

## **Vulcan commences lithium hydroxide production towards product qualification**

***Significant milestone for Europe's critical raw materials independence and green mobility transition***

Vulcan Energy Resources Limited (Vulcan, ASX: VUL, FSE: VUL, the Company) is pleased to announce the start of lithium hydroxide production at the Company's downstream Central Lithium Electrolysis Optimisation Plant (CLEOP) in Industrial Park Höchst, Frankfurt, Germany.

### **Key highlights**

- The first lithium hydroxide has been produced by Vulcan in Germany from the processing of high purity lithium chloride concentrate extracted from brines at its Adsorption-type Direct Lithium Extraction (A-DLE) optimisation plant
- This represents the first sustainable lithium hydroxide fully domestically produced in Europe, including upstream raw material, in one integrated supply chain
- The downstream optimisation plant will supply lithium hydroxide for the battery-grade qualification process with Vulcan's automotive and battery offtake partners including Stellantis, Renault, LG and Umicore, while the Company's Phase One commercial plant is being constructed
- Phase One of the project, designated Lionheart, will supply approximately 24,000 tonnes per annum of lithium hydroxide, enough for approximately 500,000 electric vehicles (EVs) per annum
- The Phase One combination of upstream A-DLE production from deep, naturally heated brine reservoirs, combined with downstream conversion to lithium hydroxide using electricity only, represents one of the lowest cost lithium chemical supply chains in the world<sup>1</sup>
- In addition, the Phase One location in Central Europe is in close proximity to end-user automotive and battery customers, further enhancing the cost competitiveness and low carbon footprint of Vulcan's operations
- The Company's Phase One upstream and downstream plants will exclude fossil fuels in both the extraction and processing of lithium, meaning the process has the lowest carbon footprint of any lithium production globally. The operations have been assigned Dark Green by S&P Global Ratings, the highest ever received by a Metals and Mining company globally. S&P Global Ratings' methodology includes six shades, with a Dark Green rating awarded to activities that correspond to the long-term vision of the low-carbon climate resilient future
- The Phase One process also involves the co-production of valuable renewable heat and power. The excess heat and power will be used within local communities, furthering the decarbonisation of industries within proximity
- The Company's project financing process continues, led by BNP Paribas, with a debt structuring group including the European Investment Bank, Export Credit Agencies from Australia, France, Italy, and Canada, as well as major European banks ING, Unicredit, ABN-AMRO, and Natixis.

<sup>1</sup> As per the Project Bridging Study Results released on 16 November 2023.

Managing Director and CEO, Cris Moreno, commented: "First lithium hydroxide production is an important milestone for Vulcan as we demonstrate Europe's first fully domestically produced lithium from the integration of Vulcan's upstream production and downstream conversion optimisation plants, and is pivotal for the battery supply chain resilience of both Germany and Europe.

"Importantly, this combination of process allows a very low cost, highly sustainable, premium product, helping to enable European battery and EV production competitiveness.

"We look forward to keeping our shareholders updated as we move towards completion of financing and start of commercial construction."

<ENDS>

#### For and on behalf of the Board

Daniel Tydde | Company Secretary

#### Change of address

The Company also advises that it has changed its registered address to Unit 1, Level 11, 1 Spring Street, Perth WA 6000. Its other contact details remain the same.

#### Further information

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Please contact Vulcan's Legal Counsel Germany, Dr Meinhard Grodde, for matters relating to the Frankfurt Stock Exchange listing on [mgrodde@v-er.eu](mailto:mgrodde@v-er.eu).

#### About Vulcan Energy

Vulcan Energy (ASX: VUL, FSE: VUL) is building the world's first carbon neutral, integrated lithium and renewable energy business to decarbonise battery production. Vulcan's Lionheart Project, located in the Upper Rhine Valley Brine Field bordering Germany and France, is the largest lithium and geothermal resource in Europe and a tier-one lithium project globally. Harnessing natural heat to produce lithium from sub-surface brines and to power conversion to battery grade material and using its in-house industry-leading technology VULSORB®, Vulcan is building a local, low-cost source of sustainable lithium for European electric vehicle batteries. For more information, please go to <https://v-er.eu/>

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Vulcan has carried out a definitive feasibility study ("DFS") and bridging engineering study ("Bridging Study") for its Phase One Project, the results of which were announced to the ASX in the announcements Phase 1 DFS Results dated 13 February 2023 (DFS Announcement) and Bridging Study Results on 16 November 2023 (Bridging Study Announcement). This announcement may include certain information relating to the DFS and the Bridging Study. The DFS and Bridging Study are based on the material assumptions and parameters outlined in their respective announcements. While Vulcan considers all of the material assumptions to be based on reasonable grounds, there is no certainty that they will prove to be correct or that the range of outcomes indicated by the Bridging Study or DFS will be achieved. This presentation may also include certain information relating to Phase Two of its Project, Vulcan has not yet carried out a definitive feasibility study for Phase Two of its Project.