QUARTERLY ACTIVITIES REPORT

For the Quarter ending 31 March 2024

Earths Energy (ASX:EE1) (**Earths Energy**, **EE1** or the **Company**) is pleased to present its Quarterly Activities Report for the March 2024 Quarter.

HIGHLIGHTS

- **EE1 commenced trading on the ASX on 7 February 2024, following strong demand for a $6 million capital raise to advance geothermal projects in South Australia and Queensland[1]**
- **EE1 and Baker Hughes entered a Memorandum of Understanding (MoU) to progress geothermal exploration, appraisal, and development**
    - *Baker Hughes is an energy technology company that provides solutions to energy and industrial customers worldwide.*
    - *Through its 2022 investment in GreenFire Energy, Baker Hughes is developing closed-loop Advanced Geothermal Systems to exploit geothermal resources inaccessible with traditional technologies.*
    - *Joint EE1 / Baker Hughes scoping study activities commenced in Q2, with an initial scoping Study targeted for early Q3.*
- **A major report by the US Department of Energy – "Pathways to Commercial Liftoff, Next-Generation Geothermal"[2] (Report), identified next-generation geothermal technologies as a key contributor to decarbonised power generation.**
    - *The Report highlights the advantages of geothermal, supporting the clean energy transition by providing emission free 24/7 baseload power.*
    - *The DoE forecasts a more than 20-fold increase in geothermal power, from ~4GW installed in the US today to ~90 GW by 2050, due to next generation geothermal technology advances.*
- **Through its MoU with Baker Hughes, EE1 is positioned to benefit from these technological and commercial advancements.**
- **The Company's cash balance at 31 March 2024 was $5.3m.**

[1] ASX announcement 7 February 2024
[2] https://liftoff.energy.gov/wp-content/uploads/2024/03/LIFTOFF_DOE_NextGen_Geothermal_v14.pdf

Geothermal Energy

Geothermal energy is a renewable energy from the natural source of heat contained within the earth. Geothermal has become established as a reliable and environmentally benign source of power. The geothermal energy industry has been active globally for over 100 years and geothermal power plants have been installed in 30 countries[3].

Geothermal energy has seen a strong increase in demand over the past decade as the world moves towards zero carbon emission targets. Compared to other renewable energy solutions, geothermal energy is unique in that it provides a base-load alternative that produces energy 24/7, a major challenge for intermittent renewable energy solutions like solar and wind. Geothermal energy therefore plays an important role in the future energy transition towards zero carbon emissions, given its ability to provide network security and reliability.

As of January 2024, global geothermal power generation capacity stood at 16,335 Mwe, with 208 MWe capacity installed during 2023[4]. Geothermal energy is modular and scalable, allowing decentralised power generation that has many potential applications in Australia.

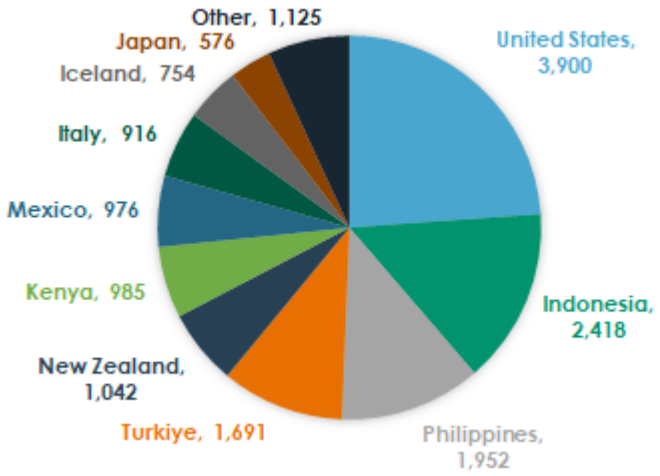

Figure 1 – Global installed geothermal capacity, January 2023

The largest geothermal energy producer, the US, has capacity of 3.9GW, a similar size as the entire WA electricity grid.

Historically, the global geothermal industry focused on "hot rocks", >200°C in tectonically and volcanically active areas, such as the Pacific Ring of Fire.

Technological advancements mean that the geothermal industry is on the cusp of a global renaissance with "geothermal anywhere" becoming the industry's new tagline. Independent research firms, such as Wood Mackenzie[5], have written that the

[3] https://www.thinkgeoenergy.com/geothermal/geothermal-energy-production-utilisation/

[4] https://www.thinkgeoenergy.com/thinkgeoenergys-top-10-geothermal-countries-2023-power-generation-capacity/

[5] https://www.woodmac.com/news/the-edge/future-energy--geothermal-power/

new technologies have the potential to exponentially grow the industry to 1,000 GW by 2050.

While well-developed in other countries, the Australian geothermal industry is in its infancy, due largely to Australia's historic abundance and acceptance of fossil fuels.

EE1 is an early mover in geothermal exploration in Australia and has strategically secured and applied for prospective licences with resource potential near prospective customers.

Advanced Geothermal Systems - potential for "geothermal anywhere"

EE1's core strategy is to assist in unlocking Australia's vast geothermal potential through the application of next-generation geothermal technologies. Next-generation geothermal technologies create their own reservoirs from ubiquitous hot rock, which vastly expands the availability of geothermal resources.

In an Advanced Geothermal System (AGS), 100% of fluid flows in a closed cycle or closed loop, which does not require permeability of hot rocks and has no fluid injection or emissions. The technology has been proven and is expected to operate with rock temperatures of less than 180°C.

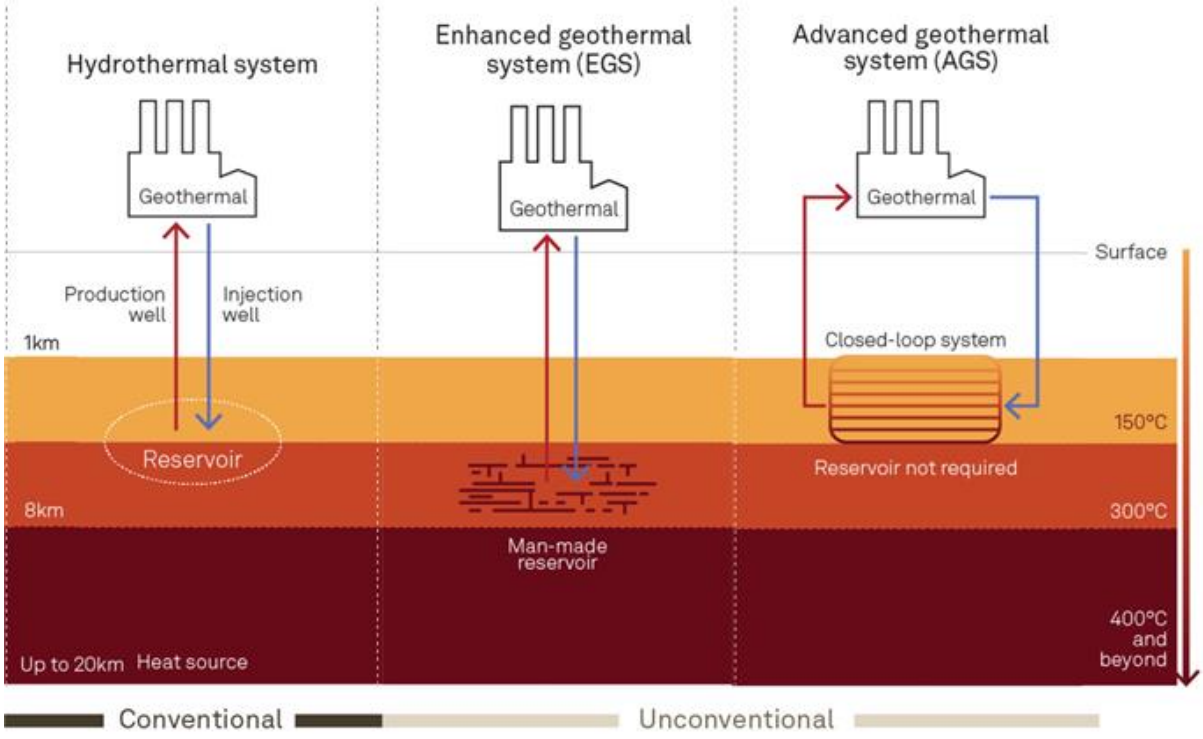

Figure 2 Technological advancements[6]

Given AGS systems are closed loop, there are many advantages, including:

[6] https://www.spglobal.com/commodityinsights/en/market-insights/latest-news/energy-transition/011124-infographic-next-generation-technologies-set-the-scene-for-accelerated-geothermal-growth-energy-transition.

- Improved air and water quality – closed loop geothermal has zero emissions, little or no water consumption and no contact with subsurface water;
- Limited land usage / impact – a very small footprint, minimal visual impact, and no noise pollution;
- High degree of safety – no waste streams, no hazardous chemicals, no risk of fire or explosion; and
- Wildlife protection – not hazardous to birds, animals, or fish.

EE1 and Baker Hughes entered an MoU

EE1 and Baker Hughes entered into a strategic relationship via an MoU to progress geothermal exploration, appraisal, and development.

Built on a century of experience and with over 58,000 employees, Baker Hughes has been involved in the geothermal industry for more than 40 years, adapting oil and gas technology to develop geothermal power.

Baker Hughes's comprehensive technology portfolio drives reliable and predictable performance across the well lifecycle.

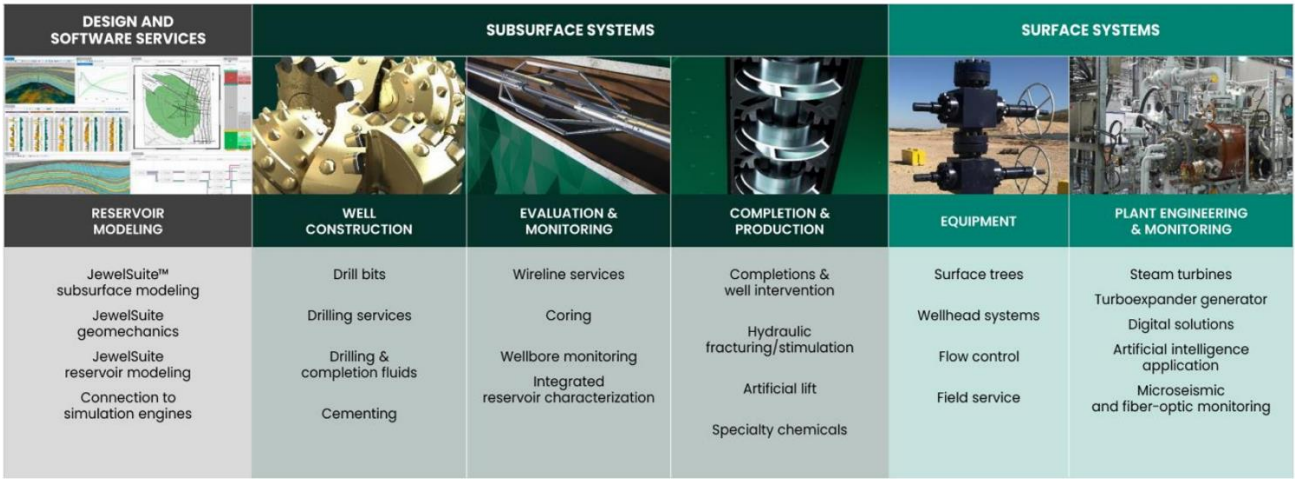

Figure 3 – Baker Hughes technology portfolio[7]

These expert technologies are crucial to developing geothermal energy.

Governance arrangements have been put in place to ensure both EE1 and Baker Hughes commit the time and resources required to progress opportunity assessment. A Joint Steering Committee has been constituted to govern the relationship and drive towards execution phase and binding agreements over the next 2 years.

The parties will review the geothermal field evaluation work performed to date, along with well construction plans to identify potential risks, opportunities and areas for further assessment and improvement.

[7] bakerhughes.com

The Committee will review field development, and well design plans, supply of services and technology for subsurface evaluation, drilling, well completion, steam production, steam gathering and power generation, for both planning and execution phases. Study activities commenced and the Committee has targeted delivery of an initial scoping study for early Q3.

US DoE estimates 20-fold increase in geothermal power

The DoE Report states that "*Geothermal power technology has shown compelling advances that can enable it to become a key contributor to secure, domestic, decarbonized power generation for the US as a source of clean firm power*[8]."

The Report projects 90 GW of power from next generation geothermal projects by 2050 in the "Energy Earthshot" scenario, the lowest case – see Figure 4. This is a more than 20-fold increase from ~4 GW installed in the US today, and a significant contribution to the modelled requirement.

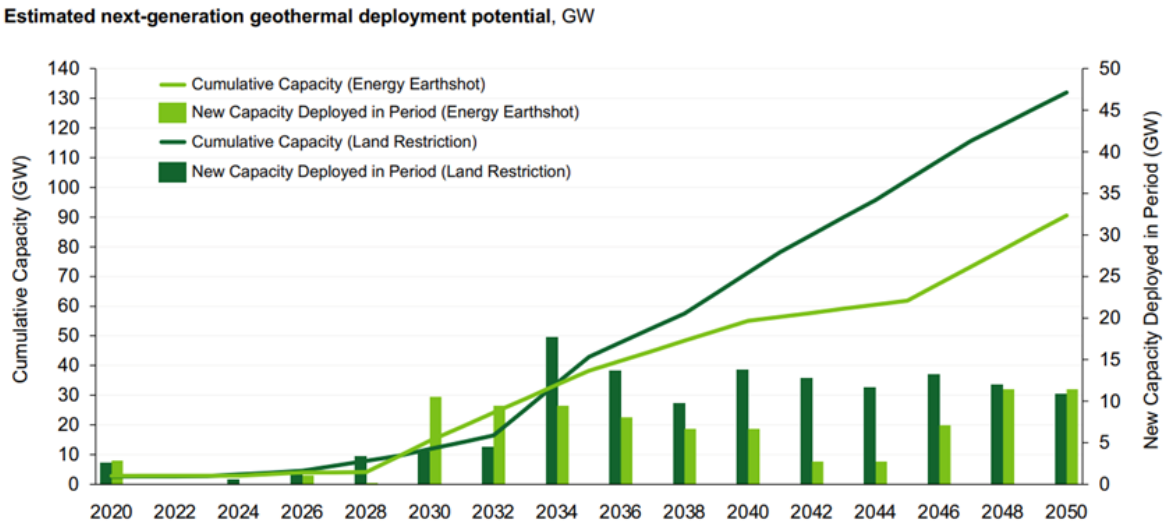

Figure 4 Forecast next generation geothermal deployment

Figure 4 also shows the "Land Restriction" scenario, which models constrained build out of solar and wind and results in >130GW of next generation geothermal by 2050.

Rapid cost reduction for next generation geothermal already in evidence

The Report indicates that advancements at field demonstrations in the last two years have reduced estimated project development costs for enhanced geothermal systems (EGS) by almost 50 percent. Improvements in drilling costs, well stimulation, lower numbers of exploration wells required have all contributed to this reduction.

[8] https://liftoff.energy.gov/wp-content/uploads/2024/03/LIFTOFF_DOE_NextGen_Geothermal_v14.pdf

The DoE projects a further reduction by two thirds from the current base. This would result in an unsubsidised Levelised Cost of Energy (LCOE[9]) of US$60-70/MWh, equivalent to A$90-110/MWh, in line with current National Electricity Market prices[10]. DoE best-estimate projections of LCOE show that next-generation geothermal costs will be highly competitive with other non-emitting sources of energy, with the potential to fall below the cost of other clean firm power sources by 2035 – see Figure 5. For reference, the DoE LCOE projections are broadly consistent with CSIRO's most recent electricity cost generation estimates for Australia.[11]

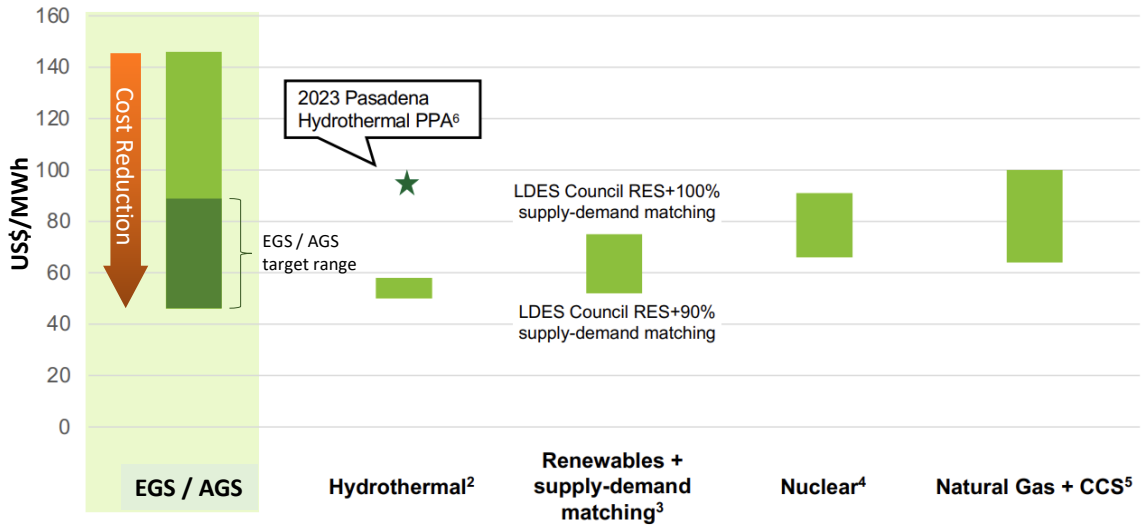

Figure 5 Projected LCOE range (after DoE, 2024)

Investment in next generation geothermal is accelerating

Capitalising on the recent technological improvements and demonstrations, the next-generation geothermal market has shown notable market momentum in the last four years, in terms of both capital raised (USD $670 MM since 2021) and deal count.

[9] The present value of the total cost of building and operating a generating plant over its economic life, converted to equal annual payments, and adjusted for inflation.
[10] https://opennem.org.au/energy/nem
[11] CSIRO (2023) - GenCost 2023-2024 Consultation draft. Available at: https://www.csiro.au/-/media/Energy/GenCost/GenCost2023-24Consultdraft_20231219-FINAL.pdf

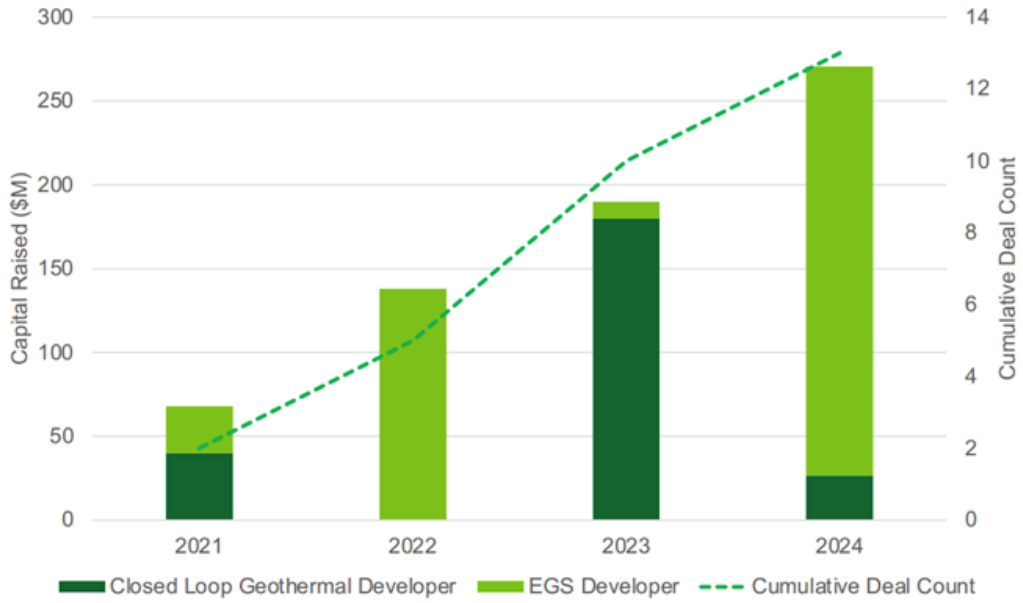

Figure 6 Capital raised and cumulative deal count

Notable investors include energy industry majors and supermajors, mining and steel companies, industry service companies, drilling and drilling materials companies, and power purchasers, as well as globally significant venture capital investors such as Microsoft's Climate Innovation Fund, Canada Growth Fund, Temasek, and Japan Energy Fund.

Next-generation geothermal companies and startups have reached several major milestones since 2021, including demonstration projects such as the Coso closed loop project built by GreenFire Energy[12]. Baker Hughes, EE1's technology partner, is a major investor in GreenFire.

Several geothermal power purchase agreements (PPAs) have recently been concluded with prices ranging from US$70-100/MWh, on average US$20-50/MWh more than North American solar power PPAs[13], demonstrating the benefits of 24/7 base load, flexible power generation that geothermal offers.

EE1 tenure is positioned strategically near power consumers

EE1 has secured a large acreage position close to both energy markets and infrastructure and has several further tenements in Queensland under application.

South Australia: near Mines and Lines

Earth Energy's geothermal assets in South Australia span 12,035 km² in prime locations (See Figure 7). These blocks are strategically situated along major transmission lines

[12] https://www.greenfireenergy.com/research/

[13] https://liftoff.energy.gov/wp-content/uploads/2024/03/LIFTOFF_DOE_NextGen_Geothermal_v14.pdf

and adjacent to large-scale mining operations such as Olympic Dam, Carrapateena and Four Mile / Beverly, all major consumers of energy in South Australia.

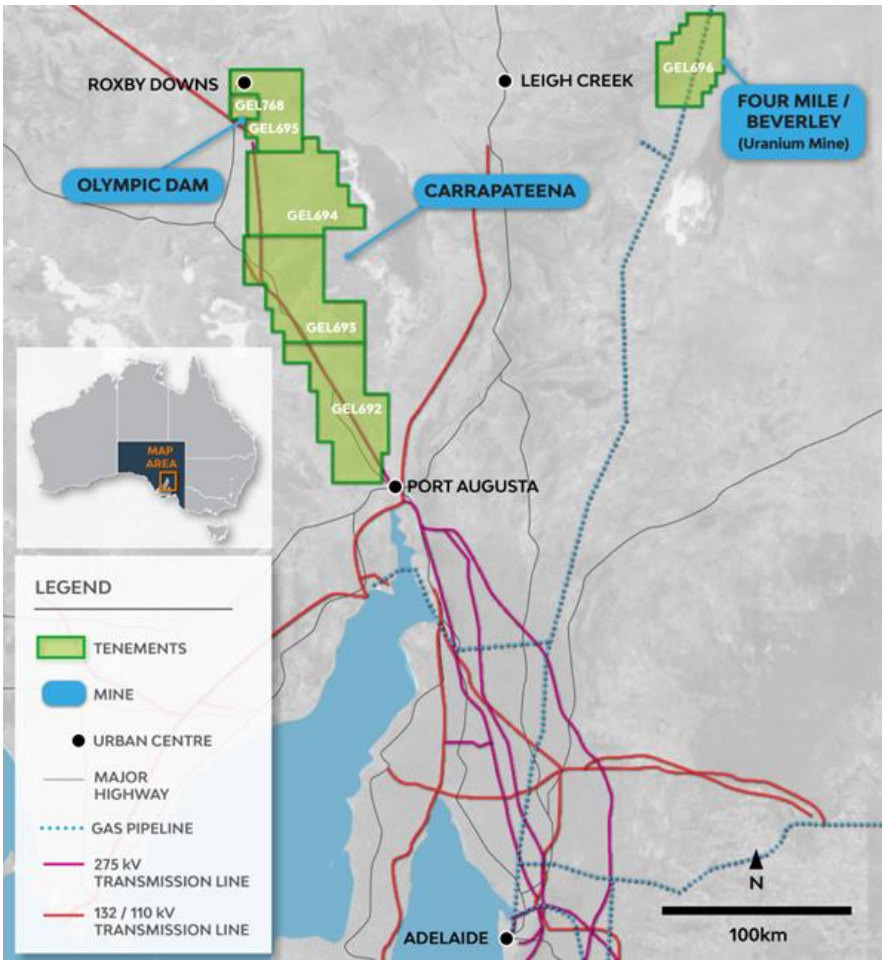

Figure 7 – South Australian geothermal exploration licences (EE1 attributable: 84%)

The Independent Technical Expert's indicative aggregate estimates[14] of Electric Resource Potential[15] for the granted South Australian acreage range from 9,700Mwe to 54,100Mwe[16].

Queensland: meeting East Coast Australia's growing power demand

In Queensland, Earths Energy has one granted geothermal exploration permit, EPG 2026, which is located near Brisbane and substations and regional power networks. Additionally, the Company has three blocks under application that are located near the Gold Coast and major industrial activity in the Bowen and Surat Basin mining and coal seam gas areas (see Figure 8).

[14] Competent Person – these analyses have been performed by Dr. Arnout JW Everts who holds a PhD in Geology from VU University Amsterdam and has 33 years of industry experience.
[15] The estimates of Electric Power-Resource Potential are strictly indicative and should not be considered compliant with UNFC.
[16] Assuming a plant load-factor of 0.9 and a range (P90 to P10) of 1.9 – 7.9 MWe/km^2 (Megawatt electrical per square kilometer) for GEL 696 and a plant load-factor of 0.9 and a range (P90 to P10) of 1.1 – 6.9 MWe/km^2 for GELs 692/693/694/695/768.

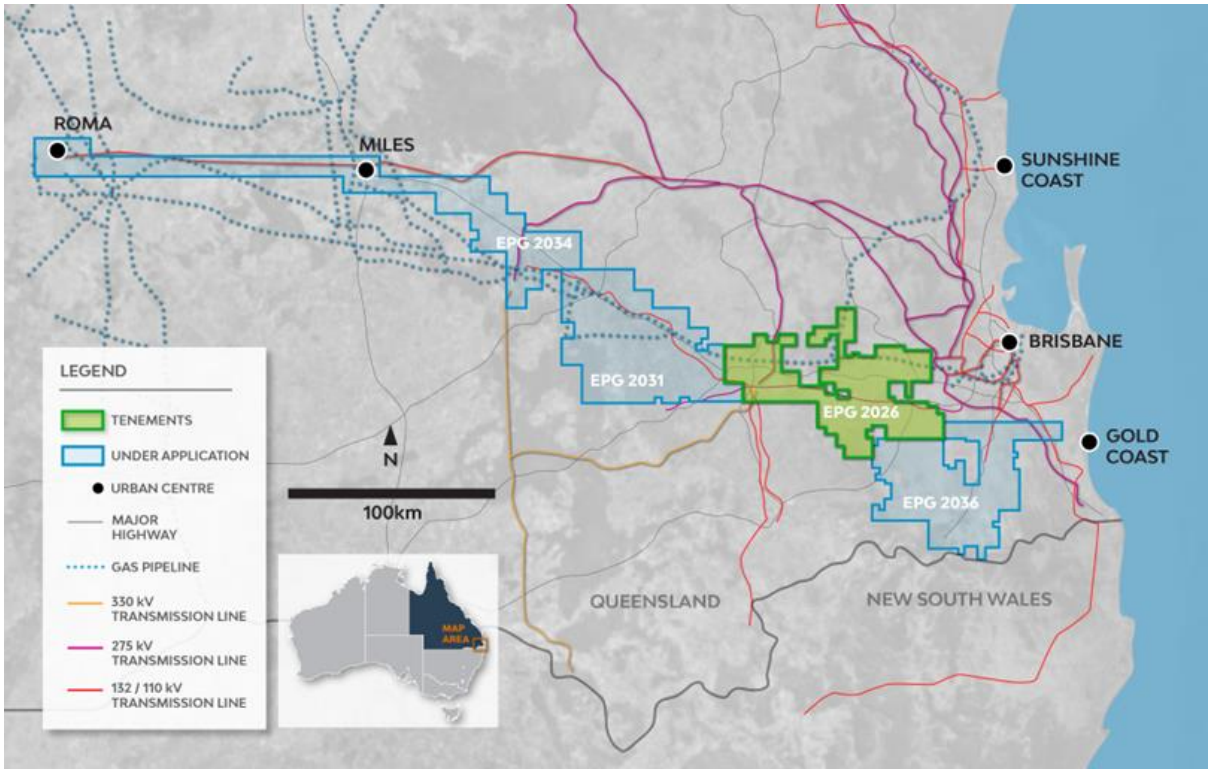

Figure 8 – Queensland geothermal exploration licences and applications

These tenements, particularly EPG2026 and EPG2031, exhibit considerable geothermal potential, with identified 'sweet spots' that have a promising estimated electrical power capacity. The Independent Technical Expert's indicative aggregate estimates[14] of Electric Resource Potential[15] for the granted Queensland permit range from 200 Mwe to 1,100 Mwe[17].

Corporate

Cash balance

The Company's cash balance at 31 March 2024 was $5.3m.

During the quarter the subordinated debt facility between the Company and Davey Management was terminated by mutual agreement.

Use of Funds

For the quarter ended 31 March 2024, the Company provides a comparison of expenditure against the Use of Funds as set out in the Company's Prospectus dated 8 November 2023 pursuant to Listing Rule 4.7C.2.

Evaluation and exploration expenditure during the quarter amounted to $0.04 million. During the quarter, there were no mining production and development activities.

[17] Assuming a plant load-factor of 0.9 and a range (P90 to P10) of 1.1 – 3.7 MWe/km^2 (Megawatt electrical per square kilometer).

Table 1- Use of Funds

Use of Funds	Prospectus	Actual spend
Corporate costs[18]	$1,816,486	$257,306
Joint Venture technical services allocation	$232,138	15,615
Accounting and support services	$158,340	17,959
Geological services	$480,000	41,598
Technical subsurface exploration activities	$283,000	-
HSE Adviser	$320,000	-
Native title and land access	$91,500	-
Consultants – Drilling	$360,000	-
Civil and exploration drilling	$640,000	-
Engineering	$80,000	-
HSEQ compliance requirements	$72,000	-
Title rent and fees	$300,000	-
Transaction costs	$340,000	$130,219
Broker fees	$300,000	$267,800
Working capital[19]	$526,536	-
TOTAL	**$6,000,000**	**$730,497**

Payments to related parties of the entity and their associates

During the Quarter, payments to related parties for directors' fees totalled $84,468.

Mr Grant Davey, who is a Director of the Company, is a director and shareholder of Matador Capital Pty Ltd ("Matador Capital"). The Company makes payments to Matador Capital under Shared Services and Office Use Agreements in which Matador Capital provides office space, office administration services, bookkeeping and accounting services and IT hardware & infrastructure to the Company. The services provided by Matador Capital are recovered from the Company on a cost-plus basis and totalled $70,563.

Tenements held

Table 2 - Geothermal Tenements

Tenement	Status	EE1 Ownership	Area km²	Registered Holder	Location
GELA692	Granted	84%	2,964	Volt Geothermal Pty Ltd	South Australia
GEL 693	Granted	84%	2,968	Volt Geothermal Pty Ltd	South Australia
GEL 694	Granted	84%	2,789	Volt Geothermal Pty Ltd	South Australia
GEL 695	Granted	84%	1,538	Volt Geothermal Pty Ltd	South Australia
GEL 696	Granted	84%	1,776	Volt Geothermal Pty Ltd	South Australia
GELA 768	Application	84%	288	Volt Geothermal Pty Ltd	South Australia
EPG 2026	Granted	84%	3,129	Within Energy Pty Ltd	Queensland
EPG 2031	Application	84%	3,642	Within Energy Pty Ltd	Queensland
EPG 2034	Application	84%	3,669	Within Energy Pty Ltd	Queensland
EPG 2036	Application	84%	2,589	Within Energy Pty Ltd	Queensland

[18] Comprises of general administration expenses, including director fees, audit fees, insurance, legal, ASX fees, investor relations costs, share registry costs, occupancy costs, accounting and book-keeping costs.

[19] General working capital including, but not limited to, expenditure in respect to the Company undertaking due diligence investigations on potential additional complementary project opportunities

Authorised for release by Earths Energy's Board of Directors.

ENDS

To learn more about the Company, please visit www.ee1.com.au, or contact:

Matt Kay
Managing Director
0401 988 824

Aiden Bradley
NWR Communications
0414 348 666

About Earths Energy

Earths Energy holds an 84% interest in Volt Geothermal Pty Ltd ("Volt") and Within Energy Pty Ltd ("Within"), who hold geothermal projects in South Australia and Queensland, respectively (collectively the "Projects"). The Projects comprise prospective geothermal exploration licences, surrounded by key existing infrastructure for electricity generation, including powerlines and sub power stations. The Company plans to focus on systematically exploring early-stage geothermal targets and developing geothermal resources at the Projects. This will involve a fit-for-purpose exploration programme analysing subsurface geology to identify thermal resource potential at different well depths, undertaking preliminary survey and resource assessments based on offset well data, exploration location definition and exploration drilling. This will determine priority targets for exploration drilling for geothermal resources.

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Board & Management

Grant Davey
Executive Director

Matt Kay
Managing Director

Chris Bath
Director and Chief Financial Officer

David Wheeler
Non-Executive Director

Dr Lawrence Meckel
Head of Subsurface

Appendix 5B

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Name of entity

Earths Energy Limited (Formerly Cradle Resources Limited)

ABN	Quarter ended ("current quarter")
60 149 637 016	31 March 2024

Consolidated statement of cash flows		Current quarter $A'000	Year to date (9 months) $A'000
1.	**Cash flows from operating activities**		
1.1	Receipts from customers	-	-
1.2	Payments for		
	(a) exploration & evaluation	-	-
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	(70)	(130)
	(e) administration and corporate costs	(240)	(1,002)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	-	3
1.5	Interest and other costs of finance paid	-	(1)
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	-	-
1.8	Other (provide details if material)	-	-
1.9	**Net cash from / (used in) operating activities**	**(310)**	**(1,130)**

2.	**Cash flows from investing activities**		
2.1	Payments to acquire or for:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	-
	(d) exploration & evaluation	(142)	(142)
	(e) investments	-	-
	(f) other non-current assets	-	-

Consolidated statement of cash flows		Current quarter $A'000	Year to date (9 months) $A'000
2.2	Proceeds from the disposal of:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	-
	(d) investments	-	-
	(e) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	-	-
2.6	**Net cash from / (used in) investing activities**	**(142)**	**(142)**

3.	**Cash flows from financing activities**		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	6,000	6,850
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	-	-
3.4	Transaction costs related to issues of equity securities or convertible debt securities	(274)	(274)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	(5)	(16)
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (receipts from share subscriptions)	(6,000)	-
3.10	**Net cash from / (used in) financing activities**	**(279)**	**6,560**

4.	**Net increase / (decrease) in cash and cash equivalents for the period**		
4.1	Cash and cash equivalents at beginning of period	6,024	5
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(310)	(1,130)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(142)	(142)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	(279)	6,560

Consolidated statement of cash flows		**Current quarter $A'000**	**Year to date (9 months) $A'000**
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	**Cash and cash equivalents at end of period**	**5,293**	**5,293**

5.	**Reconciliation of cash and cash equivalents** at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	**Current quarter $A'000**	**Previous quarter $A'000**
5.1	Bank balances	5,293	6,024
5.2	Call deposits	-	-
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	**Cash and cash equivalents at end of quarter (should equal item 4.6 above)**	**5,293**	**6,024**

6.	**Payments to related parties of the entity and their associates**	**Current quarter $A'000**
6.1	Aggregate amount of payments to related parties and their associates included in item 1	155
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-

Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments.

7.	**Financing facilities** *Note: the term "facility' includes all forms of financing arrangements available to the entity.* *Add notes as necessary for an understanding of the sources of finance available to the entity.*	**Total facility amount at quarter end $A'000**	**Amount drawn at quarter end $A'000**
7.1	Loan facilities	-	-
7.2	Credit standby arrangements	-	-
7.3	Other (please specify)	-	-
7.4	**Total financing facilities**	-	-
7.5	**Unused financing facilities available at quarter end**		-
7.6	Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.		

N/A

8.	Estimated cash available for future operating activities	$A'000
8.1	Net cash from / (used in) operating activities (item 1.9)	(310)
8.2	(Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	(142)
8.3	Total relevant outgoings (item 8.1 + item 8.2)	(452)
8.4	Cash and cash equivalents at quarter end (item 4.6)	5,293
8.5	Unused finance facilities available at quarter end (item 7.5)	-
8.6	Total available funding (item 8.4 + item 8.5)	5,293
8.7	**Estimated quarters of funding available (item 8.6 divided by item 8.3)**	11.7

Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.

8.8 If item 8.7 is less than 2 quarters, please provide answers to the following questions:

8.8.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?

Answer: N/A

8.8.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?

Answer: N/A

8.8.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?

Answer: N/A

Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.

Compliance statement

1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.

2 This statement gives a true and fair view of the matters disclosed.

Date: 30 April 2024

Authorised by: **By the Board**
(Name of body or officer authorising release – see note 4)

Notes

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.

2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 6: Exploration for and Evaluation of Mineral Resources* and *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.

3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.

4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [*name of board committee – eg Audit and Risk Committee*]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".

5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.