's Shareholders (AGM) seeking approval for the remuneration report. The approval is advisory only, however, if more than 25% of Shareholders vote against the remuneration report at two consecutive AGMs (known as 'two strikes') an ordinary (50%) resolution must be put to Shareholders at the second AGM proposing that a further meeting be held within 90 days at which all of the directors who approved the second remuneration report must resign and stand for re-election.	Under the JSE Listings Requirements, the remuneration policy and implementation report must be tabled every year for separate non-binding advisory votes by Shareholders at the issuer's annual general meeting. The remuneration policy must record the measures that the board of directors commits to take in the event that the remuneration policy or implementation report, or both, are voted against by 25% or more of the votes exercised. In this event, the issuer must in its voting results announcement provide for the following: - an invitation to dissenting Shareholders to engage with the issuer; and - the manner and timing of such engagement.

	Australian Law	South African Law
Share capital and issue of Shares	The constitution of a typical Australian public company authorises the Board to issue shares, options and other securities with preferred, deferred or other special rights or such restrictions, whether with regards to dividends, voting, return of capital and other matters as the directors may decide. The constitution typically does not impose any maximum limit on the number of shares. Under Australian law a company, as part of its legal personality, has the power to issue and cancel shares in the company. In addition to this power a company may also issue bonus shares, preference shares and partly paid shares. The company has the power to determine the terms of and rights and restrictions attaching to the shares it issues.	The Companies Act requires that a company's MOI must set out the classes of shares and the number of shares of each class that a company is authorised to issue. It must further set out distinguishing designations for different classes and the preferences, rights, limitations and terms associated with each class. A class of shares must have the same rights, preferences, limitations and terms as all other shares within that class. It further provides that the board of directors may resolve to issue shares from those shares which have previously been authorised. An issue of shares to a director or related person or where the voting rights attaching to such shares equal or exceed 30%, however, requires approval by a special resolution of the Shareholders.
Disclosure of substantial holdings	Under the Corporations Act, a Shareholder who begins or ceases to have a substantial holding in a listed company or has a substantial holding in a listed company and there is a movement by at least 1% in their holding, must give a notice to the company and ASX. A person has a substantial holding if that person and that person's associates have a relevant interest in 5% or more of the voting shares in the company. The Company is not subject to the provisions of the Corporations Act relating to the disclosure of substantial holdings. However, the Company will be required to release to ASX any notices of certain share transactions which it is obliged to release on the Stock Exchange News Service of the JSE (SENS)	Under the Companies Act, a person who acquires a beneficial interest in securities, such that they hold 5% or any further multiple of 5% of that particular class of securities, is required to notify the company. Similarly, a person must notify the company within three business days if a disposal of securities if they dispose of a beneficial interest in securities which results in them dropping below a threshold which is a multiple of 5%. The company must then notify the Takeover Regulation Panel of such disclosures, unless less than 1% of the class was disposed of. Under the JSE Listings Requirements, an issuer must publish the information received in any such notification within 48 hours on SENS. Also, an issuer must disclose shareholdings of 5% or more in its annual financial statements.

	Australian Law	South African Law
How takeovers are regulated?	The Corporations Act prohibits a person from acquiring a relevant interest in issued voting shares in a listed company if any person's voting power in the company will increase from 20% or below to more than 20%, or from a starting point that is above 20% and below 90%. Exceptions to the prohibition apply (e.g. acquisitions with Shareholder approval, 3% creep over six months and rights issues that satisfy prescribed conditions). Substantial holder notice requirements apply (as discussed above under the heading "Disclosure of substantial holdings"). Compulsory acquisitions are permitted by persons who hold 90% or more of the securities or voting rights in a company. The Australian takeovers regime will not apply to Renergen as a foreign company.	The Takeover Regulations promulgated under the Companies Act apply to affected transactions and offers involving regulated companies (which includes public companies) or their securities. An "affected transaction" is defined in the Companies Act to include: • a fundamental transaction involving a regulated company; • the acquisition of 5%, 10% or any further multiple of 5% of the securities of a regulated company; • the acquisition of, or announced intention to acquire, a beneficial interest in the remaining voting securities of a regulated company; • a mandatory offer; and • a compulsory acquisition. An "offer" is defined in the Companies Act as a proposal of any sort which, if accepted, would result in an affected transaction. If a person or two or more inter-related persons or two or more persons acting in concert acquire at least 35% of the voting securities of a regulated company, they must offer to acquire the remaining voting securities of that company (in accordance with the Companies Act and Takeover Regulations). If an offer has been accepted by the holders of at least 90% of a class of securities, the offeror may notify the remaining holders of that class that it wishes to – and is then entitled and obliged to – acquire all the remaining securities of that class (on the same terms as those of the original offer).

	Australian Law	South African Law
Winding up	Under the Corporations Act, voluntary winding up requires the company to pass a special resolution that it be wound up voluntarily. Subject to the provisions of the Corporations Act regarding preferential payments, upon winding up the property of the company must be applied in satisfaction of its liabilities equally and, unless the company's constitution otherwise provides, be distributed among the members according to their rights and interests in the company. For winding-up in insolvency or by the court, a distribution of the surplus assets can only be made by order of the court.	Winding up of a solvent company is governed by the Companies Act, whilst winding up of an insolvent company is governed by the Companies Act 1973. Solvent companies May be wound up voluntarily by the company or its creditors, or by court order. Voluntary winding up requires a special resolution. Winding up by the court requires an application to court by the company, its directors or Shareholders, the business rescue practitioner, its creditors or the Companies Commission or the Takeover Regulation Panel. Insolvent companies May also be wound up by the court or voluntarily. An insolvent company may be wound up by the court by way of an application by the company, its creditors, members, judicial manager or the Master of the High Court. The voluntary winding up of an insolvent company arises out of a creditors' or member's voluntary winding up, if the company has by special resolution resolved to do so.

	Australian Law	South African Law
Accounting and Auditors	Under the Corporations Act a company must report to members for a financial year by providing financial reports for the year, directors' reports for the year and an auditor's report on the financial report or a concise report as specified under the Corporations Act. The directors of a public company must appoint an auditor within one month after the day on which the company is registered; however this appointment is subject to confirmation at the next annual general meeting. A public company must appoint an auditor of the company to fill any vacancy in the office of auditor at each subsequent annual general meeting.	Under the Companies Act, a company must keep accurate and complete accounting records. Annual financial statements (AFS) are to be prepared within six months after the end of the company's financial year, and must be audited in the case of a public company. The AFS must include an auditor's report, directors' report and be approved by the board and presented at the first Shareholders meeting after approval. The AFS's must also include particulars highlighting the remuneration and benefits received by each director, pensions and compensation paid to current or past directors, the number and class of shares issued to a director and details of their service contracts. Under the JSE Listings Requirements an issuer's AFS must be prepared in accordance with IFRS, and certain Financial Reporting Guides and Financial Pronouncements and certain minimum content of the AFS must contain. These also provide for the publication of interim and quarterly reports and, if applicable, provisional reports. All public companies must appoint a registered auditor upon incorporation and thereafter each year at its annual general meeting. An auditor may not serve for more than five consecutive financial years. Auditors of listed companies must be accredited by the JSE.

13.6. Terms and Conditions of Lead Manager Options

(a) Entitlement

Under the Options Offer, the Lead Manager will be issued American Options on the terms set out in this Section 13.6. Each Option entitles the holder to subscribe for one CDI upon exercise of the Option.

(b) Exercise Price and Expiry Date

The Options have an exercise price of \$0.96 per Option (Lead Manager Exercise Price) and an expiry date of 5:00pm (Sydney time) four years from the date that the Company is listed on ASX (Lead Manager Expiry Date).

An Option not exercised before the Lead Manager Expiry Date will automatically lapse on the Lead Manager Expiry Date.

(c) Exercise Period

The Options will vest immediately.

(d) Quotation of the Options

The Options will be unquoted.

(e) Notice of Exercise

The Options may be exercised by giving the Company a Notice of Exercise and payment of the Lead Manager Exercise Price for each Option being exercised in Australian currency by electronic funds transfer or other means of payment acceptable to the Company.

Any Notice of Exercise of an Option received by the Company will be deemed to be a notice of the exercise of that Option as at the date of receipt.

(f) Lodgement Instructions

Cheques shall be in Australian currency made payable to the Company and crossed "Not Negotiable". The Application for CDIs on exercise of the Options with the appropriate remittance should be lodged at the Registry.

(g) CDIs Issued on Exercise

CDIs issued on exercise of the Options rank equally with the then CDIs of the Company.

(h) Timing of Issue of CDIs and Quotation

Within 15 Business Days of a Notice of Exercise being given in accordance with these terms and conditions and payment of the Lead Manager Exercise Price for each Option being exercised, the Company will:

(i) issue the CDIs pursuant to the exercise of the Options; and

(ii) apply for Official Quotation on ASX of CDIs issued pursuant to the exercise of the Options.

(j) Participation in New Issues

There are no participation rights or entitlements inherent in the Options and holders will not be entitled to participate in new issues of capital offered to Shareholders during the currency of the Options. However, the Company will ensure that for the purposes of determining entitlements to any such issue, the record date will be at least 4 Business Days after the issue is announced. This will give the holders of Options the opportunity to exercise their Options prior to the date for determining entitlements to participate in any such issue.

(k) Adjustment for Bonus Issues of Shares

If the Company makes a bonus issue of Shares or other securities to Existing Shareholders (other than an issue in lieu or in satisfaction of dividends or by way of dividend reinvestment):

(i) the number of CDIs which must be issued on the exercise of an Option will be increased by the number of CDIs which the Option holder would have received if the Option holder had exercised the Option before the record date for the bonus issue; and

(ii) no change will be made to the Lead Manager Exercise Price.

(l) Adjustment for Entitlement Issue

If the Company makes an issue of Shares pro rata to Existing Shareholders (other than as a bonus issue, to which the above will apply) there will be no adjustment of the Lead Manager Exercise Price of an Option or the number of CDIs over which the Options are exercisable.

(m) Adjustment for Reorganisation

If there is any reorganisation of the issued share capital of the Company, the rights of the Option holders will be varied in accordance with the ASX Listing Rules.

13.6. Terms and Conditions of the Corporate Adviser Options**(a) Entitlement**

Under the Options Offer, the Corporate Adviser will be issued American Options on the terms set out in this Section 13.7. Each Option entitles the holder to subscribe for one CDI upon exercise of the Option.

(b) Exercise Price and Expiry Date

The Options have an exercise price of \$0.80 per Option and an expiry date of 5:00pm (Sydney time) four years from the date of issue.

An Option not exercised before the expiry date will automatically lapse.

(c) Exercise Period

The Options will vest immediately on issue.

(d) Other terms

The Options to be issued to the Corporate Adviser are otherwise on the same terms as those for the Lead Manager, as set out in Sections 13.6(d) to (m).

13.8. Convertible Notes

The Company has issued \$500,000 of convertible notes at a price of \$1,000 per note.

The maturity date for repayment of the notes is 36 months after the date of the payment of the face value of the notes (Maturity Date). The notes attract interest at a fixed rate of 15% of the notes' face value per annum. The Company will pay 5% of the interest accruing to the notes per annum and will capitalise 10% per annum until the date of conversion or the Maturity Date. No further interest or charges will be payable from this time.

A note holder may elect to convert some or all of their notes at any time into underlying Securities at a price equal to the face value of the notes plus capitalised interest calculated at a rate the lesser of:

- ZAR 7.84; or
- the ZAR price per underlying Security in respect of any capital raising by the Company following the date which is 2 weeks after the Company issues a drawdown notice.

The Company and Tetra4 have pledged not to incur any finance debt that was not contemplated as a permitted finance debt under the legal agreements with note holders. At any time prior to the conversion of the notes, a noteholder may notify the Company in writing that it requires the Company to grant security over all of its assets and undertakings. If the Company receives such notice, the Company can within a period of 5 business days elect to redeem the notes by written notice to the noteholder (Redemption Notice), failing the receipt of which the Company must grant security to the noteholder. If a noteholder receives a Redemption Notice, it may elect within 5 business days to convert the notes into Securities by giving the Company written notice of its decision to convert. If the noteholder does not elect to convert its notes, the Company must either redeem the notes or grant the security.

Until its notes are converted, a noteholder does not have voting, dividend or other rights customary to shareholders.

13.9. Related Party Transactions

Except as set out elsewhere in this Prospectus, the Directors are not aware of any material transactions between the Company or Tetra4 and their respective Directors or proposed Director or other Related Parties.

The Company's Audit and Risk Committee is responsible for reviewing and approving all transactions in which the Company is a participant and in which any parties related to the Company, including its executive officers, Directors, beneficial owners of more than 5% of the Company's Shares, immediate family members of the foregoing persons and any other persons whom the Board determines may be considered Related Parties of the Company, has or will have a direct or indirect material interest.

The Audit and Risk Committee or its Chairman, as the case may be, will only approve those Related Party transactions that are determined to be in, or are not inconsistent with, the best interests of the Company and its Shareholders, after taking into account all available facts and circumstances as the audit committee or the Chairman determines in good faith to be necessary. Transactions with Related Parties will also be subject to Shareholder approval to the extent required by the JSE Listings Requirements and ASX Listing Rules.

13.10. Interests of Promoters, Experts and Advisors

Other than as set out below or as is disclosed elsewhere in this Prospectus, no promoter or person named in this Prospectus as having performed a function in a professional, advisory or other capacity in connection with the preparation or distribution of this Prospectus (or entity in which they are a partner or director) do not hold, have, and have not had in the two years before Prospectus Date, any interest in:

- (i) the formation or promotion of the Company; or
- (ii) property acquired or proposed to be acquired by the Company in connection with its formation or promotion or in connection with the Offer under this Prospectus; or
- (iii) the Offer under this Prospectus,

and no amounts have been paid or agreed to be paid and no value or other benefit has been given or agreed to be paid to a promoter or any person named in this Prospectus as having performed a function in a professional, advisory or other capacity in connection with the preparation or distribution of this Prospectus (or entity in which they are a partner or director), provided in connection with the formation or promotion of the Company or the Offer, except as disclosed in this Prospectus. The fees payable to services providers are set out in Section 13.11.

13.11. Costs of the Offer

The expenses of the Offer will be paid out of the funds raised under the Offer or cash otherwise available to the Company.

The total estimated cash costs to the Company in connection with the Offer (exclusive of GST), including Lead Manager and brokerage, legal, accounting, tax, listing and administration fees, as well as printing, advertising and other expenses, are currently estimated to be approximately \$1.389 million at the Minimum Subscription of \$5 million. If oversubscriptions of \$5 million are accepted, an additional \$0.3 million in cash costs will be incurred. As at the Prospectus date, \$0.6 million has been paid.

A summary of the cash costs is set out in the following table:

Service Provider	Description	Minimum	With \$5
		Subscription \$000's	million in over subscriptions \$000's
ASX	ASX fees	145	149
Perpetuity Capital Pty Ltd	Corporate adviser	396	396
The Eights Group Pty Ltd	Lead Manager	300	600
Grant Thornton Corporate Finance Pty Ltd	Independent Limited Assurance Report	110	110
MHA Petroleum Consultants LLC; Lungiswa Energy Pty Ltd; Edison Investment Research Limited	Expert Reports	125	125
Norton Rose Fulbright Australia; Norton Rose Fulbright SA	Legal fees	252	252
BDO (SA) Incorporated	Tax due diligence	9	9
SenateSHJ Citadel Magnus	Communications and public relations	50	50
	Printing, mailing, marketing and other administration expenses	22	22
	Total	1,389	1,693

In addition to the cash fees summarised above, the Company will grant Options as explained in Sections 13.6 and 13.7.

13.12. Taxation Implications

Australian taxation implications

Set out below is a summary of the potential Australian tax implications for investors who acquire CDIs under the Offer.

This advice is a general guide to the Australian tax implications only based on the law in force in Australia as at the Prospectus Date. These laws and practices are subject to change periodically as is their interpretation by the courts. Shareholders should obtain their own independent professional advice on the tax implications of acquiring and disposing of CDIs based on their own specific circumstances.

This summary generally outlines the Australian taxation position of the following types of CDI holders of the Company who hold their CDIs on capital account and are Australian residents.

Australian resident individuals

Disposal/transfer of CDIs

The transfer/disposal of CDIs by a CDI holder will be a capital gains tax event in respect of the CDIs.

A capital gain will arise where the capital proceeds (generally, the market value of the consideration) received pursuant to the transfer of CDIs exceeds the cost base of the CDIs in the Company. The cost base of the CDIs in an arm's length transaction is generally the value of the consideration paid to acquire the CDIs (plus transaction costs).

In preparing their Australian income tax return, CDI holders will need to total their individual capital gains and capital losses in a year of income to ascertain whether they have a net capital gain or loss for the year of income.

Any net capital gain is included in their assessable income and is subject to income tax at their personal marginal tax rate. In this case, CDI holders may be eligible for the capital gains discount concession where they have held their CDIs for at least 12 months prior to disposal. If the capital gains discount concession applies, only half of any capital gain arising from the transfer of the CDIs is included in the CDI holder's assessable income.

A net capital loss may be carried forward to offset against capital gains derived in future income years. However, a capital loss may not be offset against other income for income tax purposes.

Receipt of future dividends

The Company has not paid dividends in respect of its CDIs and does not intend to do so in the foreseeable future.

If any dividend is paid in the future, the Company may be required to withhold and remit a percentage of the gross dividend to the SA taxation authorities (referred to as dividend withholding tax). Generally, the South Africa/Australia tax treaty should reduce the dividend withholding tax rate to 15% of the gross amount of the dividends where the CDI holder holds less than 10% of the voting interests of the Company. This rate may be further reduced if other requirements of the treaty are met.

CDI holders will receive the dividend net of the dividend withholding tax (if applicable). However, CDI holders will need to include the gross amount of the dividend in their Australian assessable income (that is, the dividend plus any dividend withholding tax that has been deducted) as foreign sourced dividend income. The Australian tax payable on the dividend can generally be reduced by the amount of the dividend withholding tax deducted and remitted in South Africa. This is referred to as the 'foreign income tax offset' which is, subject to a foreign income tax offset limit, calculated as the greater of:

- \$1,000; or
- the Australian tax that would be payable on the Australian CDI holder's assessable foreign income for the year (less related expenses other than interest).

To the extent that the amount of withholding tax deducted from the foreign income (for example, dividends) exceeds the foreign income tax offset that the CDI holder can claim in an income year applying the above principles, the excess is lost and cannot be carried forward.

Australian resident companies

Disposal/transfer of CDIs

The Australian tax implications of the transfer of CDIs are largely the same as for an Australian resident individual (outlined above), except that:

- a company's assessable income is subject to income tax at the company tax rate;
- if the CDI holder holds a direct voting interest of 10% or more in the Company throughout a 12 month period within the 24 months prior to the disposal of the CDIs, the capital gain or capital loss may be reduced to the extent that the Company has 'active foreign business assets'. This will depend on the mix of assets held by the Company at that time and CDI holders should seek independent professional advice in this respect;
- the capital gains discount concession is not available to a company; and
- a net capital loss may only be carried forward to offset against capital gains derived in future income years if certain loss recoupment rules are satisfied.

Receipt of future dividends

The Australian tax implications will depend on the percentage of voting interests held by the Australian company (together with its associates) in the Company after the Offer. That is, if the Australian company (together with its associates) holds:

- less than 10% of voting interests in the Company: the Australian tax implications of receiving dividends will be the same as for an Australian resident individual (outlined above), except that the company's assessable income is subject to income tax at the company tax rate.
- 10% or more of voting interests in the Company: the dividend will be exempt income and no tax will be payable. No foreign income tax offset for South African dividend withholding tax will be available.

Australian resident complying superannuation fund

The Australian tax implications are generally the same as for an Australian resident individual outlined above. However, the capital gains discount concession will be 33% (not 50%) and the loss recoupment rules will apply to carry forward tax losses.

Australian resident trust (not taxed as a company)

The tax consequences that arise where a trust holds CDIs in the Company will vary depending upon the nature of the trust, and CDI holders in these circumstances should seek their own independent professional advice.

The tax consequences that arise for an Australian resident trust in respect of gains on transfer/disposal of the CDIs and dividends received in respect of CDIs held in the Company are largely the same as described for Australian resident individuals outlined above (but additional loss recoupment rules will apply to carry forward tax losses).

Stamp duty/GST consequences

CDI holders will not be required to pay any stamp duty on the issue of CDIs received under the Offer or on the future transfer of their CDIs to prospective CDI holders.

The transfer, cancellation or issue of CDIs should not be subject to GST. However, CDI holders may incur GST on their costs associated with these events (e.g. brokerage). CDI holders that are registered for GST may be entitled to claim GST credits on these costs. CDI holders should seek independent tax advice in these circumstances.

South Africa tax implications

The following general taxation comments consider the South African income tax implications for non-South African tax residents. It does not include an analysis of tax that may be applicable in other jurisdictions. This summary does not take into account or anticipate any changes in the law or practice that may occur.

This summary is general in nature. It does not deal with all aspects of South African tax law that may be relevant to specific types of investors. The comments do not purport to provide tax advice to any particular investor and should not be relied upon as the tax position of each investor may vary depending on the specific circumstances of the investor. The Company recommends that each investor seeks their own independent income tax advice based on their particular circumstances. All current or potential investors in the Company are urged to obtain independent financial advice about the consequences of acquiring shares.

To the maximum extent permitted by law, the Company, its officers, Directors, proposed Director, and each of their respective advisers accept no liability or responsibility with respect to the taxation consequences of acquiring or disposing of shares issued under this Prospectus.

South African Non-Residents' Disposal of shares

A share is included in the definition of an asset in terms of the Income Tax Act 58 of 1962 (ITA). A capital gain arises when an asset is disposed for proceeds that exceed its base cost. The relevant legislation dealing with capital gains tax (CGT) is contained in the Eighth Schedule of the ITA.

CGT is triggered by the disposal of an asset. CGT is calculated by deducting the base cost from the proceeds. A 'disposal' is defined very widely and includes, amongst other things, the sale, donation, expropriation, cession, transfer of ownership, forfeiture or termination of an asset. The date of disposal is also the trigger date for capital gains. The 'base cost' is equivalent of the cost of acquiring an asset, plus all costs actually incurred in improving or adding to it.

The percentage of the capital gain included in gross income is 40% of the gain realized in the case of a natural person or a special trust as defined, and 80% of the capital gain realized for companies and trusts.

Securities Transfer Tax (STT) is levied at 0.25% of the shares transferred. Transferred includes the buying-back, redemption or cancellation of shares.

A gain on the sale or disposition of a share by a non-South African resident shareholder will not generally be subject to South African tax to the extent that the non-South African resident shareholder is not engaged in a South African trade or business or permanent establishment under a relevant tax treaty and such a gain is not attributable to the sale or exchange of South African immovable property.

If a non-resident directly or indirectly holds at least 20% of the equity shares in a South African company, with at least 80% of the market value of the equity shares of that company directly or indirectly being attributable to immovable property in South Africa, the proceeds on disposal of the share will be subject to CGT.

South African Non-Residents' Dividend Income

Non-residents are only taxed on their South African sourced income subject to a number of exceptions and the provisions of various double taxation treaties.

South African dividends paid to non-residents are subject to a 20% dividend withholding tax in respect of dividends paid. The above withholding taxes are subject to various exclusions and are also subject to relief in terms of double taxation treaties.

Where a foreign company, listed on a South African stock exchange, has to withhold South African dividends tax from a foreign dividend, the following rebate must be deducted from the South African dividends tax that needs to be withheld, provided that the company or regulated intermediary obtains proof of the foreign tax paid:

- the foreign tax paid on the dividend;
- limited to the 20% of dividends tax on the dividend; and
- the foreign tax must be translated to Rands at the same rate that the dividend is converted to Rands to work out the "Dividends Tax".

13.13. Continuous Disclosure Obligations

The Company, upon admission to the Official List, is a "disclosing entity" (as defined in Section 111AC of the Corporations Act) and, as such, is subject to regular reporting and disclosure obligations. Specifically, like all listed companies, the Company is required to continuously disclose any information it has to the market which a reasonable person would expect to have a material effect on the price or the value of the Company's securities.

As a company listed on JSE's AltX, Renergen already complies with the South African continuous disclosure regime, which has a similar intent to the Australian regime. To meet its JSE compliance obligations Renergen previously adopted a continuous disclosure policy and has adapted this to reflect the Australian regime.

13.14. Litigation and Claims

So far as the Directors are aware, there is no current or threatened civil litigation, arbitration proceedings or administrative appeals, or criminal or governmental prosecutions of a material nature in which the Company (or any other member of the Group) is directly or indirectly concerned which is likely to have a material adverse effect on the business or financial position of the Company or the Group.

13.15. Consents

Each of the parties referred to in this Section:

- (a) has given the following consents in accordance with the Corporations Act which have not been withdrawn as at the Prospectus Date;
- (b) makes no express or implied representation or warranty in relation to the Company, this Prospectus or the Offer;
- (c) makes no, and purports to have made no, statement in this Prospectus or on which a statement in this Prospectus is based except as set out in this Section; and
- (d) makes no representations regarding, and to the maximum extent permitted by law, expressly disclaims and takes no responsibility for any statements in, or omissions from, any part of this Prospectus other than a reference to its name and a statement included in this Prospectus with the consent of that party as specified in this Section.

None of the parties referred to in this Section authorised or caused the issue of this Prospectus or the making of the Offer.

Name of Entity	Role	Statements / Reports
Norton Rose Fulbright Australia	Legal Adviser to the Offer	None
Norton Rose Fulbright SA	Solicitor's Report	Solicitor's Report in Section 6
The Eights Group Pty Ltd	Lead Manager to the Offer	None
Perpetuity Capital Pty Ltd	Corporate Adviser	None
Grant Thornton Corporate Finance Pty Ltd	Investigating Accountant	Independent Limited Assurance Report in Section 10
BDO (SA) Incorporated	Auditor	Statements specifically attributed to it in the text of this Prospectus
Edison Investment Research Limited	Independent Expert	Independent Market Report – Global Helium Industry in Section 3
Lungiswa Energy Pty Ltd	Independent Expert	Independent Market Report – LNG Industry in South Africa in Section 4
MHA Petroleum Consultants LLC	Technical Expert	Technical Petroleum Report in Section 5
Computershare Investor Services Pty Limited	Registry	None
PSG Capital Pty Ltd	JSE Designated Advisor	None
SenateSHJ Citadel Magnus	Communications and Public Relations Advisor	None

13.16. ASX Waivers

The Company has applied for a number of the following in-principle determinations from ASX, as described below the in-principle determinations have not been formally granted as at the Prospectus Date. The Company has requested that ASX provide:

- (a) a waiver from ASX Listing Rules 1.1 condition 2 and 15.11.1 to permit the Memorandum of Incorporation not to comply with the ASX Listing Rules in respect of the issue of non-voting shares and imposition of fees for the registration of transfer of securities;
- (b) a waiver from ASX Listing Rule 6.10.3 to permit the Company to set the “specified time” for the purpose of ASX Listing Rules to determine whether a Shareholder is entitled to vote at a Shareholders meeting in accordance with the relevant South African legal requirements;
- (c) a waiver from ASX Listing Rule 15.12 to permit the Memorandum of Incorporation not to contain the provisions required by ASX Listing Rules 15.12.1 to 15.12.3 inclusive;
- (d) waivers from ASX Listing Rules 1.1 condition 6 and 2.4 to permit the Company to apply for quotation only of those CDIs issued into the Australian Market;
- (e) waivers from ASX Listing Rule 1.1 condition 9 and 9.13 to permit the Company not to apply the restrictions in clauses 1, 2, 3, 4, 7, 8, 9 of Appendix 9B of the ASX Listing Rules to its securities;
- (f) a waiver from ASX Listing Rule 2.8 to permit the Company not to apply for quotation of CDIs which are traded on AltX’s market to CDIs traded on ASX’s market, within 10 Business Days of the transfer of those CDIs to be traded on ASX’s market; and
- (g) a waiver from ASX Listing Rule 15.7 to permit the Company to provide announcements simultaneously to both ASX and AltX.

13.17. Governing Law

This Prospectus and (unless otherwise specifically stated) the contracts that arise from the acceptance of the Applications are governed by the laws applicable in Victoria, Australia and each Applicant submits to the exclusive jurisdiction of the courts of Victoria, Australia.

13.18. Director’s Consent

Each Director has authorised the issue of this Prospectus and each Director and the proposed Director has consented to its lodgement with ASIC.

14. ADDITIONAL JSE INFORMATION

14.1. Corporate Information

The Company's registered office in South Africa is:

1 Bompas Road
Dunkeld West
2196
South Africa

The Company's South African Transfer Secretaries:

Computershare Investor Services Proprietary Limited
(Registration number 2004/003647/07)
Rosebank Towers
15 Biermann Avenue
Rosebank, 2196
South Africa

Tetra4 Proprietary Limited
(Registration number 2005/012157/07)

1 Bompas Road
Dunkeld West
2196
South Africa

Postnet Suite 610
Private Bag X10030
Randburg
Gauteng
2125

Tetra4 was incorporated in South Africa on 26 April 2005.
Tetra4 became a subsidiary of Renergen on 25 November 2015.

The founders of Renergen were:

Stefano Marani and Integrated Capital Management Proprietary Limited, Unit 2, Ground Floor
3 Melrose Boulevard, Melrose Arch, Johannesburg, 2196, South Africa.

14.2. Share Capital

The authorised and issued share capital of the Company prior to the issue of this Prospectus is as follows:

Authorised share capital	Rand
500 000 000 ordinary shares of no par value	-
Issued share capital	
100 135 752 ordinary shares of no par value	909,597,688
Stated capital	909,597,688

The authorised and maximum issued share capital of the Company after Completion and the issue of Options to the Lead Manager, Corporate Adviser, Convertible Notes and Dr King as set out in paragraph 12.9 will be as follows:

Authorised share capital	Rand
500 000 000 ordinary shares of no par value	-
Issued share capital	
118,423,580 ordinary shares of no par value	1,079,983,979
Stated capital	1,079,983,979

The Company does not hold any shares in treasury.

14.3. Directors' Responsibility Statement

The Directors, whose names are given in paragraph 8.1 of this Prospectus, collectively and individually accept full responsibility for the accuracy of the information given and certify that to the best of their knowledge and belief, that there are no facts which have been omitted which would make any statement false or misleading, and that all reasonable enquiries to ascertain such facts have been made, and that this Prospectus contains all information required by law and the JSE Listings Requirements.

14.4. Issues of Securities

The table below sets out the issues of securities by Renegen during the preceding three years:

Date of Issue	Number of Shares	Share price	Public shareholder beneficiary	ZAR capital raised	Reasons for discounts	Offer made in proportion to shareholding?
Thursday, 08 December 2016	1,037,077	13.00	Multiple shareholders	13,482,001	Private Placement	Offer made within shareholder approved limit of 50% of shares in issue
Thursday, 20 April 2017	800,000	10.00	Mazi Asset Management	8,000,000	Private Placement	Offer made within shareholder approved limit of 50% of shares in issue
Thursday, 20 April 2017	200,000	10.00	Novare Investments	2,000,000	Private Placement	Offer made within shareholder approved limit of 50% of shares in issue
Tuesday, 12 September 2017	1,024,590	9.76	Mergence Investment Managers	9,999,998	Private Placement	Offer made within shareholder approved limit of 50% of shares in issue
Wednesday, 13 September 2017	512,821	9.75	Mergence Investment Managers	5,000,004	Private Placement	Offer made within shareholder approved limit of 50% of shares in issue
Tuesday, 28 November 2017	85,107	11.75	Garth Curry	1,000,007	Private Placement	Offer made within shareholder approved limit of 50% of shares in issue
Issued in 12 March 2018	600,000	9.00	Elements Investment Managers	R5,400,000	Private Placement	Offer made within shareholder approved limit of 50% of shares in issue
Issued in 12 March 2018	555,555	9.00	Mazi Asset Management	R4,999,995	Private Placement	Offer made within shareholder approved limit of 50% of shares in issue
Issued in 14 June 2018	114,417	8.74	Norma Barbara Curry	R1,000,004	Private Placement	Offer made within shareholder approved limit of 50% of shares in issue
Issued 6 July 2018	555,556	9.00	Mergence Investment Managers	R5,000,004	Private Placement	Offer made within shareholder approved limit of 50% of shares in issue
Issued 27 July 2018	152,853	8.90	Sanlam Private Wealth	R1,360,391	Private Placement	Offer made within shareholder approved limit of 50% of shares in issue
Issued 27 August 2018	455,581	8.78	Sanlam Small Cap Unit Trust	R4,000,001.18	Private Placement	Offer made within shareholder approved limit of 50% of shares in issue
Issued 03 Dec 2018 (rights issue)	16,666,667	7.50	Multiple shareholders Rights Offer	R125,000,002	Rights Offer share price approved by shareholders	Rights Offer share price approved by shareholders
Total issued shares 28 Feb 2019	100,135,752					

No major subsidiary of Renegen has issued any shares in the preceding 3 years.

There have been no repurchases, sub-divisions or consolidations of Shares undertaken by Renegen, in the last 3 years prior to the Prospectus.

The unissued shares of Renegen are placed under the control of the Directors in terms of the Companies Act, subject to the JSE Listings Requirements.

Renegen shareholders approved the Listing, the Offer (including the options to the Lead Manager, the Corporate Adviser and Dr King) in a general meeting on 19 March 2019.

14.5. Borrowing Powers

Clause 5.4 of the Company's Memorandum of Incorporation sets out the following, amendment of which will require approval by way of a special resolution:

- (a) The authority of the Board to manage and direct the business and affairs of the Company, as contemplated in section 66(1) of the Companies Act No.71 of 2008, is not limited, restricted or qualified by this Memorandum.
- (b) In terms of this Memorandum of Incorporation the Directors may, from time to time, at their discretion, raise or borrow or secure the payment of any sum or sums of money for the purposes of the Company, provided that the total amount owing by the Company in respect of monies so raised, borrowed or secured, shall not exceed the amount authorised by the Company.

The borrowing powers of the Directors of Renergen and its subsidiaries are unlimited and have not been exceeded in the preceding three years.

14.6. Material Commitments, Lease Payments and Contingent Liabilities

- (a) Save for as disclosed in paragraphs 9.7 and 12.2, Renergen and Tetra4 had no material borrowings.
- (b) Renergen and Tetra4 have no material commitments, lease payments, contingent liabilities.
- (c) The details of Renergen leases are:

	Johannesburg Office	Virginia Office
Owner	PPS Property Fund Trust	Property Basket
Property Type	Office	Office
Location	First Floor, 1 Bompas road, Dunkeld West, Johannesburg, South Africa	93 Gawie Theron Street, Virginia, Free State, South Africa
Rental	R88 752.36 per month	R6 820 per month
Unexpired term of lease	30 June 2019, renewable	Expired, renewable monthly
Area	507m2	400m2

No loans have been made to any Director or proposed Director.

14.7. Directorships

JSE requires a list of the names for each Director of all companies and partnerships of which they have been a director or partner currently and in the preceding 5 years. The name, registration number and indication of whether position is current or previous. Subsidiaries of Renergen need not be included.

Stefano Marani

Registration Number	Enterprise Name	Registration Date	Enterprise Status	Enterprise Type	Director Status
1996/003099/23	Il Cavallino Delicatessen	1996-01-24	Deregistered	Close Corporation	Inactive
1998/010323/23	Calvin D'ymant Financial Investments	1998-02-26	In Business	Close Corporation	Resigned
2011/107270/07	Windfall Energy	2011-08-26	Deregistered	Private Company	Inactive
2013/091906/07	K2013091906 (South Africa)	2013-06-04	Deregistration Process	Private Company	Resigned
2013/091914/07	K2013091914 (South Africa)	2013-06-04	Deregistration Process	Private Company	Active
2014/164829/07	Matc Investments	2014-08-22	In Business	Private Company	Active
2014/195093/07	Renergen	2014-09-30	In Business	Public Company	Active
2015/101914/06	Windfall Resources	2015-03-27	Deregistered	Public Company	Inactive
2003/012883/07	Sfida Investment Holdings	2003-06-04	Deregistered	Private Company	Inactive

Registration Number	Enterprise Name	Registration Date	Enterprise Status	Enterprise Type	Director Status
2004/025680/07	Clade Investment Management	2004-09-13	In Business	Private Company	Resigned
2005/012157/07	Tetra4	2005-04-26	In Business	Private Company	Active
2006/032681/06	Exchange Traded Fund	2006-10-19	Deregistration Process	Public Company	Resigned
2007/033199/10	Bondi Limited (Incorporated In Cayman Islands)	2007-11-19	Deregistered	External Company	Inactive
2007/034996/07	Molopo Evander Exploration And Production	2007-12-06	Deregistered	Private Company	Inactive
2007/035014/07	Molopo Virginia Exploration And Production	2007-12-06	Deregistered	Private Company	Inactive
2010/015803/10	Kg Mtc Ltd Incorporated In Mauritius	2010-07-28	Deregistration Process	External Company	Resigned

Nick Mitchell

Registration Number	Enterprise Name	Registration Date	Enterprise Status	Enterprise Type	Director Status
2011/107270/07	Windfall Energy	2011-08-26	Deregistered	Private Company	Inactive
2012/154896/07	Mico Print And Advertising	2012-08-27	Deregistration Process	Private Company	Active
2014/157242/07	Crt Investments	2014-08-13	In Business	Private Company	Active
2014/195093/06	Renergen	2014-09-30	In Business	Public Company	Active
2015/101914/06	Windfall Resources	2015-03-27	Deregistered	Public Company	Inactive
2005/012157/07	Tetra4	2005-04-26	In Business	Private Company	Active
2005/032869/07	Ntsimbi Exports	2005-09-16	Deregistered	Private Company	Inactive
2007/034996/07	Molopo Evander Exploration And Production	2007-12-06	Deregistered	Private Company	Inactive
2007/035014/07	Molopo Virginia Exploration And Production	2007-12-06	Deregistered	Private Company	Inactive

Fulu Ravele

Registration Number	Enterprise Name	Registration Date	Enterprise Status	Enterprise Type	Director Status
2006/052044/23	Murendiwa Trading	2006-04-04	Deregistered	Close Corporation	Inactive
2014/009664/07	Sibane Advisory	2014-01-17	Deregistered	Private Company	Inactive
2014/030032/21	Sibane Advisory	2014-02-11	Deregistration Process	Personal Liability Company	Active
2014/195093/06	Renergen	2014-09-30	In Business	Public Company	Active
2018/249361/07	Luhuhi Investments	2018-04-16	In Business	Private Company	Active
2005/012157/07	Tetra4	2005-04-26	In Business	Private Company	Active

Luigi Matteucci

Registration Number	Enterprise Name	Registration Date	Enterprise Status	Enterprise Type	Director Status
2004/084932/23	Amateur Handelaars In Aandele	2004-08-24	Deregistered	Close Corporation	Inactive
2013/122548/07	Jordinetix	2013-07-22	Deregistration Process	Private Company	Active
2014/195093/06	Renergen	2014-09-30	In Business	Public Company	Active
1960/001900/06	Evraz Highveld Steel And Vanadium	1960-05-19	Business Rescue	Public Company	Resigned
1987/004836/07	Sublime Technologies	1987-10-06	In Business	Private Company	Resigned
1991/003485/08	The Small Enterprise Foundation	1991-07-03	In Business	Non Profit Company	Resigned
2006/029756/07	Vanadium Resources (PTY) Ltd	2006-09-21	In Business	Private Company	Active
1999/002477/07	Columbus Stainless	1999-02-05	In Business	Private Company	Resigned
1919/006020/06	Delta EMD	1919-06-01	In Business	Private Company	Active
ABN4761830788	Tando Limited	2017-3-31	In Business	Public Company	Active

Bane Maleke

Registration Number	Enterprise Name	Registration Date	Enterprise Status	Enterprise Type	Director Status
2014/195093/06	Renergen	2014-09-30	In Business	Public Company	Active
2017/296725/07	Profectus Investments	2017-07-05	In Business	Private Company	Active

Mbali Swana

Registration Number	Enterprise Name	Registration Date	Enterprise Status	Enterprise Type	Director Status
2000/002350/07	Prop 5 International	2012-09-18	In Business	Private Company	Active
2014/130010/07	Nomenti Investment Holdings	2014-07-09	In Business	Private Company	Active
2014/195093/06	Renergen	2014-09-30	In Business	Public Company	Active
2015/393359/07	K2015393359 (South Africa)	2015-11-06	Deregistration Process	Private Company	Active
2016/193172/08	Matumaini Haven	2016-05-10	In Business	Non Profit Company	Resigned
2016/193544/07	K2016193544 (South Africa)	2016-05-10	In Business	Private Company	Active
2017/237201/07	Eon Prop5 Virtual Reality Southern Africa	2017-06-09	In Business	Private Company	Active
1978/004596/07	Raubex	1978-11-21	In Business	Private Company	Resigned
1992/001299/07	Roadmac Surfacing	1992-03-12	In Business	Private Company	Resigned

Registration Number	Enterprise Name	Registration Date	Enterprise Status	Enterprise Type	Director Status
1993/070002/07	Raubex Construction	1993-01-08	In Business	Private Company	Resigned
1996/014450/07	Swana Property Developments	1996-10-22	Deregistered	Private Company	Inactive
1997/014970/07	National Asphalt	1997-09-08	In Business	Private Company	Resigned
1999/016677/07	Milling Techniks	1999-03-08	In Business	Private Company	Resigned
2000/002350/07	Prop 5 Corporation	2000-02-09	In Business	Private Company	Active
2000/023043/07	Global Waste Management	2000-09-08	Deregistered	Private Company	Inactive
2000/028752/07	Prop 5 Consultants	2000-11-15	In Business	Private Company	Active
2000/028753/07	Prop 5 Facilities Management	2000-11-15	In Business	Private Company	Active
2000/028753/07	Prop 5 Facilities Management	2000-11-15	In Business	Private Company	Resigned
2000/028754/07	Githa Investments	2000-11-15	Deregistered	Private Company	Inactive
2005/025875/07	A M Mfolozi Group Schemes	2001-11-07	In Business	Private Company	Active
2002/016340/07	Skyward Housing	2002-07-10	In Business	Private Company	Resigned
2002/029188/07	Matlapeng Resources	2002-11-18	Deregistration Process	Private Company	Active
2003/005305/07	Rainprop (Rf)	2003-03-04	In Business	Private Company	Active
2003/010341/07	Prop 5 Waste	2003-05-08	Deregistered	Private Company	Inactive
2003/012434/07	Experience Delivery Company	2003-06-02	In Business	Private Company	Active
2003/021451/07	Nulane Investments 0005	2003-09-02	Deregistered	Private Company	Inactive
2004/007672/07	Matlapeng Strategic Investments	2004-03-19	Deregistration Process	Private Company	Active
2004/007690/07	Westside Trading 117	2004-03-19	In Business	Private Company	Resigned
2004/007858/07	Matlapeng Holdings	2004-03-23	In Business	Private Company	Active
2005/025875/07	A M Mfolozi Group Holdings	2005-07-20	In Business	Private Company	Active
2005/037658/07	A M Mfolozi Funeral Services	2005-10-19	In Business	Private Company	Active
2005/038441/07	A M Mfolozi Properties	2005-10-28	In Business	Private Company	Active
2006/023666/06	Raubex Group	2006-07-27	In Business	Public Company	Resigned
2010/020294/07	Prop 5 Holdings	2010-10-04	Deregistration Process	Private Company	Active
2011/001653/07	Melody Street Trading 55	2011-01-21	Deregistered	Private Company	Inactive
2011/001734/07	Belton Park Trading 111	2011-01-21	Deregistered	Private Company	Inactive

Brett Kimber

Registration Number	Enterprise Name	Registration Date	Enterprise Status	Enterprise Type	Director Status
2013/170713/07	Marley Pipe Systems (Sa)	2013-09-17	In Business	Private Company	Resigned
2014/195093/06	Renegen	2014-09-30	In Business	Public Company	Active
2015/227647/07	Eazi Access Group	2015-07-01	In Business	Private Company	Active
2015/237349/07	Eazi Access Rental	2015-07-08	In Business	Private Company	Active
2015/309509/07	Eazi Access Investments	2015-08-28	In Business	Private Company	Active
2015/399961/07	White Stone Gas	2015-11-09	In Business	Private Company	Active
2016/344620/07	Belgaz	2016-08-15	In Business	Private Company	Active
2019/087361/07	Kopano Industrial Solutions	2019-02-21	In Business	Private Company	Active
1927/000089/06	African Oxygen	1927-03-18	In Business	Public Company	Resigned
1980/003424/07	Eazi Sales And Service	1980-04-22	In Business	Private Company	Active
1991/003365/07	Marley Holdings	1991-06-27	In Business	Private Company	Resigned
2002/007063/07	Uplift Quality Solutions	2002-03-22	In Business	Private Company	Active
2005/043679/07	Eazi Access Rental Holdings	2005-12-09	In Business	Private Company	Active
2008/019270/08	Southern Africa Plastic Pipe Manufacturers Association	2008-08-13	In Business	Non Profit Company	Active

Francois Olivier

Registration Number	Enterprise Name	Registration Date	Enterprise Status	Enterprise Type	Director Status
2007/010095/23	Fjo Investment Management	2007-01-19	Deregistered	Close Corporation	Inactive
2012/008799/07	Cfmone	2012-01-19	Deregistration Process	Private Company	Active
2014/026526/07	Intuitu Investments	2014-02-07	In Business	Private Company	Active
2014/195093/06	Renegen	2014-09-30	In Business	Public Company	Active
2016/464163/07	1 Andrew Street	2016-10-31	In Business	Private Company	Active
2002/028537/07	Capricorn Fund Managers	2002-11-12	In Business	Private Company	Resigned
2006/014527/07	Capricorn Imalivest Fund Managers	2006-05-15	Deregistered	Private Company	Inactive
2012/117958/07	Three I Developments	2012-07-06	In Business	Private Company	Active
2007/007084/06	Ellies Holdings Limited	2007 – 05-03	In Business	Private Company	Active

14.8. Directors' Declaration

Each Director has confirmed that he or she has not been involved in, and is not subject to, any:

- bankruptcies, insolvencies or individual voluntary compromise arrangement;
- any business rescue plans and/or resolution proposed by any entity to commence business rescue proceedings, application having been made for any entity to begin business rescue proceedings, notices having been delivered in terms of section 129(7) of the Companies Act, receiverships, compulsory liquidations, creditors voluntary liquidations, administrations, company voluntary arrangements, or any compromise or arrangement with creditors generally or any class of creditors of any company where Director is or was a director with an executive function at the time of any such event or within the preceding 12 months;
- compulsory liquidations, administrations, partnership voluntary arrangements of any partnership where the individual was a partner at the time of such arrangements or within the preceding 12 months;
- receiverships of any asset/s of such person or of a partnership of which the individual is or was a partner at the time thereof or within the preceding 12 months;
- public criticism by statutory or regulatory authorities (including recognised professional bodies) or disqualified by a court from acting as a director or in the management or conduct of the affairs of any company;
- offence involving dishonesty;
- removal from an office of trust, on the grounds of misconduct and involving dishonesty; or
- order granted by court declaring the person delinquent or placing the person under probation in terms of section 162 of the Companies Act and/or section 47 of the Close Corporations Act, No. 69 of 1984, or disqualification by a court to act as a director in terms of section 69 of the Companies Act.

In addition, no Director has been an officer of a company that has entered into any form of external administration as a result of insolvency during the time that such Director was an officer or within a 12-month period after they ceased to be an officer.

14.9. Provisions of Memorandum of Incorporation

Directors' Compensation and Financial Assistance to Directors

- (a) The remuneration of the Directors shall be such sum or sums as may from time to time be determined by the Board, subject to the approval by the Company in a Shareholders' Meeting, in accordance with sections 66(8) and 66(9) of the Companies Act.
- (b) Subject to any approvals as may be required under sections 66(8) and 66(9) of the Companies Act, the Directors shall also be paid all their travelling and other expenses, properly and necessarily incurred by them in and about the business of the Company, and in attending Meetings of Directors or of Committees thereof, and, if any Director is required to perform extra services, to reside abroad or be specifically occupied about the Company's business, he may be entitled to such remuneration as is determined by a disinterested quorum of Directors, which may be either in addition to or in substitution for any other remuneration payable, subject to the provisions of the Companies Act.
- (c) For the purposes of this Memorandum of Incorporation, '**remuneration**' includes:
 - (i) fees paid to Directors for services rendered by them to or on behalf of the Company, including any amount paid to a person in respect of the person's accepting the office of Director;
 - (ii) salary, bonuses and performance-related payments;
 - (iii) expense allowances, to the extent that the Director is not required to account for the allowance;
 - (iv) contributions paid under any pension scheme not otherwise required to be disclosed in terms of subsection (4)(b);
 - (v) the value of any option or right given directly or indirectly to a Director, past Director or future Director, or person related to any of them, in terms of section 42 of the Companies Act;
 - (vi) financial assistance to a Director, past Director or future Director, or person related to any of them, for the subscription of options or Securities, or the purchase of Securities, in terms of section 44 of the Companies Act;
 - (vii) with respect to any loan or other financial assistance by the Company to a Director, past Director or future Director, or a person related to any of them, or any loan made by a third party to any such person, in terms of section 45 of the Companies Act, if the Company is a guarantor of that loan, the value of any interest deferred, waived or forgiven, or the difference in value between the interest that would reasonably be charged in comparable circumstances at fair market rates in an arm's length transaction, and the interest actually charged to the borrower, if less.

The Memorandum of Incorporation does not stipulate any additional qualifications or eligibility requirements other than those set out in the Companies Act for a person to become or remain a Director or a Prescribed Officer of the Company. The Board, through its Nominations Committee, shall recommend the eligibility of Directors, taking into account past performances and contributions.

Dividend and Distribution Policy

- (a) Renergen does not have a dividend policy with fixed dates on which entitlement to dividends arises.
- (b) Any interest distributions remaining unclaimed for a period of three years from the declaration date thereof may be forfeited by resolution of the Directors for the benefit of Renergen.
- (c) There are no arrangements in terms of which future dividends are waived or agreed to be waived.

14.10. Litigation Statement

There are no legal or arbitration proceedings (including any such proceedings that are pending or threatened) of which Renergen is aware, which may have or have, over the previous 12 months, had a material effect on the financial position of the Renergen Group.

14.11. Miscellaneous Information

- (a) Renergen has not paid any other fees or incurred any fees that are payable to a third party in lieu of Directors' fees.
- (b) No Director shall be appointed for life or for an indefinite period.
- (c) There will be variations in the estimated remuneration receivable by the Directors as a direct consequence of the Listing, including additional remuneration payable to the proposed additional director, being Dr King, who will be appointed as a Director on the date of Listing on ASX should the Listing be implemented as set out in paragraph 8.4 and 8.5 above.
- (d) Renergen has within 3 years preceding the Prospectus, not paid any amounts (whether in cash or in securities), nor given any benefits to any Directors or to any company in which Directors are beneficially interested, directly or indirectly or to any partnership, syndicate or other association of which the Directors are members, or to any Director as an inducement to become a Director or otherwise, or for services rendered by Directors, or otherwise for services rendered by Directors or by the associate company or associate entity in connection with the promotion or formation of the company.
- (e) No commission, placement fee, discount, brokerage other special terms has been paid or granted by Renergen in respect of any underwriting and issue or sale of Shares in Renergen in the 3 years preceding the Prospectus, save for an underwriting fee paid to Mazi Asset Management Proprietary Limited of 5% of the Rights Offer undertaken in November 2018, being ZAR5,456,498,41.
- (f) Save for being a Shareholder, no current Director has had any material beneficial interest, either direct or indirect, in the promotion of the Company.
- (g) Renergen has within 3 years preceding the Prospectus, not paid any amounts (whether in cash or in securities), nor given any benefits to any Directors or to any company in which Directors are beneficially interested, directly or indirectly or to any partnership, syndicate or other association of which the Directors are members, or to any Director as an inducement to become a Director or otherwise, or for services rendered by Directors, or otherwise for services rendered by Directors or by the associate company or associate entity in connection with the promotion or formation of the Company.
- (h) Save for being a Shareholder of Renergen, no current Director or Director who has resigned in the preceding 18 months, has or had any interest, directly or indirectly, in any transaction which is, or was, material to the business of Renergen and which was effected by Renergen during the current financial year or in any previous financial year which remains in any respect outstanding or unperformed.
- (i) There have been no material changes in the financial or trading position of Renergen since its results for the interim period ended 31 August 2018.

14.12. Documents Available for Inspection

The following documents, or copies thereof, will be available for inspection during normal business hours at the registered office of Renergen and at the offices of PSG Capital from 9 May 2019 until 31 May 2019 (both days inclusive):

- (a) the Memorandum of Incorporation of Renergen;
- (b) the audited financial statements of Renergen for the years ended 29 February 2016, 28 February 2017 and 28 February 2018;
- (c) service contracts of S Marani, F Ravele and N Mitchell;
- (d) Technical Report; and
- (e) a copy of this Prospectus.

15. GLOSSARY AND DEFINITIONS

The following terms used in this Prospectus have the following meanings:

\$	references to dollar amounts in Australian currency
AAS	Australian Accounting Standards
AltX	the equity market for small to medium-sized companies, operated by the JSE as the Alternative Exchange in Johannesburg
Applicant	a person who submits a valid Application Form pursuant to this Prospectus
Application	a valid application for CDIs pursuant to an Application Form
Application Form	an application form accompanying this Prospectus to apply to subscribe for CDIs pursuant to this Prospectus
Application Monies	monies that are payable in accordance with the terms of the Offer by an Applicant when submitting an Application
Anheuser-Busch	Anheuser-Busch InBev Limited
ASIC	Australian Securities and Investments Commission
ASX	ASX Limited ABN 98 008 624 691 or the Australian Securities Exchange operated by ASX Limited (as the context requires)
ASX Corporate Governance Principles	the ASX Corporate Governance Council's Corporate Governance Principles and Recommendations (the Fourth Edition)
ASX Listing Rules	the listing rules of ASX as amended or waived from time to time
ASX Settlement	ASX Settlement Pty Limited (ABN 98 008 504 432)
ASX Settlement Operating Rules	the operating rules of ASX Settlement Pty Limited
Audit and Risk Committee	a committee established by the Company to assist the Board in discharging its responsibility to exercise due care, diligence and skill
Bcf	Billion cubic feet
Black Knight Logistics	Black Knight Logistics (Pty) Limited, registered in South Africa, number 2016/241078/07
BLM	the Bureau of Land Management of the United States Department of the Interior
Board Charter	the document setting out the responsibilities of the Board, which has been prepared having regard to King IV's Corporate Governance principles, which are approved by JSE
Board	the Board of Directors of the Company as constituted from time to time
Bonus Shares	Shares which are subject to the additional terms summarised in Section 12.11
Broker	any ASX participating organisation selected by the Lead Manager and the Company to act as a broker to the Offer
Broker Firm Application Form	an application form provided by the Broker to apply to subscribe for CDIs pursuant to this Prospectus
Broker Firm Offer	the offer of CDIs under this Prospectus to Australian resident Retail Investors and Sophisticated Investors who have received a firm allocation from their Broker, as described in Section 11.4
Business Day	Monday to Friday inclusive, excluding public holidays in Sydney and Melbourne and any other day that ASX declares is not a Business Day
CEO	Chief Executive Officer
CFO	Chief Financial Officer
CHESS	the Clearing House Electronic Sub-Register System of share transfers operated by ASX Settlement
Closing Date	the date on which the Offer closes referred to in the Key Dates on page 7 of this Prospectus, unless the Company, in consultation with the Lead Manager, exercises its right to vary that date

CDI(s)	CHESS Depository Interest(s)
CNG	compressed natural gas
CNG Plant	Tetra4's CNG plant on the farm Mond van Doorn Rivier
Company or Renergen	Renergen Limited, registration number 2014/195093/06, a public company incorporated and registered in accordance with the laws of South Africa and its subsidiaries
Companies Act	the Companies Act, 2008 (Act 71 of 2008), as amended, in South Africa
Completion	completion of the issue of CDIs pursuant to the Offer
Corporations Act	Corporations Act 2001 (Cth)
Deeds of Access, Indemnity and Insurance	has the meaning given in Section 8.7
Director	a director of the Company
DMR	Department of Mineral Resources
Environmental Authorisation	means an environmental authorisation issued in response to Tetra4's environmental impact assessment, which is an analysis undertaken to predict the nature and extent of the consequences of a particular development on its surrounding environment, as required under Chapter 5 of the National Environmental Management Act 107 1998, South Africa
Evander Exploration Right	Tetra4's onshore petroleum exploration right at Evander, Mpumalanga in South Africa
Existing Shareholder	a holder of Shares as at the Prospectus Date
Exposure Period	the period of 7 days after the Prospectus Date, which period may be extended by the ASIC by not more than 7 days pursuant to Section 727(3) of the Corporations Act
General Public Offer	the offer of CDIs under this Prospectus to general Australian resident Retail Investors and Sophisticated Investors, as described in Section 11.4
GETSC	Governance, Ethics and Transformation, Social, Compensation Committee
Group	the Company and each of its subsidiaries
GST	goods and services tax
HIN	holder identification number
Historical Financial Information	has the meaning given in Section 9
IFRS	International Financial Reporting Standards
Technical Report	the report prepared by MHA Petroleum Consultants LLC set out in Section 5
Investigating Accountant	Grant Thornton Corporate Finance Pty Ltd
Independent Limited Assurance Report	the report prepared by the Investigating Accountant set out in Section 10
Issuer Sponsored	securities issued by an issuer that are held in uncertificated form without the holder entering into a sponsorship agreement with a broker or without the holder being admitted as an institutional participant in CHESS
Institutional Investor	investors who are (a) persons in Australia who are wholesale clients under 761(G) of the Corporations Act and either "professional investors or "sophisticated" under sections 708(8) and 708(11) of the Corporations Act; (b) institutional investors in certain other jurisdiction, as agreed by the Company and the Lead Manager, to whom offers CDIs may lawfully be made without the need for a lodged or registered Prospectus or other form of disclosure document or filing with, or approval by, any government agency (except to the extent Renergen, in its absolute discretion, are willing to comply with such requirements)
Institutional Offer	the offer to certain Institutional Investors in Australia and a number of other authorised jurisdictions to apply for CDIs under this Prospectus, as described in Section 11.4
JSE	the JSE Limited, registration number 2005/022939/06, a public company incorporated and registered in accordance with the laws of South Africa and licensed as an exchange under the Financial Markets Act, 2012 (Act 19 of 2012), as amended, in South Africa

Lead Manager	The Eights Group Pty Ltd ABN 33 627 471 738 CAR 001268505
Linde Global Helium	Linde Global Helium, a Division of Linde Gas North America LLC a Division, a Delaware Limited Liability Company
LHe	liquid helium
Listing	admission of the Company to the official list of ASX and quotation of the CDIs on ASX
LNG	liquid natural gas
LPG	liquid petroleum gas
Maximum Subscription	has the meaning given in Section 11.1
Megabus	Unitrans Passenger (Pty) Limited trading as Megabus, a company owned by KAP Industrial Holdings Limited, one of the largest listed logistics companies in South Africa
Memorandum of Incorporation	means the memorandum of incorporation of the Company
Minimum Subscription	has the meaning given in Section 11.3
New Plant	the processing plant, which Tetra4 intends to build which consists of a booster compressor, gas scrubbing facility, a LNG plant and a helium liquefier
Norton Rose Fulbright SA	Norton Rose Fulbright South Africa Inc
Offer	the invitation in this Prospectus to subscribe for CDIs or Options, comprising the Institutional Offer, Broker Firm Offer, the Public Offer and the Options Offer
Offer Period	the period during which the Offer is open, being from the Opening Date to the Closing Date
Offer Price	\$0.80 per CDI
Official List	the official list of ASX
Official Quotation	official quotation of the CDIs by ASX in accordance with the ASX Listing Rules
Opening Date	the opening date of the Public Offer referred to in the Key Dates on page vii of this Prospectus
Option	an option to acquire an unissued Share or CDI
Options Offer	the offer of Options to the Options Offerees under this Prospectus as set out in Section 11.5, among other parts of this Prospectus
Options Offerees	the Lead Manager, the Corporate Advisor and Dr King
PASA	the Petroleum Agency of South Africa
PRMS	Petroleum Resources Management System
Prospectus	Prospectus means the original prospectus dated 23 April 2019, superseded by the Replacement Prospectus dated 8 May 2019
Prospectus Date	means 8 May 2019
Rand or ZAR or R	South Africa rand, the lawful currency of South Africa
Registry	Computershare Investor Services Pty Limited
Related Party	has the meaning given in Section 228 of the Corporations Act
Replacement Prospectus	means the replacement prospectus dated 8 May 2019
Replacement Prospectus Date	means 8 May 2019
Restricted Securities	has the meaning given to that term in the ASX Listing Rules
Restriction Agreement	a restriction agreement in a form set out in the ASX Listing Rules
Retail Investor	a person who is not an Institutional Investor
SAMOG Code	Society of Petroleum Engineers Code being the South African Code for the Reporting of Oil and Gas Resources

Section	a Section of this Prospectus
Share	a fully paid ordinary share in the capital of the Company
Shareholder	a registered holder of Shares in the Company
Solicitor's Report	the report prepared by Norton Rose Fulbright SA set out in Section 6
South Africa	the Republic of South Africa
SRN	Shareholder Reference Number
Stage One	the first phase of the Virginia Gas Project, which involves connecting 12 existing gas wells to a new gas pipeline and constructing a new helium and LNG plant with a maximum daily production capacity of 74.6 mcf (or about 350 kg) of liquid helium and 2,700GJ (or about 50 tons) of LNG
Stage Two	the second phase of the Virginia Gas Project predicted to involve the drilling and connection of horizontal wells to a high-pressure pipeline of the New Plant, to complete the building of a far larger helium and LNG facility
Subsidiary	has the meaning given in Section 9 of the Corporations Act
Tetra4	Tetra4 South Africa Exploration and Production Proprietary Limited, registration number 2005/012157/07, a private company incorporated in accordance with the laws of South Africa, of which the Company owns 90% of the issued ordinary shares and 10% of the issued ordinary shares held and owned by Cheryl Sjoberg

Appendix

APPENDIX A –SIGNIFICANT ACCOUNTING POLICIES

1 Presentation of Historical Financial Information

The consolidated Historical Financial Information set out in the Prospectus has been prepared in accordance with International Financial Reporting Standards and the requirements of the Companies Act, the JSE Listings Requirements, the SAICA Financial Reporting Guides as issued by the Accounting Practices Committee and the financial reporting pronouncements as issued by the Financial Reporting Standards Council.

1.1 Consolidation

Basis of consolidation

The consolidated Historical Financial Information incorporate the financial information of the Group and all investees which are controlled by the Group.

The results of subsidiaries are included in the consolidated financial information from the effective date of acquisition to the effective date of disposal.

All intra-group transactions, balances, income and expenses are eliminated in full-on consolidation.

Non-controlling interests in the net assets of consolidated subsidiaries are identified and recognised separately from the Group's interest therein and are recognised within equity. Losses of subsidiaries attributable to non-controlling interests are allocated to the non-controlling interest even if this results in a debit balance being recognised for non-controlling interest.

Transactions which result in changes in ownership levels, where the Group has control of the subsidiary both before and after the transaction are regarded as equity transaction and are recognised directly in the statement of changes in equity.

Business combinations

The Group accounts for business combinations using the acquisition method of accounting. The cost of the business combination is measured as the aggregate of the fair values of assets given, liabilities incurred or assumed and equity instruments issued. Costs directly attributable to the business combination are expensed as incurred, except the costs to issue debt which are amortised as part of the effective interest and costs to issue equity which are included in equity. The excess of the consideration transferred over the fair value of the Group's share of the identifiable net assets of the subsidiary acquired is recorded as goodwill. If the consideration transferred is less than the Group's share of the fair value of the net assets of the subsidiary acquired, the difference is recognised directly in the statement of comprehensive income. All intergroup transactions, balances and unrealised gains and losses on transactions between entities of the Group have been eliminated. When necessary, accounting policies of subsidiaries have been changed to ensure consistency with the policies adopted by the Group.

To apply IFRS 3, the standard on business combination, the assets acquired, and the liabilities assumed must constitute a business, otherwise the reporting entity accounts for the transaction or event as an asset acquisition.

Transaction with non-controlling interest

Transactions with non-controlling interests are treated as transactions with equity owners of the Group. For purchases from non-controlling interests, the difference between any consideration paid and the relevant share acquired of the carrying value of net assets of the subsidiary is recorded in equity. Gains or losses on disposals to non-controlling interests are also recorded in equity where there is no loss of control.

Step Acquisitions

When the Group obtains control of a previously held joint venture, associate or financial instrument, the Group re-measures any previously held interest at fair value and takes this amount into account in determining goodwill. Gains or losses are recognised in profit or loss or other comprehensive income.

1.2 Property, plant and equipment

Property, plant and equipment is carried at cost less accumulated depreciation and accumulated impairment losses.

Property, plant and equipment is initially measured at cost. Cost includes all of the expenditure which is directly attributable to the acquisition or construction of the asset.

Expenditure incurred subsequently for major services, additions to or replacements of parts of property, plant and equipment are capitalised if it is probable that future economic benefits associated with the expenditure will flow to the Group and the cost can be measured reliably. Day to day servicing costs are included in profit or loss in the year in which they are incurred.

Depreciation is charged to write off the asset's carrying amount over its estimated useful life to its estimated residual value, using a method that best reflects the pattern in which the asset's economic benefits are consumed by the Company. Construction assets are not depreciated as they are not ready and available for the use intended by management. Leased assets are depreciated in a consistent manner over the shorter of their expected useful lives and the lease term.

The useful lives of items of property, plant and equipment have been assessed as follows:

Item	Depreciation method	Average useful life
Computer software	Straight line	10 years
Furniture and fittings	Straight line	6 years
IT equipment	Straight line	3 years
Assets under Construction	Not applicable	Not applicable
Motor vehicles	Straight line	5 years
Office equipment	Straight line	6 years
Plant and machinery	Straight line	10 years
Leasehold improvements- Furniture and fittings	Straight line	6 years
Leasehold improvements-Office equipment	Straight line	6 years
Finance - Motor vehicle	Straight line	5 years

The residual value, useful life and depreciation method of each asset are reviewed at the end of each reporting year. If the expectations differ from previous estimates, the change is accounted for prospectively as a change in accounting estimate.

Each part of an item of property, plant and equipment with a cost that is significant in relation to the total cost of the item is depreciated separately.

The depreciation charge for each year is recognised in profit or loss unless it is included in the carrying amount of another asset.

Impairment tests are performed on property, plant and equipment when there is an indicator that they may be impaired. When the carrying amount of an item of property, plant and equipment is assessed to be higher than the estimated recoverable amount, an impairment loss is recognised immediately in profit or loss to bring the carrying amount in line with the recoverable amount.

An item of property, plant and equipment is derecognised upon disposal or when no future economic benefits are expected from its continued use or disposal. Any gain or loss arising from the derecognition of an item of property, plant and equipment is included in profit or loss when the item is derecognised. The gain or loss arising from the derecognition of an item of property, plant and equipment is determined as the difference between the net disposal proceeds, if any, and the carrying amount of the item.

1.3 Significant judgements and sources of estimation uncertainty

In preparing the Historical Financial Information, management is required to make estimates and assumptions that affect the amounts represented in the financial statements and related disclosures. Use of available information and the application of judgement is inherent in the formation of estimates. Actual results in the future could differ from these estimates which may be material to the financial information. Significant judgements include:

Loans and receivables

The Company assesses its loans and receivables for impairment at the end of each reporting period. In determining whether an impairment loss should be recorded in profit or loss, the company makes judgements as to whether there is observable data indicating a measurable decrease in the estimated future cash flows from a financial asset.

The impairment for loans and receivables is calculated on a subsidiary basis, based on historical loss ratios, and other indicators present at the reporting date that correlate with defaults on the subsidiary. These annual loss ratios are applied to loan balances in the subsidiary.

Impairment testing

The recoverable amounts of cash-generating units and individual assets have been determined based on the higher of value-in-use calculations and fair values less costs to sell. These calculations require the use of estimates and assumptions. It is reasonably possible that the assumption may change which may then impact our estimations and may then require a material adjustment to the carrying value of goodwill and tangible assets.

The Company reviews and tests the carrying value of assets when events or changes in circumstances suggest that the carrying amount may not be recoverable. Assets are grouped at the lowest level for which identifiable cash flows are largely independent of cash flows of other assets and liabilities. If there are indications that impairment may have occurred, estimates are prepared of expected future cash flows for each group of assets. Expected future cash flows used to determine the value in use of tangible assets are inherently uncertain and could materially change over time. They are significantly affected by several factors.

Taxation

Judgement is required in determining the provision for income taxes due to the complexity of legislation. There are many transactions and calculations for which the ultimate tax determination is uncertain during the ordinary course of business. The Company recognises liabilities for anticipated tax audit issues based on estimates of whether additional taxes will be due. Where the final tax outcome of these matters is different from the amounts that were initially recorded, such differences will impact the income tax and deferred tax provisions in the period in which such determination is made.

The Company recognises the net future tax benefit related to deferred income tax assets to the extent that it is probable that the deductible temporary differences will reverse in the foreseeable future. Assessing the recoverability of deferred income tax assets requires the company to make significant estimates related to expectations of future taxable income. Estimates of future taxable income are based on forecast cash flows from operations and the application of existing tax laws in each jurisdiction. To the extent that future cash flows and taxable income differ significantly from estimates, the ability of the Company to realise the net deferred tax assets recorded at the end of the reporting period could be impacted. As of the last financial year the Company paid no tax and has assessed losses, however as a South African company would be subject to a 28% income tax rate once assessed losses have been utilised.

Useful lives of depreciable assets

Management reviews its estimate of the useful lives and residual values of depreciable assets and intangible assets at each reporting date, based on the expected utility of the assets. Uncertainties in these estimates relate to technical obsolescence or depleting gas reserve volumes that may change the utility of certain assets.

Revenue

The determination of Compressed Natural Gas (CNG) sales revenue requires management to continuously monitor the monthly average market diesel price.

The determination of management fees revenue requires management to assess the costs incurred by head office on behalf of its subsidiaries.

1.4 Intangible assets

Intangible assets are initially recognised at cost.

Expenditure on research (or on the research phase of an internal project) is recognised as an expense when it is incurred. An intangible asset arising from development (or from the development phase of an internal project) is recognised when:

- it is technically feasible to complete the asset so that it will be available for use or sale;
 - there is an intention to complete and use or sell it;
 - there is an ability to use or sell it;
 - it will generate probable future economic benefits;
 - there are available technical, financial and other resources to complete the development and to use or sell the asset; or the expenditure attributable to the asset during its development can be measured reliably.
- Intangible assets are carried at cost less any accumulated amortisation and any impairment losses.

The amortisation period and the amortisation method for intangible assets are reviewed every period-end.

Reassessing the useful life of an intangible asset with a finite useful life after it was classified as indefinite is an indicator that the asset may be impaired. As a result, the asset is tested for impairment and the remaining carrying amount is amortised over its pattern of use.

Item	Amortisation
Exploration rights	Pattern of use (units)
Production right	Pattern of use (units)
Domain names	Indefinite useful lives

1.5 Financial instruments

Initial recognition and measurement

Financial instruments are recognised initially when the Group becomes a party to the contractual provisions of the instruments.

The Group classifies financial instruments, or their component parts, on initial recognition as a financial asset, a financial liability or an equity instrument in accordance with the substance of the contractual arrangement.

Financial instruments are measured initially at fair value, except for equity investments for which a fair value is not determinable, which are measured at cost and are classified as available-for-sale financial assets.

For financial instruments which are not at fair value through profit or loss, transaction costs are included in the initial measurement of the instrument.

Subsequent measurement

Loans and receivables are subsequently measured at amortised cost, using the effective interest method, less accumulated impairment losses.

1.5.1 Financial Assets

Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted on an active market. They arise when the Group provides money, goods or services directly to a debtor with no intention of trading the receivable. They are included in current assets, except for maturities of greater than 12 months after the balance sheet date which are classified as non-current assets. Loans and receivables are initially recognised at fair value including originating fees and transaction costs, and subsequently measured at amortised cost using the effective interest method less provision for impairment. Loans and receivables include trade receivables, amounts owed by associates, amounts owed by joint ventures, accrued income and cash and cash equivalents.

Trade and receivables

Trade receivables are measured at initial recognition at fair value and are subsequently measured at amortised cost using the effective interest rate method. Appropriate allowances for estimated irrecoverable amounts are recognised in profit or loss when there is objective evidence that the asset is impaired. Significant financial difficulties of the debtor, probability that the debtor will enter bankruptcy or financial reorganisation, and default or delinquency in payments (more than 30 days overdue) are considered indicators that the trade receivable is impaired. The allowance recognised is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows discounted at the effective interest rate computed at initial recognition.

The carrying amount of the asset is reduced using an allowance account, and the amount of the loss is recognised in profit or loss within operating expenses. When a trade receivable is uncollectable, it is written off against the allowance account for trade receivables. Subsequent recoveries of amounts previously written off are credited against operating expenses in profit or loss.

Cash and cash equivalents

In the consolidated historical financial position information cash and cash equivalents includes cash in hand.

Restricted Cash

The Company has cash deposits in call accounts that have been ring-fenced. These cash deposits are used for environmental rehabilitation. This cash is not treated as cash and cash equivalent.

Other financial assets

Other financial assets held at amortised cost include a loan to minority Shareholders held as current assets. The loan is held at fair value and is repayable on demand.

1.5.2 Financial Liabilities

Financial liabilities held at amortised cost include trade payables, accruals, other payables and borrowings.

Trade and other payables

Trade payables are initially measured at fair value, and are subsequently measured at amortised cost, using the effective interest rate method.

Other financial liabilities

Other financial liabilities are recognised initially at fair value, net of transaction costs, and are subsequently stated at amortised cost and include accrued interest and prepaid interest. Other financial liabilities are classified as current liabilities unless the Group has an unconditional right to defer settlement of the liability for at least 12 months from the balance sheet date.

1.6 Share-based payments

Long-term employee benefits – Bonus Shares

The Group operates an equity-settled compensation plan where the Governance, Ethics and Transformation, Social, Compensation Committee makes an award of forfeitable shares to the executive directors, prescribed officers, senior management and key employees of the Group. These are referred to as Bonus Shares. The number of Bonus Shares awarded depends on the individual's annual cash bonus that has been deferred. The Bonus Shares vest after three years' service from grant date. After this is the only vesting condition pertaining to the Bonus Shares. No other vesting conditions exist. The terms and conditions of the Bonus Shares, after vesting are the same as those traded publicly.

The fair-value of the equity-settled instruments is measured by reference to the fair value of the equity instrument granted. Fair value is based on a 30-day volume weighted average market price of the equity-settled instruments granted. The grant date fair value of the equity-settled instruments is recognised as an employee benefit expense over the vesting Period, with a corresponding increase in the share-based payment reserve.

1.7 Revenue

Revenue is recognised to the extent that it is probable that economic benefits will flow to the Group and the amount of revenue can be reliably measured. Revenue arising from Compressed Natural Gas (CNG) sales is recognised at the fair value of the consideration received or receivable, once the significant risks and rewards of ownership have passed to the buyer. These criteria are typically met when the CNG is delivered to the customer. The price of CNG is determined by market diesel price forces. Monthly pricing is based on the monthly average diesel price less agreed discounts in the month of settlement.

1.8 Tax

Current tax assets and liabilities

Current tax for current and prior periods is, to the extent unpaid, recognised as a liability. If the amount already paid in respect of current and prior periods exceeds the amount due for those periods, the excess is recognised as an asset.

Current tax liabilities (assets) for the current and prior periods are measured at the amount expected to be paid to (recovered from) the tax authorities, using the tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period.

Deferred tax assets and liabilities

A deferred tax liability is recognised for all taxable temporary differences, except to the extent that the deferred tax liability arises from the initial recognition of an asset or liability in a transaction which at the time of the transaction, affects neither accounting profit nor taxable profit (tax loss).

A deferred tax asset is recognised for all deductible temporary differences to the extent that it is probable that taxable profit will be available against which the deductible temporary difference can be utilised. A deferred tax asset is not recognised when it arises from the initial recognition of an asset or liability in a transaction at the time of the transaction, affects neither accounting profit nor taxable profit (tax loss).

Deferred tax assets and liabilities are measured 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 (and tax laws) that have been enacted or substantively enacted by the end of the reporting period.

Tax expenses

Current and deferred taxes are recognised as income or an expense and included in profit or loss for the period, except to the extent that the tax arises from:

1. a transaction or event which is recognised, in the same or a different period, to other comprehensive income, or
2. a business combination.

Current tax and deferred taxes are charged or credited to other comprehensive income if the tax relates to items that are credited or charged, in the same or a different period, to other comprehensive income.

Current tax and deferred taxes are charged or credited directly to equity if the tax relates to items that are credited or charged, in the same or a different period, directly in equity.

1.9 Stated capital and equity

Ordinary shares are classified as equity.

Incremental costs directly attributable to the issue of new shares are shown in equity as a deduction from the proceeds.

1.10 Provisions and contingencies

The amount of a provision is the present value of the expenditure expected to be required to settle the obligation.

Provisions are not recognised for future operating losses.

Environmental Rehabilitation Provision

Long-term environmental obligations are based on the Group's environmental management plans, in compliance with applicable environmental and regulatory requirements. The estimated costs of rehabilitation are reviewed annually and adjusted as appropriate for changes in legislation, technology or other circumstances. Cost estimates are not reduced by the potential proceeds from the sale of assets or from plant clean up at closure. Changes in estimates are capitalised or reversed against the relevant asset to the extent that it meets the definition of dismantling and removing the item and restoring the site on which it is located. Costs that relate to an existing condition caused by past operations and do not have a future economic benefit are recognised in profit or loss.

The Group's operations are required by law to undertake rehabilitation works as part of their ongoing operations. The Company makes contributions into environmental rehabilitation obligation funds and holds guarantees to fund the estimated costs,

Royalty Provision

The South African Mineral and Petroleum Resource Royalty Act 2008 (Royalty Act) imposes a royalty on refined mineral resources that have undergone a comprehensive level of beneficiation such as smelting and refining as defined in Schedule 1 of the Royalty payable to the State. The royalty in respect of refined minerals is calculated by dividing earnings before interest and taxes (EBIT) by the product of 12.5 times gross revenue calculated as a percentage, plus an additional 0.5%. EBIT refers to taxable mining income (with certain exceptions such as no deduction for interest payable and foreign exchange losses) before assessed losses but after capital expenditure. A maximum royalty of 5% of mining revenue has been introduced on refined minerals.

The natural gas is compressed, scrubbed and dried in the compressor, the compressor is considered as the "refinery" and thus, the royalty is calculated based on the condition of the gas at the inlet of the compressor.

1.11 Segment Information

An operating segment is a component of the Group that engages in business activities which may earn revenues and incur expenses and whose operating results are regularly reviewed by the Group's chief operating decision maker (Renergen Limited's Chief Executive Officer) to allocate resources and assess performance and for which discrete financial information is available.

The Group has the following reportable segments:

- Corporate Head Office

Corporate head office is a segment where all investment decisions are made. Renergen Limited is investment holding company focused on investing in prospective green projects

- Tetra4 (Pty) Ltd

Tetra4 explores, develops and sells compressed natural gas to the South African market.

- Mega Power Renewables

Mega Power Renewables was formerly a subsidiary of the Company which held a hydroelectric project in Ivory Coast. Renergen disposed of this subsidiary in February 2018.

1.12 Foreign currency translation

Functional and Presentation Currency

All items in the Historical Financial Information of the Group's subsidiaries, joint arrangements and associates are measured using the currency of the primary economic environment in which the entity operates (the functional currency). The Group's consolidated financial information is presented in South African rand, which is Renergen's functional currency and the Group's presentation currency.

Transactions and balances

Foreign currency transactions are translated into the functional currency using the average exchange rates for the relevant month. These average exchange rates approximate the spot rate at the date of the transaction.

Gains and losses resulting from the settlement of such transactions, and from the translation of monetary assets and liabilities denominated in foreign currencies at closing rates, are recognised in the statement of comprehensive income.

Foreign Operations

The results and the financial position of all Group subsidiaries, joint arrangements and associates that have a functional currency that is different from the presentation currency of the Group are translated into the presentation currency as follows:

- Assets and liabilities for each statement of financial position presented are translated at the closing rate at the date of that statement of financial position;
- Income and expenses for each statement of comprehensive income presented are translated at the average exchange rates for the period presented; and
- All resulting translation differences are recognised in other comprehensive income and presented as a separate component of equity in the foreign currency translation reserve (FCTR).

On consolidation, exchange rate differences arising from the translation of the net investment in foreign operations are also taken to the FCTR. The Group's net investment in a foreign operation is equal to the equity investment plus all monetary items that are receivable from or payable to the foreign operation, for which settlement is neither planned nor likely to occur in the foreseeable future.

When a foreign operation is disposed of or sold, and the Group loses control, joint control or significant influence over the foreign operation, all related exchange rate differences recognised in other comprehensive income and accumulated in equity in the FCTR are reclassified from equity to the statement of comprehensive income as part of the profit or loss on the sale of the operation. On partial disposal of a foreign subsidiary, where a change occurs in the absolute ownership percentage held by the Group and control is not lost, a proportionate share of all related exchange rate differences recognised in other comprehensive income is re-attributed to the non-controlling interests in that foreign operation. On partial disposal of a foreign joint arrangement or associate, where a change occurs in the absolute ownership percentage held by the Group and joint control or significant influence is not lost, a proportionate share of all related exchange rate differences recognised in other comprehensive income are reclassified from equity to the statement of comprehensive income.

Goodwill and fair value adjustments arising on the acquisition of a foreign subsidiary are treated as assets and liabilities of the foreign subsidiary and are translated at the closing rate.

APPENDIX B – ADDITIONAL FINANCIAL STATEMENTS

Historical consolidated Statement of Profit and Loss and Comprehensive Income

ZAR'000	Unadjusted Renergen Reviewed	Rights Offer	Renergen Adjusted	Con- vertible Notes	Maximum Pro forma transactions adjustments			Dr King signing options agreement	Maximum Pro forma as at 31-Aug-18 (ZAR'000)
	As at 31-Aug-18		As at 31-Aug-18		Public Offer costs	Lead Manager Options	Corporate Adviser Options		
Adjustment notes	1	2		3	4	5	6	7	
Sales	1,753		1,753						1,753
Cost of sales	(1,623)	-	(1,623)		-	-	-	-	(1,623)
Gross Profit	129	-	129		-	-	-	-	129
Other Income	691	-	691		-				691
Share Based Payments	(153)	-	(153)		-		(2,535)	(20)	(2,709)
Operating Expenses	(18,441)	(717)	(19,158)		(3,790)				(22,948)
Operating Loss	(17,774)	(717)	(18,491)	-	(3,790)	-	(2,535)	(20)	(24,837)
Interest Income	124	-	124		-				124
Imputed Interest	(1,931)	-	(1,931)		-				(1,931)
Interest Expense	(39)	-	(39)	(436)	-	-	-	-	(475)
Total Loss before tax	(19,620)	(717)	(20,337)	(436)	(3,790)	-	(2,535)	(20)	(27,119)
Taxation	2,153		2,153						2,153
Total loss and comprehensive loss for the period	(17,467)	(717)	(18,184)	(436)	(3,790)	-	(2,535)	(20)	(24,966)
Total loss and Comprehensive loss attributable to parent	(16,008)	(717)	(16,725)	(436)	(3,790)	-	(2,535)	(20)	(23,507)
Total loss and Comprehensive loss attributable to Non-Controlling Interest	(1,459)	-	(1,459)	-	-				(1,459)
Total loss and comprehensive loss for the period	(17,467)	(717)	(18,184)	(436)	(3,790)	-	(2,535)	(20)	(24,966)

- 1 Unadjusted Financial information is an extract from Renergen's Reviewed Condensed Consolidated financial results for six months ended 31 August 2018
- 2 Rights offer completed in November 2018 raising R125 million for an issue of 16,666,667 shares for R7.50 per shares, total costs of R6 million associated with the Rights Offer,
- 3 500 convertible notes issued at \$1000 per note for a term of 18 months converted at the option of the holder, the note will not be converted at IPO. The notes have a coupon rate of 15% per annum, 5% of interest is payable quarterly and 10% interest is capitalized. This adjustment will have a continuing effect. At the end of the 18 months, the note will have a capital balance of \$579,846,71 converted at ZAR7.50 exchange rate of \$1:ZAR10.56
- 4 Public offer of shares at \$0.80 per share for a maximum of 12,500,000 shares, raising \$10 million (R105,596,620.91). Expenses associated the offer are R3.7 million. Exchange rate of \$1:ZAR10.56. This adjustment will have a continuing effect.
- 5 Lead Manager's 3,379,072 Options exercised at \$0.96 strike price converted at \$1:ZAR10.56. The Options are valued at R2,851,817 at grant date and offered for services rendered. This adjustment will have a continuing effect.
- 6 Corporate Adviser's 1,689,536 options exercised at \$0.96 strike price converted at \$1:ZAR10.56. The Options are valued at R2,851,818 at grant date and offered for advisory services rendered. This adjustment will have a continuing effect.
- 7 Dr King's 1,000,000 Options exercised at \$0.96 strike price converted at \$1:ZAR 10.56. The options offered to Dr King will be valued at R20,459 at grant date This adjustment will have a continuing effect.

ZAR'000	Unadjusted Renegen Reviewed	Maximum Pro forma transactions adjustments							Maximum Pro forma as at	Total	
	As at 31-Aug-18	Rights Offer adjust- ments	Renegen Adjusted As at 31-Aug-18	Convertible Notes	Public Offer costs	Lead Manager Options	Corporate Adviser Options	Dr King signing options agreement	31-Aug-18 (ZAR'000)		
Adjustment notes	1	2		3	4	5	6	7			
Number of shares in issue '000	83,469	16,667	100,136	816	12,500	3,379	1,690	1,000	119,521	36,052	43%
Weighted Average Number of Shares '000	82,372	16,667	99,039	816	12,500	3,379	1,690	1,000	118,424	36,052	44%
Stated Capital	784,598	125,000	909,598	6,123	105,597	34,256	14,273	10,138	1,079,984		
Net Asset value per share	87.32								22.56	(65)	-74%
Tangible Net Asset Value per share	6.14								17.19	11	180%
Basic Loss attributable to the parent	(16,008)	(717)	(16,725)	(436)	(3,790)	-	(2,535)	(20)	(23,507)		
Dilution Adjustments	-	-	-		-				-		
Diluted Loss attributable to the parent	(16,008)	(717)	(16,725)	(436)	(3,790)	-	(2,535)	(20)	(23,507)		
Loss per share	(19.43)	2.55	(16.89)						(19.85)	(0.4)	2%
Diluted loss per share	(19.43)	2.55	(16.89)						(19.85)	(0.4)	2%
Basic Loss attributable to the parent	(16,008)	(717)	(16,725)	(436)	(3,790)	-	(2,535)	(20)	(23,507)		
Headline loss Adjustments	-	-	-	-	-	-	-	-	-		
Diluted Headline Loss attributable to the parent	(16,008)	(717)	(16,725)	(436)	(3,790)	-	(2,535)	(20)	(23,507)		
Headline Loss per share	(19.43)	2.55	(16.89)						(19.85)	(0.4)	2%
Diluted Headline loss per share	(19.43)	2.55	(16.89)						(19.85)	(0.4)	2%

- 1 Unadjusted Financial information is an extract from Renegen' s Reviewed Condensed Consolidated financial results for six months ended 31 August 2018
- 2 Rights offer completed in November 2018 raising R125million for an issue of 16 666 667 shares for R7.50 per shares, total costs of R6million associated with the Rights Offer,
- 3 500 convertible notes issued at \$1000 per note for a term of 18 months converted at the option of the holder, the note will not be converted at IPO. The notes have a coupon rate of 15% per annum, 5% of interest is payable quarterly and 10% interest is capitalized. This adjustment will have a continuing effect. At the end of the 18 months, the note will have a capital balance of \$579 846.71 converted at ZAR7.50 exchange rate of \$1:ZAR10.56
- 4 Public offer of shares at \$0.80 per share for a maximum of 12,500,000 shares, raising \$10 million (R105,596,620.91). Expenses associated the offer are R3.7 million. Exchange rate of \$1:ZAR10.56. adjustment
- 5 Lead Manager's 3,379,072 Options exercised at \$0.96 strike price converted at \$1:ZAR 10.56. The Options are valued at R2,851,817 at grant date and offered for services rendered. This adjustment will have a continuing effect.
- 6 Corporate Adviser's 1,689,536 options exercised at \$0.96 strike price converted at \$1:ZAR 10.56. The Options are valued at R2,851,818 at grant date and offered for advisory services rendered. This adjustment will have a continuing effect.
- 7 Dr King's 1,000,000 Options exercised at AUD\$0.96 strike price converted at AUD1:ZAR 10.56. The Options offered to Dr King will be valued at R20,459 at grant date This adjustment will have a continuing effect.
- 8 There are no other post balance sheet events which necessitate adjustment to the pro forma financial information
- 9 All the adjustments are of a continuing nature except for once-off transactions and IFRS2 costs

**Independent
Reporting
Accountants'
Assurance Report**

The Directors
Renergen Limited
1 Bompas Road
Dunkeld West
2196

8 May 2019

Dear Sirs

Independent Reporting Accountants' Assurance Report on the compilation of the pro forma financial information of Renergen Limited ("Renergen")

We have completed our assurance engagement to report on the compilation of pro forma financial information of Renergen by the Directors. The pro forma financial information, in Section 9.7 and Appendix B of the Renergen Prospectus to be issued on or about 8 May 2019 ("the Prospectus"), consists of the pro forma statement of financial position, the pro forma statement of comprehensive income and related notes. The pro forma financial information is required to be presented in terms of the Fundamental Transactions and Takeover Regulations published in terms of the Companies Act ("the Regulations") and has been compiled on the basis of the applicable criteria specified in the JSE Limited ("JSE") Listings Requirements, as accepted by the Takeover Regulation Panel.

The pro forma financial information has been compiled by the directors to illustrate the impact of the corporate action or event, described in Section 9.7 and Appendix B, on Renergen's financial position as at 31 August 2018 and Renergen's financial performance for the period then ended, as if the corporate action or event had taken place at 31 August 2018 for purposes of statement of financial position and at 1 March 2018 for purposes of statement of comprehensive income. As part of this process, information about Renergen's financial position and financial performance has been extracted by the Directors from Renergen's audited financial statements for the period ended 31 August 2018.

Directors' responsibility for the pro forma financial information

The directors are responsible for compiling the pro forma financial information on the basis of the applicable criteria specified in the Listings Requirements and described in Section 9.7 and Appendix B and as described in the notes to the consolidated pro forma statement of financial position and pro forma statement of comprehensive income.

Our independence and quality control

We have complied with the independence and other ethical requirement of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

The firm applies International Standard on Quality Control 1 and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

BDO South Africa Incorporated
Registration number: 1995/002310/21
Practice number: 905526
VAT number: 4910148685

National Executive: PR Badrick • HN Bhaga-Muljee • S Dansie • BJ de Wet • I Hashim • HCS Lopes (Johannesburg Office Managing Partner)
• SM Somaroo • Dr FD Schneider • ME Stewart (Chief Executive) • IM Scott • R Teixeira • MS Willmott

The company's principal place of business is at 52 Corlett Drive, Illovo, Johannesburg, where a list of directors' names is available for inspection. BDO South Africa Incorporated, a South African personal liability company, is a member of BDO International Limited, a UK company limited by guarantee, and forms part of the international BDO network of independent member firms.

Reporting accountants' responsibility

Our responsibility is to express an opinion about whether the pro forma financial information has been compiled, in all material respects, by the directors on the basis specified in the Listings Requirements based on our procedures performed. We conducted our engagement in accordance with the International Standard on Assurance Engagements ("ISAE") 3420: Assurance Engagements to Report on the Compilation of Pro Forma Financial Information Included in a Prospectus which is applicable to an engagement of this nature. This standard requires that we comply with ethical requirements and plan and perform our procedures to obtain reasonable assurance about whether the pro forma financial information has been compiled, in all material respects, on the basis specified in the Listings Requirements.

For purposes of this engagement, we are not responsible for updating or reissuing any reports or opinions on any historical financial information used in compiling the pro forma financial information, nor have we, in the course of this engagement, performed an audit or review of the financial information used in compiling the pro forma financial information.

As the purpose of pro forma financial information included in a Prospectus is solely to illustrate the impact of a significant corporate action or event on unadjusted financial information of the entity as if the corporate action or event had occurred or had been undertaken at an earlier date selected for purposes of the illustration, we do not provide any assurance that the actual outcome of the event or transaction would have been as presented.

A reasonable assurance engagement to report on whether the pro forma financial information has been compiled, in all material respects, on the basis of the applicable criteria involves performing procedures to assess whether the applicable criteria used in the compilation of the pro forma financial information provides a reasonable basis for presenting the significant effects directly attributable to the corporate action or event, and to obtain sufficient appropriate evidence about whether:

- the related pro forma adjustments give appropriate effect to those criteria; and
- the pro forma financial information reflects the proper application of those adjustments to the unadjusted financial information.

Our procedures selected depend on our judgment, having regard to our understanding of the nature of the company, the corporate action or event in respect of which the pro forma financial information has been compiled, and other relevant engagement circumstances.

Our engagement also involves evaluating the overall presentation of the pro forma financial information.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

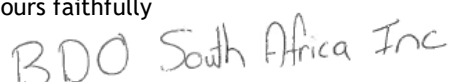
Opinion

In our opinion, the pro forma financial information has been compiled, in all material respects, on the basis of the applicable criteria specified by the Listings Requirements, the Companies Act, the Regulations and as described in Section 9.7 and Appendix B.

Consent

This report on the pro forma statement of financial position is included solely for the information of the Shareholders. We consent to the inclusion of our report on the pro forma statement of financial position, pro forma statement of comprehensive income and the references thereto, in the form and context in which they appear.

Yours faithfully



BDO South Africa Incorporated
Registered Auditors

J Barradas
Director
Registered Auditor

8 May 2019

CORPORATE DIRECTORY

Current Board of Directors Mr Brett Kimber (Independent Non-Executive Chairman) Mr Stefano Marani (Executive Director and CEO) Mr Nick Mitchell (Executive Director and COO) Ms Fulu Ravele (Executive Director and CFO) Dr David King (Proposed Independent Non-Executive Director) Mr Mbali Swana (Independent Non-Executive Director) Mr Luigi Matteucci (Independent Non-Executive Director) Dr Bane Maleke (Independent Non-Executive Director) Mr Francois Olivier (Non-Independent, Non-executive Director)	Australian Legal Advisor Norton Rose Fulbright Australia Level 15 485 Bourke Street Melbourne VIC 3000 Australia
Company Secretary Acorim Proprietary Limited 2nd Floor, North Block, Hyde Park Office Tower Corner of 6th Rd and Jan Smuts Avenue Hyde Park, Sandton, 2196 South Africa	Technical Expert MHA Petroleum Consultants LLC 730 17th Street Suite 410 Denver, CO 80202 United States of America
Registered address in Australia Renegen Limited c/o Norton Rose Fulbright Australia Level 15 485 Bourke Street Melbourne VIC 3000 Australia	Registry Computershare Investor Services Pty Limited Yarra Falls, 452 Johnston Street Abbotsford VIC 3067 Australia
Auditor BDO (SA) Incorporated Wanderers Office Park 52 Corlett Drive Illovo, 2196 South Africa	Australian Investigating Accountant Grant Thornton Corporate Finance Pty Ltd Level 17 383 Kent Street Sydney NSW 2000 Australia
Lead Manager to the Offer Level 26 1 Eligh Street Sydney NSW 2000 Australia	Title Report Norton Rose Fulbright South Africa Inc 10th floor, Norton Rose House 8 Riebeek Street Cape Town 8001 South Africa
Corporate Adviser Perpetuity Capital Pty Ltd Level 2 175 Macquarie Street Sydney NSW 2000 Australia	Communications and Public Relations Adviser SenateSHJ Citadel Magnus Level 15 61 York Street Sydney NSW 2000 Australia
	JSE Designated Advisor PSG Capital Proprietary Limited (Registration number 2006/015817/07) 1st floor, Ou Kollege Building 35 Kerk Street, Stellenbosch, 7600 (PO Box 7403, Stellenbosch, 7599) and 2nd Floor, Building 3 11 Alice Lane Sandown Sandton, 2196 (PO Box 650957, Benmore, 2010)
Offer Website www.renegen.com.au	ASX Code ASX:RLT



Application Forms



How to complete this General Public Offer Application Form

A

Number of CDIs applied for

Enter the number of CDIs for which you wish to apply. The Application must be for a minimum of 2,500 CDIs (A\$2,000.00).

B

Application Monies

Enter the amount of Application Monies. To calculate the amount, multiply the number of CDIs applied for in Step A by the Issue Price of A\$0.80.

C

Applicant Name(s)

Enter the full name you wish to appear on the statement of holding. This must be either your own name or the name of a company. Up to 3 joint Applicants may register. You should refer to the table below for the correct forms of registrable title. Renergen Limited reserves the right to reject Application Forms using the incorrect naming convention. The Clearing House Electronic Subregister System (**CHESS**) participants should complete their name identically to that presently registered in the CHESS system.

D

Postal Address

Enter your postal address for all correspondence. All communications to you from the Registry will be mailed to the person(s) and address shown on the Application Form. For joint Applicants, only one address can be entered.

E

Contact Details

Enter your contact details. These are not compulsory but will assist us if we need to contact you regarding this Application.

F

CHESS

Renergen Limited participates in CHESS, operated by ASX Settlement Pty Limited, a wholly owned subsidiary of ASX Limited. If you are a CHESS participant (or are sponsored by a CHESS participant) and you wish to hold CDIs issued to you under this Application on the CHESS Subregister, enter your CHESS HIN. Otherwise, leave this section blank and on issue, you will be sponsored by Renergen Limited and allocated a Securityholder Reference Number (**SRN**).

G

Payment

Make your cheque, bank draft or money order payable in Australian dollars to '**Renergen Limited**' and cross it '**Not Negotiable**'. Cash will not be accepted. The total payment amount must agree with the amount shown in Step B. Complete the cheque details in the boxes provided. Cheques will be processed on the day of receipt and as such, sufficient cleared funds must be held in your account as dishonoured cheques may not be represented and may result in your Application being rejected. Paperclip (do not staple) your cheque to the Application Form. Receipts will not be forwarded. Funds cannot be directly debited from your bank account.

Before completing the Application Form you should read the Prospectus to which this Application Form relates. By lodging the Application Form, you agree that this Application for CDIs in Renergen Limited is subject to the terms of the Prospectus and the Constitution of Renergen Limited, and agree to take any number of CDIs that may be issued to the Applicant(s) pursuant to the Prospectus. It is not necessary to sign the Application Form.

Lodgement of Application

Application Forms must be received by Computershare Investor Services Pty Limited (**CIS**) by no later than 5.00pm (AEST) on the Closing Date. You should allow sufficient time for this to occur. Return the Application Form with payment attached to:

Renergen Limited

c/- Computershare Investor Services Pty Limited

GPO Box 52

MELBOURNE VIC 3001 Australia

Neither CIS nor Renergen Limited accepts any responsibility if you lodge the Application Form at any other address or by any other means. If you have any enquiries regarding the Application Form, please contact the Offer Information Line on 1300 140 590 (within Australia) or +61 3 9415 4109 (outside Australia).

Privacy Notice

The personal information you provide on this form is collected by CIS, as registrar for the securities issuers (the **Issuer**), for the purpose of maintaining registers of securityholders, facilitating distribution payments and other corporate actions and communications. In addition, the Issuer may authorise us on their behalf to send you marketing material or include such material in a corporate communication. You may elect not to receive marketing material by contacting CIS using the details provided overleaf or emailing privacy@computershare.com.au. We may be required to collect your personal information under the *Corporations Act 2001* (Cth) and ASX Settlement Operating Rules. We may disclose your personal information to our related bodies corporate and to other individuals or companies who assist us in supplying our services or who perform functions on our behalf, to the Issuer for whom we maintain securities registers or to third parties upon direction by the Issuer where related to the Issuer's administration of your securityholding, or as otherwise required or authorised by law. Some of these recipients may be located outside Australia, including in the following countries: Canada, India, New Zealand, the Philippines, the United Kingdom and the United States of America. For further details, including how to access and correct your personal information, and information on our privacy complaints handling procedure, please contact our Privacy Officer at privacy@computershare.com.au or see our Privacy Policy at at <http://www.computershare.com/au>.

Correct forms of registrable title(s)

Note that ONLY legal entities are allowed to hold CDIs. Application Forms must be in the name(s) of a natural person(s), companies or other legal entities acceptable to the Issuer. At least one full given name and the surname is required for each natural person. Application Forms cannot be completed by persons less than 18 years of age. Examples of the correct form of registrable title are set out below.

Type of Investor	Correct Form of Registration	Incorrect Form of Registration
Individual: use given names in full, not initials	Mr John Alfred Smith	JA Smith
Company: use the company's full title, not abbreviations	ABC Pty Ltd	ABC P/L or ABC Co
Joint Holdings: use full and complete names	Mr Peter Robert Williams & Ms Louise Susan Williams	Peter Robert & Louise S Williams
Trusts: use the trustee(s) personal name(s)	Mrs Susan Jane Smith <Sue Smith Family A/C>	Sue Smith Family Trust
Deceased Estates: use the executor(s) personal name(s)	Ms Jane Mary Smith & Mr Frank William Smith <Est John Smith A/C>	Estate of late John Smith or John Smith Deceased
Minor (a person under the age of 18): use the name of a responsible adult with an appropriate designation	Mr John Alfred Smith <Peter Smith A/C>	Master Peter Smith
Partnerships: use the partners personal names	Mr John Robert Smith & Mr Michael John Smith <John Smith and Son A/C>	John Smith and Son
Long Names	Mr John William Alexander Robertson-Smith	Mr John W A Robertson-Smith
Clubs/Unincorporated Bodies/Business Names: use office bearer(s) personal name(s)	Mr Michael Peter Smith <ABC Tennis Association A/C>	ABC Tennis Association
Superannuation Funds: use the name of the trustee of the fund	Jane Smith Pty Ltd <Super Fund A/C>	Jane Smith Pty Ltd Superannuation Fund