

## **Agreement between Vulcan Energy and Enel Green Power and Zero Carbon Lithium™ Project Update**

Vulcan Energy Resources Limited (Vulcan; ASX: VUL, FSE: VUL, the Company) is pleased to announce it has entered into a binding collaboration agreement with Enel Green Power (EGP), the largest geothermal energy producer in Italy, to develop its Italian project and to explore future opportunities for cooperation.

### **Highlights**

- **Binding agreement signed with Enel Green Power to explore and develop geothermal lithium in Italy.**
- **Preliminary EIA approval, growing community support across the region and Demo Plant progress update at the Zero Carbon Lithium™ Project in Germany.**

### **Summary – Enel Green Power Agreement**

- Vulcan and EGP have signed a binding collaboration agreement to explore and develop Vulcan's Cesano license in Italy through a joint scoping study. Both companies also agreed to evaluate the opportunity to cooperate on other geothermal lithium projects in Italy.
- EGP is part of the Enel Group dedicated to the development of energy generation from renewable sources. EGP is a global leader in geothermal energy, with plants in Italy, Chile and the United States.
- Vulcan and EGP will assess the potential of Vulcan's Cesano license in a step-wise approach, starting with a scoping study. EGP has already previously explored and drilled a number of wells in the Cesano area and gathered relevant data direct from local reservoirs.
  - Vulcan and EGP will bring together their respective lithium extraction and geothermal expertise to explore the development of geothermal lithium projects in the area and potentially in other locations in Italy.
  - Vulcan's Cesano Permit extends over an area of 11.5 km<sup>2</sup>, 20 km NNW of Rome. The area hosts wells drilled by Enel Group which yielded hot geothermal brine with high lithium values (See ASX announcement on 24 January 2022 for more information).
- The Cesano license area will become co-owned 50:50 by Vulcan and EGP.

Vulcan's Managing Director Dr Francis Wedin commented, "Vulcan is aiming to increase the future supply of our sustainable lithium product in response to significant customer demand, as we leverage our extensive experience in lithium extraction from heated brines to have a materially decarbonizing effect on global electric vehicle supply chains. By growing and diversifying our project development portfolio, we ultimately aim to develop a globally significant Zero Carbon Lithium™ business focused on Europe, for Europe.

"We welcome the opportunity to collaborate with Enel Green Power on the development of geothermal lithium. As the largest producer of geothermal renewable energy in Italy, Enel Green Power is a leader in its field and has strong, positive relationships in the region. We look forward to working with Enel Green Power to make a lasting and sustainable contribution to the local community.

### **Contact**

**Figure 1: Location of A) Vulcan's Zero Carbon Lithium™ Project in the Upper Rhine Valley Brine Field, Germany, in relation to B) the Cesano license in Italy.**

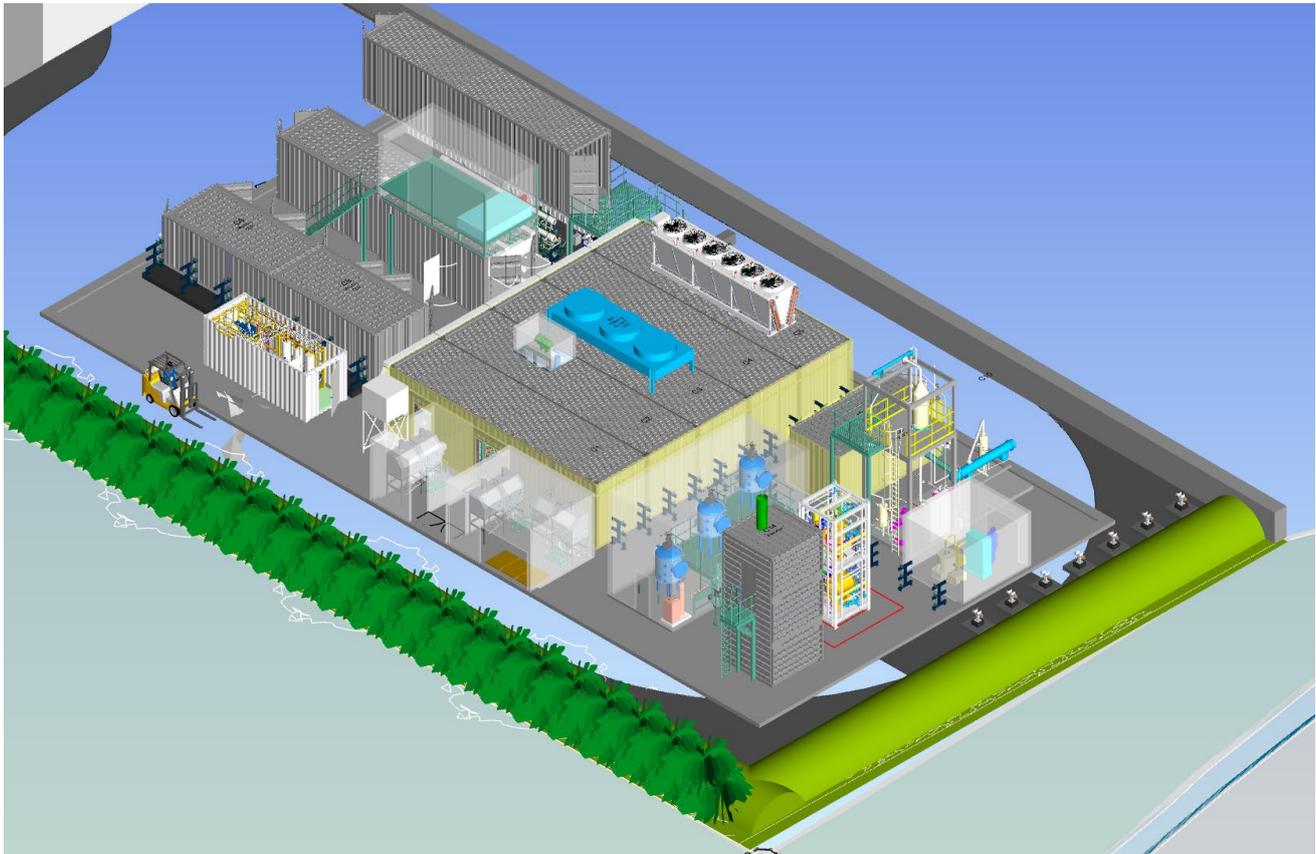


### Summary - Zero Carbon Lithium™ Project update, Germany

- Separately, Vulcan has received a positive result for its preliminary EIA application (UVP-V) in its Taro license, to drill six wells for geothermal energy and lithium.
- The State Office for Geology and Mining in Rhineland-Palatinate determined that the environmental impact of the planned wells, taking into account their size, extent and intensity of action, cannot be assessed as significant. There is therefore no requirement to carry out a full environmental impact assessment for the wells, which is a positive step forward for the Zero Carbon Lithium™ Project development.
- Community support continues to grow for geothermal production in the region. The Upper Rhine Council, a cross-border association of the regions of Baden-Württemberg, Rhineland-Palatinate, Alsace and the cantons of Northwestern Switzerland, have resolved in favour of supporting deep geothermal projects in Ortenau.
- This follows the news from 17 June 2022 that the City Council of Landau, which covers part of Vulcan's geothermal production license at Insheim, as well as the Landau Süd production license where Vulcan has a brine offtake agreement with the operator, has voted to support geothermal energy production in the area. The Council has taken a positive stance towards the extraction of lithium from geothermal brine, upon consideration of climate protection goals as well as the interests of the regional – urban development in the area.
- Works at Vulcan's Sorption Demo Plant are continuing, led by the Vulcan Energy Engineering (VEE) team. Initial commissioning of the Sorption Demo Plant (previously referred to as the DLE-Demo plant) is planned to commence in late Q4, which is behind schedule due to previously flagged, unprecedented global supply chain issues with sourcing certain pieces of equipment. The commissioning of "LiLy", the Company's lithium hydroxide production Demo Plant, is still on track to start commissioning in late Q1 2023.



Ongoing works at Vulcan's Sorption Demo Plant



Schematic of Vulcan's Sorption Demo Plant

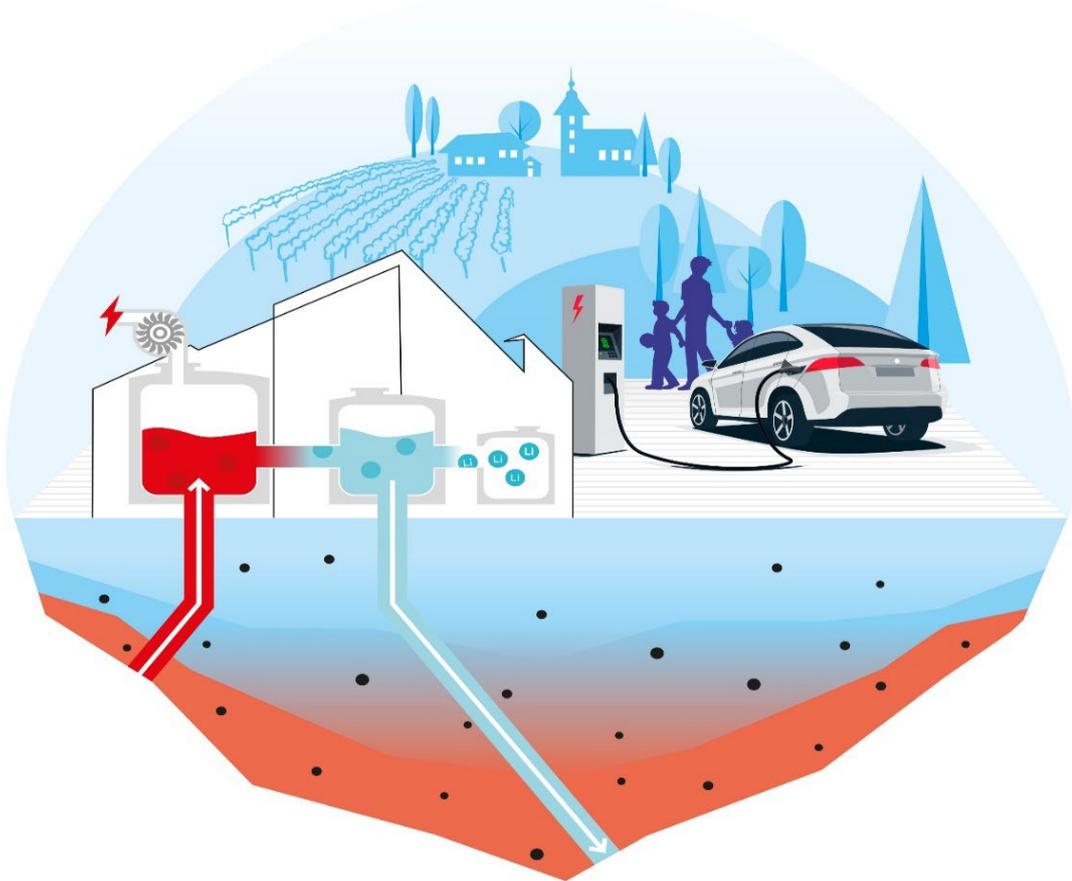
- The multi-disciplinary DFS for Phase 1 renewable energy and lithium production is progressing well, with an updated PFS for a larger Phase 2 targeted for completion at the same time. The Vulcan multi-disciplinary team is aiming to increase production in both phases relative to previous PFS assumptions, in light of increased customer demand for both renewable energy and lithium hydroxide. Field development planning is currently focusing on optimising models for dual lithium and geothermal renewable heat production from the same reservoir. The Company flags that whilst its teams are working hard to achieve the H2 2022 completion target, local approval processes mean there is an increasing likelihood of the completion date moving into Q1 2023.
- The Vulcan Energy Sub-Surface (VESS) team is continuing to gather data, including seismic and drilling data, to incorporate in a planned resource update in H2 2022. Vulcan's current resource covers 3 of its 11 licenses, and it is aiming to incorporate more of its license areas into the updated resource for the Upper Rhine Valley Brine Field (URVBF) that forms the basis of its Zero Carbon Lithium™ Project.



## VULCAN ENERGY ZERO CARBON LITHIUM™

### About Vulcan

Vulcan is aiming to become the world's first lithium producer with net zero greenhouse gas emissions. Its Zero Carbon Lithium™ Project intends to produce a battery-quality lithium hydroxide chemical product from its combined geothermal energy and lithium resource, which is Europe's largest lithium resource, in Germany. Vulcan's unique, Zero Carbon Lithium™ Project aims to produce both renewable geothermal energy, and lithium hydroxide, from the same deep brine source. In doing so, Vulcan intends to address lithium's EU market requirements by reducing the high carbon and water footprint of production, and total reliance on imports. Vulcan aims to supply the lithium-ion battery and electric vehicle market in Europe, which is the fastest growing in the world. The Vulcan Zero Carbon Lithium™ Project has a resource which could satisfy Europe's needs for the electric vehicle transition, from a source with net zero greenhouse gas emissions, for many years to come.





### Corporate Directory

Managing Director	Dr Francis Wedin
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Non-Executive Director	Ranya Alkadamani
Non-Executive Director	Annie Liu
Non-Executive Director	Dr Heidi Grön
Non-Executive Director	Josephine Bush
Non-Executive Director	Dr Günter Hilken
Non-Executive Director	Mark Skelton
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### For and on behalf of the Board

Daniel Tydde | Company Secretary

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### Reporting calendar

June Quarterly Activities and Cashflow Reports	28 July 2022
FY22 Results	22 September 2022
September Quarterly Activities and Cashflow Reports	27 October 2022

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## Competent Person Statement:

The information in this report that relates to Mineral Resources and Ore Reserves (respectively) of the Company's Zero Carbon Lithium™ is extracted from the ASX announcements made by Vulcan on 15 December 2020 ("Updated Ortenau Indicated and Inferred Resource") and 15 January 2021 ("Positive Pre-Feasibility Study"), which are available on [www.v-er.eu](http://www.v-er.eu). The information in this report that relates to Insheim's Mineral Resources is extracted from the ASX announcement made by Vulcan on 20 January 2020 ("Maiden Indicated Resource Insheim Vulcan Zero Carbon Lithium"), which is available on [www.v-er.eu](http://www.v-er.eu). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.