ASX Announcement

16 July 2024

Appointment of Global Energy Leader

Earths Energy Limited (**ASX: EE1**) (**Earths Energy** or the **Company**) is pleased to announce the appointment of GLJ Ltd (**GLJ**) as a technical advisor to the Company.

HIGHLIGHTS

- **Appointed GLJ Ltd as technical advisor**
  - A global leader in geothermal project development
  - Made significant contributions to the development of Vulcan Energy's Zero Carbon Lithium™ project, showing their ability to drive innovation and commercial outcomes
  - Has significant expertise in developing Carbon Capture Use and Storage (CCUS) projects
- **Company's South Australian Projects are the most advanced in Australia**[1]
  - Paralana Project drilled to 3,685m and tested at 171°C at Paralana 2
  - Flinders West Project drilled to 1,934m and tested at 85°C at Blanche 1
  - South Australia is the premier jurisdiction for CCUS projects in Australia
- **GLJ to begin a technology and techno-economic assessment of the Company's Projects**
  - Focused on the Company's geothermal project development
  - Will establish the potential for CCUS technology to enhance geothermal project economics
  - Work to begin immediately

CEO Josh Puckridge commented: *"We are thrilled to appoint GLJ, whose expertise in geothermal and CCUS technologies will be invaluable as we advance our geothermal energy projects. Their significant role in Vulcan Energy's Zero Carbon Lithium™ project showcases their ability to drive innovation and sustainability which we believe will be an asset to Earths Energy."*

Greg Owen, GLJ Vice President, New Ventures and Technical Services, commented: *"We are very pleased to be appointed by Earths Energy and bring our extensive experience in geothermal project development and the application of CCUS technologies to their projects. Earths Energy's projects offer significant potential for utilising Advanced Geothermal Systems or Enhanced Geothermal Systems to harness geothermal energy, a potentially key step towards achieving sustainable energy production and reducing carbon emissions in Australia."*

[1] See ASX announcement 10 July 2024

APPOINTMENT OF GLJ

Earths Energy will be using GLJ to conduct a technology review and initial techno-economic assessment of the Company's two South Australian projects:

1. Paralana, and
2. Flinders West.

This review and techno-economic assessment will focus on evaluating both the geothermal and CCUS project potential at Paralana and Flinders West. The Company expects to begin sharing some of these findings and developments from GLJ with the market during Q32024.

As recently announced to the market ("Australia's Most Advanced Geothermal Projects", 10 July 2024), the Company has identified areas at its Flinders West Project with early stage prospectivity for Captured Carbon Storage. The Company will continue to assess its geothermal projects along with developing any CCUS potential within the projects.

With its supportive legislation, South Australia is the most advanced jurisdiction in Australia to have established legislation for the commercial development and operation of CCUS projects under a strategic gas storage licence.

BASELOAD GEOTHERMAL GREEN POWER PRODUCTION

Paralana and Flinders West represent the most advanced geothermal projects in Australia which are more likely to be developed for commercial power production faster than any other Australian project the Company is aware of.

Earths Energy's South Australian Projects:

- ✓ Targeting the development of +100MWe installed capacity projects.
- ✓ Capacity for multiple plants over +12,000 km^2 project areas.
- ✓ Grid Access to the South Australian and the East Coast Power Grid.
- ✓ Drilled and Tested to 3.6km depth.

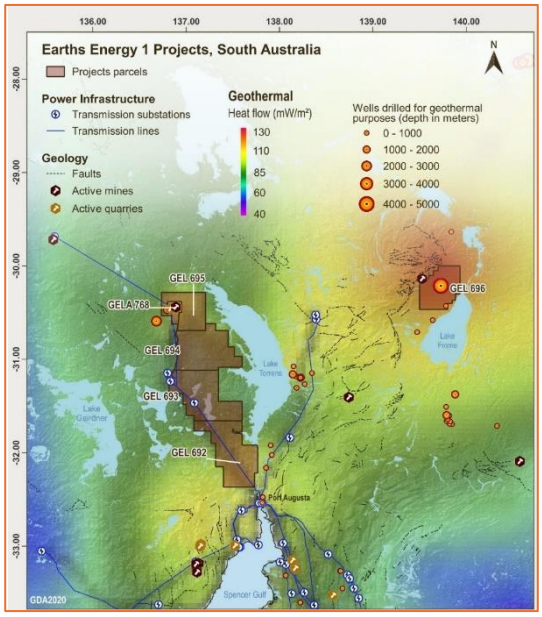

Figure 1: EE1's South Australian Projects

GLJ is a global leader in energy consulting, specialising in geothermal project development and Carbon Capture Utilisation and Storage. With over 50 years of experience, GLJ has an extensive track record in market assessments, geothermal exploration, geological studies, risk analysis, reservoir modelling, field development planning, and facility design review.

GLJ's role in Vulcan Energy's Zero Carbon Lithium™ project further demonstrates their ability to drive innovation and commercial outcomes in the renewable energy sector which aligns with the Company's objectives. This strategic appointment will provide the Company with important expertise to advance its projects.

See www.gljpc.com for more information on GLJ.

SYNERGIES BETWEEN GEOTHERMAL AND CARBON CAPTURE USE AND STORAGE

Various synergies exist in developing a CCUS project alongside a geothermal project, these include:

Exploration Synergies: the exploration techniques for both CCUS and geothermal are highly similar and thus the added exploration costs associated with CCUS is minimal.

Integrated Project Play: the potential for a multi revenue stream integrated project exists in the form of a combined geothermal and CCUS project that facilitates both power production and captured carbon storage. This could see the natural revenues from the sale of baseload green power onto a power grid be coupled with any of the revenue streams detailed for CCUS on pages 4-5 below.

Supercritical CO_2 Geothermal Plant: the potential to develop a supercritical CO_2 geothermal power plant is appealing as it maintains the potential to drill much shallower injection and production well holes (as CO_2 flashes to supercritical gas at much lower temperatures than H_2O does). These shallower depths greatly decrease CAPEX as drilling can be completed much shallower than in conventional geothermal designs or from enhanced and advanced geothermal designs.

CARBON CAPTURE USE AND STORAGE EXPLAINED

CCUS encompasses a variety of technologies designed to capture carbon dioxide (CO_2) emissions from industrial processes or power generation facilities.

These technologies either repurpose the CO_2 to prevent its release into the atmosphere or securely store it underground in geological formations. While CO_2 is increasingly utilised in the food industry and other non-energy sectors, its primary application to date has been in enhanced oil recovery (EOR). EOR uses CO_2 to enhance oil extraction from reservoirs by improving pressure and flow characteristics, a practice that has economically and is therefore popular.

Despite the majority of CO_2 being sequestered underground in this process, EOR has faced criticism due to the potential for increased oil production and associated emissions. Conversely, permanent geological sequestration of CO_2 in deep saline aquifers or depleted gas reservoirs is recognised for its ability to reduce the carbon footprint of energy production from fossil fuels such as coal, oil, and natural gas.

CCUS represents a crucial pathway in mitigating climate change by significantly reducing CO_2 emissions across various sectors via its storage and management.

Annual investment in CCUS projects is estimated to reach US$175 billion by 2035[2].

COMMERICIALISING CARBON CAPTURE USE AND STORAGE PROJECTS

When commercializing a CCUS project, a company may leverage both regulatory and private commercial arrangements to generate revenue from captured CO_2, these may include:

Waste Management Fees: the Company will be able to charge other commercial entities like large onshore oil and gas producers to store and maintain waste CO_2 from EOR operations. These fees may represent both upfront and recurring revenue to the Company.

Taxation Based Incentives: the project may benefit from financial incentives through tax optimisation by complying with carbon tax regulations imposed on emitters and from early stage innovation incentives.

Cap and trade: participating in market-based systems that set CO_2 emission limits, we can purchase or trade credits to manage our emissions effectively.

[2] McKinsey & Company Global Energy Perspective 2023: CCUS Outlook (January 24, 2024)

Subsidies and grants: reducing capital investment costs and operating expenses, either on a per-tonne basis or as a lump sum, to partially or fully compensate for the installation and operation of carbon capture systems.

The Company will be assessing both its Paralana Project and its Flinders West Project in South Australia for the potential to access these revenue streams above, should a CCUS project be established.

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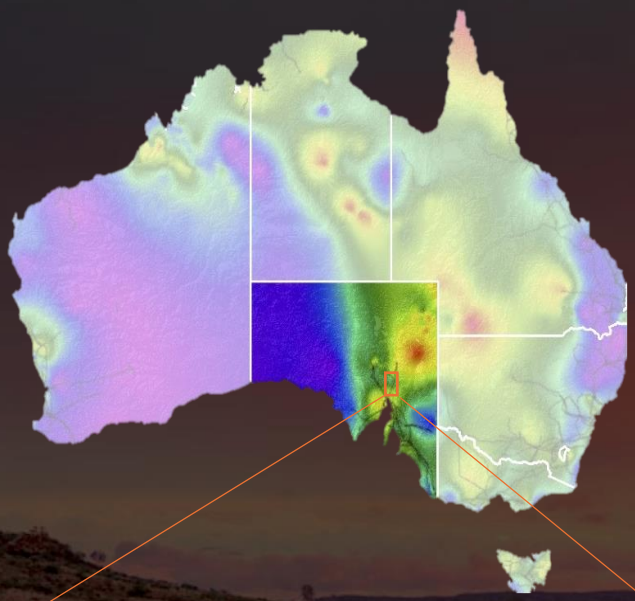
About Earths Energy (ASX: EE1)

- **Australia's Most Advanced Geothermal Explorer and Developer**
- **Committed to the production of Green Baseload Power in Australia**

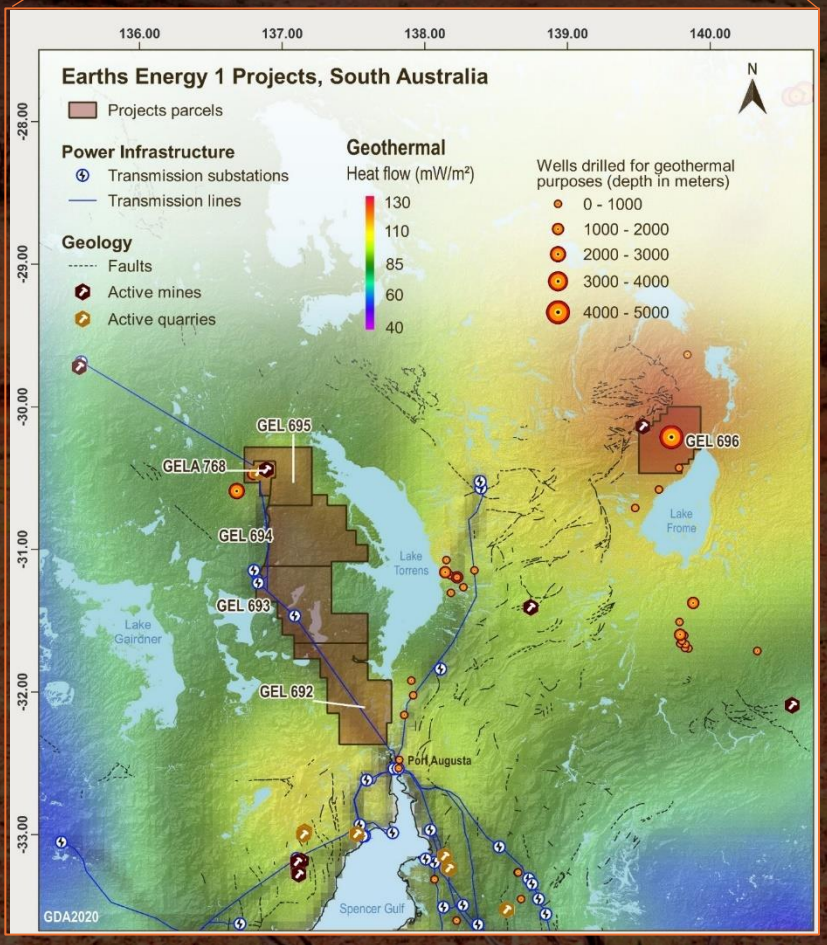


EE1 holds 84% of the Paralana and Flinders West geothermal projects located in South Australia, which stand as Australia's most advanced geothermal projects and have outstanding development potential.

EE1 also holds an 84% interest in geothermal projects located in Queensland.

EE1's landholdings comprise prospective geothermal exploration licences, surrounded by key existing infrastructure including powerlines and power substations.

The Company is focused on assessing the feasibility of commercial scale geothermal power generation capacity at multiple sites, including the suitability of its projects for carbon capture.



About Geothermal:

Geothermal Projects provide Green Baseload Power to electricity grids around the world. The USA produces 17.2 TWh of geothermal power per annum, equivalent to Western Australia's entire annual electricity demand. The USA, Indonesia and Philippines combined produce enough geothermal power to meet over 17% of Australia's annual electricity demand.

For more information see:

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