



## Zero Carbon Lithium™ Project Update

Vulcan Energy Resources Limited (Vulcan; ASX: VUL, FSE: VUL, the Company) is pleased to provide a progress update for its Zero Carbon Lithium™ Project in the Upper Rhine Valley Germany.

### Highlights:

**Local Council votes to support geothermal energy production; and Exploration Licence Area increased by 141km<sup>2</sup> to a total of 1,163km<sup>2</sup>.**

### Summary

- 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;
  - take 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.
- The Insheim region forms a core part of Vulcan's Phase 1 development plans, currently being developed as part of its Phase 1 Definitive Feasibility Study (DFS). This aims to grow out geothermal renewable energy production in the Upper Rhine Valley Brine Field (URVBF) starting from around its core producing plant at Insheim, and to develop lithium extraction and processing from the same production, with zero fossil fuels and net zero carbon footprint.
- In its decision, the Council noted that:

*"It is an undisputed fact that the (local) expansion of renewable energies is of particular importance for solving the challenges ... of climate change and maintaining globally interconnected supply chains is for the international economy ... Geothermal energy can make a significant contribution here, as it is available independently of the sun and wind, i.e. it is base-load capable ... The lithium content in geothermally extracted thermal water in the Upper Rhine Graben offers a great opportunity to make an important contribution to combating the climate crisis, and thus to meet the climate emergency proclaimed in Landau."*
- The positive City Council vote towards geothermal energy and lithium extraction is an important development milestone and first step of the community to enable geothermal-lithium development and marks a significant point in the progress of Vulcan's Zero Carbon Lithium™ business in Europe. The City Council will follow the geothermal and lithium development closely and will actively cooperate to align the development with the environmental goals and concerns of the community of Landau.
- In addition, Vulcan has acquired new exploration licenses, increasing Vulcan's area in the URVBF by 141km<sup>2</sup> to a total of 1,163km<sup>2</sup>.
- The new exploration licenses, designated Flaggenturm (geothermal) and Fuchsmantel (lithium) complement Vulcan's pipeline of future growth opportunities for what is already the largest JORC compliant lithium resource in Europe.

Vulcan's Manager Director Dr Francis Wedin commented: *"We welcome the City of Landau's positive decision as an important step to support renewable, geothermal energy and lithium extraction. The Council has recognised that, in addition to being a source of renewable baseload heat, deep geothermal energy can*

### Contact

also be used to extract lithium for electric vehicle battery production with a zero-carbon, zero fossil fuel footprint of production. This marks an important step forward along the journey of the development of our dual geothermal energy and Zero Carbon Lithium™ business, which is widely recognised as vital not just to energy and critical raw materials supply security in Europe, but also to meeting Germany's climate goals. In addition, we note that we have further expanded our license footprint in the Upper Rhine Valley Brine Field, which adds to our growing pipeline of projects expanding out from our producing core of the field. In the coming weeks, we hope to provide further updates on our DFS, Pilot and Demo Plant, URBVF resource modelling, and closer strategic integration within the battery and electric vehicle supply chain."



Figure 1: Upper Rhine Valley Brine Field (URBVF), showing license areas and key operations areas making up Vulcan's integrated renewable geothermal energy and Zero Carbon Lithium™ business

Table 1: License areas making up Vulcan's integrated renewable geothermal energy and Zero Carbon Lithium™ business

Name	State	Area (ha)	Area (km <sup>2</sup> )	Type	Expiry date (MM/YYYY)	Ownership at End of Quarter	Change in Ownership
<b>Upper Rhine Valley Geothermal-Lithium Brine Field</b>							
Insheim	Rheinland-Pfalz	1,900	19	Production license	11/2037	100%	N/A
Ortenau	Baden-Württemberg	37,360	373.6	Exploration License	06/2023	100%	N/A
Mannheim	Baden-Württemberg	14,427	144.27	Exploration License	06/2024	100%	N/A
Lampertheim	Hessen	10,803	108.03	Exploration License	07/2024	100%	N/A
Taro/Lisbeth	Baden-Württemberg	3,268	32.68	Exploration License	08/2022	100%	N/A
Ludwig	Rheinland-Pfalz	9,641	96.41	Exploration License	12/2024	100%	N/A
Therese	Rheinland-Pfalz	8,109	81.09	Exploration License	12/2024	100%	N/A
Kerner	Rheinland-Pfalz	7,226	72.26	Exploration License	12/2024	100%	N/A
Löwenherz	Rheinland-Pfalz	7,543	75.43	Exploration License	12/2024	100%	N/A
Landau Süd	Rheinland-Pfalz	1,949	19.49	Production license	N/A	Brine offtake agreement with owner/operator	
Flaggenturm/Fuchsmantel	Rheinland-Pfalz	14,114	141.14	Exploration License	12/2022	100%	100%
<b>Cesano Field</b>							
Cesano	Italy	1,150	11.5	Research Permit	01/2025	100%	N/A



## 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.



For personal use only



### Corporate Directory

Managing Director	Dr Francis Wedin
Chairman	Gavin Rezos
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
Executive Director, Germany	Dr Horst Kreuter
Company Secretary	Daniel Tydde

### For and on behalf of the Board

Daniel Tydde | Company Secretary

### Media and Investor Relations contact

Germany:

Beate Holzwarth, Chief Communications Officer | [bholzwarth@v-er.eu](mailto:bholzwarth@v-er.eu) | + 49 (0) 171 440 7844

Australia:

Jessica Bukowski, PR & IR Manager | [jbukowski@v-er.eu](mailto:jbukowski@v-er.eu) | +61 (0) 420 528 355

### 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



## Disclaimer

Some of the statements appearing in this announcement may be in the nature of forward-looking statements. You should be aware that such statements are only predictions and are subject to inherent risks and uncertainties. Those risks and uncertainties include factors and risks specific to the industries in which Vulcan operates and proposes to operate as well as general economic conditions, prevailing exchange rates and interest rates and conditions in the financial markets, among other things. Actual events or results may differ materially from the events or results expressed or implied in any forward-looking statement. No forward-looking statement is a guarantee or representation as to future performance or any other future matters, which will be influenced by a number of factors and subject to various uncertainties and contingencies, many of which will be outside Vulcan's control.

Vulcan does not undertake any obligation to update publicly or release any revisions to these forward-looking statements to reflect events or circumstances after today's date or to reflect the occurrence of unanticipated events. No representation or warranty, express or implied, is made as to the fairness, accuracy, completeness or correctness of the information, opinions or conclusions contained in this announcement. To the maximum extent permitted by law, none of Vulcan, its directors, employees, advisors or agents, nor any other person, accepts any liability for any loss arising from the use of the information contained in this announcement. You are cautioned not to place undue reliance on any forward-looking statement. The forward-looking statements in this announcement reflect views held only as at the date of this announcement.

This announcement is not an offer, invitation or recommendation to subscribe for, or purchase securities by Vulcan. Nor does this announcement constitute investment or financial product advice (nor tax, accounting or legal advice) and is not intended to be used for the basis of making an investment decision. Investors should obtain their own advice before making any investment decision.

### 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.