Vulcan Energy Resources Ltd.: Quarterly Activities Report for the period ending 30 Sept. 2023

27.10.2023 | DGAP

During the Quarter, Vulcan Energy Resources Ltd. (Vulcan, ASX: VUL, FSE: VUL, the Company) has made significant progress toward execution of Phase One of Vulcan's Zero Carbon Lithium™ Project, and on completion of the project milestones necessary for the commencement of financing of Phase One. Projectlevel debt and equity financing for Phase One is on track to commence in November.

Mr. Cris Moreno, MD-CEO commented: "During the Quarter, the Vulcan team have worked tirelessly on all fronts to complete the remaining activities of the Bridging Phase. This has included advancements on land acquisition and permitting, as well as substantial progress on commissioning Europe's first Lithium Extraction Optimisation Plant, which will produce the first tonnes of carbon neutral lithium. In the upcoming Quarter, we will introduce brine into the plant for the lithium extraction process to begin, as well as completing construction of our Central Lithium Electrolysis Optimisation Plant ready for lithium hydroxide production early in the new year. We will also complete our Bridging Phase Study and have progressed key EPC and EPCM contract negotiations, all of which will be a major step forward in the upcoming weeks and position us strategically to start our project-level Phase One financing, in November."

Highlights

- Vulcan's lithium resource, the largest in Europe, increased in size, within its Measured and Indicated Phase One area resource.
- Commissioning commenced at the Lithium Extraction Optimisation Plant (LEOP) in Germany, signifying the upcoming start of production of Europe's first tonnes of fully domestically produced lithium chemicals, and the world's first carbon neutral lithium chemicals.
- Building permit received and preparation works started at the Central Lithium Electrolysis Optimisation Plant (CLEOP) at the Höchst Industrial Park in Frankfurt.
- Further land packages were secured for core Phase One production areas, with final key land package for the Phase One Lithium Extraction Plant (LEP) currently under negotiation, expected to conclude during Q4.
- Award of geothermal and lithium brine exploration licence "Luftbrücke" for expansion into the region of Frankfurt am Main, an area with potential industrial customers like the Höchst Industrial Park and Frankfurt Airport.
- Hatch and Vulcan progressed the Phase One Bridging Study, now in its final stages, toward completion in early November. Securing of substantial in-principle financing support from government-backed Export Credit Agencies (ECAs) in Europe, Canada and Australia.[1]
- Positive local development and permitting progress towards delivery of Vulcan's Phase One Zero Carbon Lithium™ Project.
- Cris Moreno commenced as Vulcan's Managing Director and CEO of Vulcan Energy Resources, drawing on his extensive major capital projects experience in the oil and gas, battery, and lithium industries to deliver Vulcan's Phase One Zero Carbon Lithium™ Project.

Phase One: Zero Carbon Lithium™ and Renewable Energy Project

Figure 1 Phase One Zero Carbon Lithium™ Project Overview

Production

Geothermal operations:

- Operations continued at Vulcan's Natürlich Insheim geothermal renewable energy wells and plant, with production of 2,579 MWh of gross baseload, renewable power, at an average selling price of â‚¬0,252/kWh.
- In the third quarter, interest in the pilot plant and Geothermal plant itself in Insheim remained high. In both primary and secondary stakeholder management, Vulcan had strategic visits from politicians, business, science, and NGOs. At the beginning of July, Vulcan had a visit from representatives of the Social Democratic Party district association from Ortenau and representatives of all political parties from Landau. This was especially important as it was the political communication sharing for Phase One. Vulcan also had representatives from the University of Karlsruhe, the University of Aachen and members of important climate and environmental nongovernmental organisations such as Parents4future.

Lithium Extraction and Optimisation Plant (LEOP)

- During the Quarter, commissioning commenced at Vulcan's Lithium Extraction Optimisation Plant (LEOP).
- LEOP's purpose is to extract, purify, and produce lithium chloride concentrate from brine in the Upper Rhine Valley in Germany. This milestone represents a major step forward by Vulcan and its Zero Carbon Lithium™ Project and signifies to the market, the first tonnes of carbon neutral lithium are soon to be produced in Germany for Europe: enabling domestic European supply chain independence for lithium as a critical raw material and enabling a more sustainable EV battery production industry in Europe.
- LEOP remains on track for brine to be introduced into the plant in November to enable the lithium extraction process to begin.
- To extract lithium from brine, Vulcan is using Adsorption-type DLE ("A-DLE"), which is commercially proven and accounts for 10% of global lithium production today (figure 2).
- Vulcan will use its proprietary sorbent VULSORB® as part of the lithium extraction process. During the piloting phases, VULSORB® demonstrated higher performance and lower water consumption for lithium extraction compared with commercially available sorbents tested by the Company.
- Once the lithium chloride is produced, it will be transported to Vulcan's downstream Central Lithium Electrolyser Optimisation Plant (CLEOP) in Frankfurt-Höchst where the lithium chloride will be converted into lithium hydroxide, which will be tested by Vulcan's lithium offtake partners, Stellantis, Volkswagen, Renault, Umicore and LG Energy Solution.

Figure 2 Commercialisation of DLE technology now and into the future.

Central Lithium Electrolysis Optimisation Plant (CLEOP)

- During the Quarter, the building permit was received for the Central Lithium Electrolysis Optimisation Plant (CLEOP) at the Höchst Industrial Park in Frankfurt which is an important milestone to enable the construction phase to begin.
- The CLEOP will focus on optimising operating conditions and training the production team, whilst the commercial Phase One Central Lithium Plant (CLP) is being constructed in the same chemical park.
- Site preparation works are in progress and start of commissioning is targeted for early part of 2024.
- On 20 September Vulcan's MD and CEO Cris Moreno and Infraserv CEO Dr. Joachim Kreysing officially "broke ground" at Vulcan's CLEOP site. Preparation works will now begin.
- Pre-assembled packaged units are currently being completed and tested ready to be shipped for onsite integration and connection.

Resource: Upgrade of Zero Cabon Lithium™ Project Mineral Resources

- During the Quarter, Vulcan announced a Mineral Resources update for its Zero Carbon Lithium™ Project in the Upper Rhine Valley Brine Field (URVBF) (figure 10), Germany. This resource size increase is an important part of the Phase One Bridging Study completion, toward enabling the production of carbon neutral lithium for the EV transition in Europe.
- Already the largest lithium Resource in Europe[2], Vulcan's URVBF lithium Resource has increased to 27.7 million tonnes of contained Lithium Carbonate Equivalent (Mt LCE) @ 175 mg/L Li, from 26.6Mt LCE @ 174 mg/L Li, to reflect a larger resource in the Phase One Lionheart area.
- Vulcan's URVBF area now comprises 11.2 Mt LCE @ 179 mg/L Li of Measured and Indicated Resource, of which 4.16 Mt LCE @ 181mg/l Li is in the Phase One Lionheart area, and 2.11 Mt LCE is now in the Measured category.

Updated Phase One Field Development Plan

- During the Quarter, the Phase One Field Development Plan (FDP) was revised, looking to reduce uncertainty further and drive more flexibility into the sub surface development of Vulcan's Phase One Zero Carbon Lithium™ Project.
- New well data was utilised from the production well workover in Insheim from Q1 2023, as well as new 3D seismic data for better modelling of the reservoir.
- The Phase One FDP now includes increased focus around the core, existing production/re-injection wells in the Insheim-Landau-Rift area (designated "Lionheart") and deferring of higher uncertainty development areas from Phase One plans.
- The results of these revisions provide greater flexibility to cater for different risk and opportunities in the upcoming Bridging Study release.
- Vulcan's new well site location "Schleidberg" in the Insheim licence within the Phase One upstream area has continued preparatory works as well as putting extensive focus on community stakeholder engagement.

Positive decision by Landau City Council

- During the Quarter, the Landau City Council formally approved a decision to enter contractual negotiations with Vulcan to acquire an area of land for the construction of its integrated Geothermal renewable energy and Lithium Extraction Plant (G-LEP).
- The G-LEP construction is planned as part of Phase One of Vulcan's Zero Carbon Lithium™ Project in the URVBF. Vulcan has already secured a site at the Höchst Industrial Park for this, as well as the land for the main brine production sites.
- The G-LEP site is within the planned Landau industrial park "Am Messegelände Südost". Vulcan plans to produce carbon neutral lithium and supply geothermal renewable heat to the city, as part of its Phase One development.
- In addition, in the same Phase One project area, the State Mining Directorate has approved the first Main Operating Plan for Vulcan's newly planned wells in its Insheim license, where Vulcan is already operating commercial geothermal wells and plant. Vulcan plans to increase brine production by adding several production and injection wells. Pipelines will flow the lithium-rich brine, as well as water heated by the brine, to the planned facilities in the Landau industrial park. The hot industrial water is used to provide carbon neutral heat and to produce green energy. In the Lithium Extraction Plant (LEP), the lithium will be produced from the brine before it is returned to the sub-surface.
- The decisions from the Landau City Council and from the State Mining Authority are an important step forward in successfully executing Phase One.

Phase One Bridging Study Close to Completion

- Vulcan, together with Hatch, are in the final stages of finalising its Bridging Study for Phase One.
- Several key value improvements not included in the DFS from February have been identified, including driving further economies of scale through reduction of the planned two Lithium Extraction Plants (LEPs) and two geothermal power plants, to one central LEP and geothermal power plant with 24 ktpa lithium hydroxide equivalent capacity (figure 3).
- The aim of the Bridging Study will be to produce a higher definition of engineering, at approximately a Class 2 estimate, sufficient to secure an EPCM contractor for Phase One. Once the Bridging Study is completed, Vulcan will formally commence its debt and equity financing process for Phase One.

Figure 3 Simplification and de-risking of Phase One project structure

Commercial

- During the Quarter, Vulcan has been preparing to launch its Phase One financing, which is targeted to commence in November, following completion of the Bridging Study, completion of the Environmental and Social Impact Assessment (ESIA) and securing the final critical land package.
- Debt financing will be led by BNP Paribas, after the successful market sounding process conducted earlier in the year, which resulted in significant in-principal support from European Export Credit Agencies (ECAs) and Export Finance Australia.
- Equity financing will be targeted at the project level, following interest from multiple strategic corporates from the energy, chemicals, and automotive sectors.
- Public funding is also in the process of being applied for, to assist with the overall funding requirement with initial submission being made in November 2023.

Future development and project pipeline

Vulcan granted new licence for expansion into Frankfurt.

- During the Quarter, Vulcan was granted a new license, designated Luftbrücke. The Luftbrücke licence is in the Frankfurt region, around a number of industrial areas including the Höchst Industrial Park, one of Europe's largest chemical and pharmaceutical sites, and Frankfurt Airport, Germany's busiest passenger airport. These are heavy energy consumers who require large quantities of renewable energy, particularly heating solutions.
- The Luftbrücke Licence covers 207 km^2 at the northernmost extent of Vulcan's Zero Carbon Lithium™ Project area, which in the process has grown by 13% to over 1,790km^2, in the Upper Rhine Valley Brine Field (URVBF) across Germany and France.
- The City of Frankfurt has a high heat demand in the range of 6 to 12 TWh/a. It is also very carbon intensive, with almost 80% fossil energy sources, mainly gas and coal.
- The City of Frankfurt is targeting carbon neutrality by 2035. In November 2022 the German Federal Government announced a strategy towards 100 new geothermal projects built by 2030, with affordable, baseload renewable heat which the Frankfurt region aims to benefit from in order to meet its carbon neutral goals.
- Given Frankfurt's high heat demand, there is a significant commercial and decarbonisation opportunity for Vulcan via geothermal renewable energy development in Luftbrücke.
- The license is proximal to Vulcan's CLP development, at the Höchst Chemical Park, providing further opportunities for cheaper energy and decarbonisation of Vulcan's downstream operations.
- For dual business operations, Vulcan is assessing whether the high lithium concentrations in the Buntsandstein brine reservoir extend into the "Rotliegend" brine reservoir to the north under

Luftbrücke. Vulcan has invested in a joint research well in the region together with the City of Frankfurt, the Hessian Ministry of Economics, the LandesEnergieAgentur Hessen GmbH (LEA), the state geological survey, the BäderBetriebe Frankfurt GmbH, Mainova AG, the Leibniz Institute of Applied Geophysics (LIAG) and GLU Freiberg GmbH to test the lithium concentrations. The well has been drilled, and brine sampling and analysis work is under way. Brine sampling results are expected Q4, 2023.

Additional ASX Disclosure Information

ASX Listing Rule 5.3.1: Exploration and Evaluation expenditure during the Quarter was â‚¬3.8 million.

Expenditure related to 3D seismic data acquisition and interpretation costs as well as preparation for upcoming drilling. Interpretation costs include capitalised costs from Vulcan Energy Subsurface (VES) and Vulcan Energie Ressourcen GmbH staff costs where time was allocated to Vulcan licence areas.

ASX Listing Rule 5.3.2: Development expenditure during the Quarter was â¬23.3 million. Expenditure related to construction of the Lithium Extraction Optimisation Plant (â¬5.0 million) and Central Lithium Electrolysis Optimisation Plant (â¬1.5 million), refurbishment costs for Vulcan's two electric drill rigs (â¬6.4 million), bridging study work undertaken by Hatch for Phase One (â¬3.5 million), and land acquired relating to well site locations for Phase One (â¬2.0 million). Rig V20 is now fully refurbished and drill ready.

ASX Listing Rule 5.3.3: During the Quarter, the geothermal and lithium brine exploration licence "Luftbrücke" was granted; no licences were relinquished.

ASX Listing Rule 5.3.5: Payments to related parties of the Company and their associates during the Quarter per Section 6.1 of the Appendix 5B total â¬230,000. This is comprised of an allocation of the Managing Director remuneration of â¬17,000, Executive Chairman remuneration of â¬90,000 and Non-Executive Director fees of â¬123,000. Payments to related parties of the Company and their associates during the Quarter per Section 6.2 of the Appendix 5B total â¬67,000. This amount is an allocation of the Managing Director's remuneration for work done on exploration activities associated with the Vulcan Zero Carbon Lithium™ Project. Please see the Remuneration Report in the 2022 Annual Report for further details on Directors' Remuneration.

Vulcan's Zero Carbon Lithium™ Project

Name	State	Resources applied for	Area (km²)	EXPIRY	Ownership at 30 September 2023	Change
Ried	Hessen	Geothermal, brine & lithium	289.92	7.2025	100 % VER GmbH	
Luftbrücke	Hessen	Geothermal, brine & lithium	207.25	9.2026	100 % VER GmbH	
Rift-Nord (of Rift)	RLP	Geothermal & lithium	61.83	6.2027	50 % VER GmbH, 50 % GET (of 149.74km2)	
Waldnerturm	BW	Geothermal, brine & lithium	20.43	12.2024	100 % VER GmbH	
Lampertheim II	Hessen	Geothermal, brine & lithium	1.99	7.2024	100 % VER GmbH	
Ortenau II	BW	Geothermal, brine & lithium	374.10	12.2025	100 % VER GmbH	
Mannheim	BW	Geothermal, brine & lithium	144.49	6.2024	100 % VER Pty Ltd	
Taro	RLP	Geothermal	32.68	8.2025	100% GGH (part of VER Group)	
Lisbeth	RLP	Lithium		9.2024	100 % VER GmbH	
Ludwig	RLP	Geothermal & lithium	96.34	12.2024	100 % VER GmbH	
Therese	RLP	Geothermal & lithium	81.12	12.2024	100 % VER GmbH	
Lampertheim	Hessen	Geothermal, brine & lithium	108.03	7.2024	100 % VER GmbH	
Kerner	RLP	Geothermal & lithium	72.26	12.2024	100 % VER GmbH	
Löwenherz	RLP	Geothermal & lithium	75.43	12.2024	100 % VER GmbH	
Flaggenturm	RLP	Geothermal	141.14	12.2024	100 % VER GmbH (before FINAP)	
Fuchsmantel	RLP	Lithium		7.2025	100 % VER GmbH (before FINAP)	
Landau-Süd	RLP	Geothermal	19.41	5.2034	JV and brine offtake agreement Geox	
Ilka	RLP	Lithium		11.2025	JV and brine offtake agreement Geox	
Insheim	RLP	Geothermal	19.00	11.2037	Natürlich Insheim GmbH	
LiThermEx	RLP	Lithium		3.2025	Natürlich Insheim GmbH	

Cesano	Italy	Geothermal brine & lithium	11.46	1.2025	100 % VER Ltd.

Defining 'zero carbon'

Given Vulcan's trademarked logo includes the wording 'Zero Carbon Lithium' it is important the Company clarifies the usage of the term. Vulcan defines 'Zero Carbon' as "net zero carbon equivalent emissions", the legal definition of which states that net zero emissions refers to achieving a balance between the amount of greenhouse gas equivalent emissions produced and the amount removed or reduced[3] . This is specifically related to the activities undertaken to extract and process the final lithium hydroxide monohydrate product from its combined lithium and geothermal energy brine resource located in the Upper Rhine Valley. Unlike existing lithium operations, Vulcan aims to not burn fossil fuels in the lithium production and processing exercise. Instead, it will use its renewable energy source to drive the lithium production process, whilst also selling its own geothermal heat and power to the grid, displacing fossil fuel generated energy. The greenhouse gas (GHG) emissions avoided as a result of the displaced fossil fuel-generated energy allows Vulcan to define the project as net zero, or "Zero Carbon" per the Project's trademarked nomenclature, the 'Zero Carbon Lithium™ Project'. Vulcan commissioned Minviro Ltd, an independent consultancy, to undertake an ISO-aligned Life Cycle Assessment (LCA) of the integrated geothermal renewable energy, lithium production and processing impacts to prove the validity of the carbon neutral nature of the Zero Carbon Lithium™ Project. Minviro's LCA assessments are a cradle-to-gate study and include the extraction of the raw lithium product, the geothermal plant, the brine handling, the purification, electrolysis and crystallisation and the transport of the product from well sites through to the final processing plant. Minviro's first ISO aligned LCA was conducted in 2021, one of the first such studies conducted on the lithium hydroxide supply chain globally, with the latest LCA update undertaken in 2023[4]. In addition, Vulcan engages Climate Active to verify the GHG emissions of Vulcan's Australian organisation annually, which began in calendar year 2020. The latest carbon neutral certification covers the corporate team's day-today emissions from 2022 across Scopes 1, 2 and 3, as defined by the GHG Protocol. Because Climate Active is an Australian based carbon neutral certification in partnership with the Australian Government and does not cover other jurisdictions, Vulcan certifies its German subsidiaries against European carbon neutral certifications. For baseline calendar year 2021, Vulcan certified against South Pole's carbon neutral organisation label. For 2022, Vulcan used Climate Impact Partner's carbon neutral label, which covered business as usual emissions, in line with the Australian Climate Active certification, for Vulcan Energie Ressourcen GmbH, its engineering subsidiaries Vulcan Energy Engineering GmbH, Vulcan Energy Subsurface Solutions GmbH, the geothermal renewable energy operator Natürlich Insheim, and Vercana, Vulcan's electric geothermal drilling subsidiary. Emissions associated with scale up and construction of the Zero Carbon Lithium™ Project are not included in the carbon neutral certifications because they are not part of the day-to-day operations. Instead, these emissions will be disclosed to the market on an annual basis and will be included in future LCA calculations. As part of the carbon neutral certifications, and to bring the minimal GHG emissions balance associated with the Australian and German operations to net zero, Vulcan purchased good quality carbon credits through reputable suppliers, covered under the VERRA Verified Carbon Standard. Mitigation measures as part of the carbon neutral certificates include implementing energy efficiency measures within the offices and purchasing renewable energy certificates (RECs) to increase the mix of renewable energy in the electricity grid. Details of the Company's estimated future carbon emissions associated with the life cycle of the planned Zero Carbon Lithium™ Project were disclosed to the market in 2021 (Minviro LCA announcement 4 August 2021)[5] , a breakdown of the GHG emissions categories associated with Vulcan's operations and how they were calculated as well as information about the carbon credits purchased for 2021 were reported in the FY22 Sustainability Report available via the website (https://v-er. eu/). The GHG emissions associated with Vulcan's operations for 2022 will be reported in full in the 2023 Sustainability Report. Updated Minviro LCA data was announced as part of Vulcan's Phase One Definitive Feasibility Study (DFS) on 13 February 2023 and will continue to be reviewed at key Project milestones such as completion of the Bridging Study, and the start of commercial production. Vulcan expects to maintain its carbon neutral status for this period.

About Vulcan

Founded in 2018, Vulcan's unique Zero Carbon Lithium™ Project aims to decarbonise lithium production, through developing the world's first net carbon neutral lithium business, with the co-production of renewable geothermal energy on a mass scale. By adapting existing technologies to efficiently extract lithium from geothermal brine, Vulcan aims to deliver a local source of sustainable lithium for Europe, built around a

net zero carbon strategy with exclusion of fossil fuels. Already an operational renewable energy producer, Vulcan will also provide renewable electricity and heat to local communities. Vulcan's combined geothermal energy and lithium resource is the largest in Europe[6], with license areas focused on the Upper Rhine Valley, Germany. Strategically placed in the heart of the European electric vehicle market to decarbonise the supply chain, Vulcan is rapidly advancing the Zero Carbon Lithium™ Project to target timely market entry, with the ability to expand to meet the unprecedented demand that is building in the European markets. Guided by our Values of Climate Champion, Determined and Inspiring, and united by a passion for the environment and leveraging scientific solutions, Vulcan has a unique, world-leading scientific and commercial team in the fields of lithium chemicals and geothermal renewable energy. Vulcan is committed to partnering with organisations that share its decarbonisation ambitions and has binding lithium offtake agreements with some of the largest cathode, battery, and automakers in the world. As a motivated disruptor, Vulcan aims to leverage its multidisciplinary expert team, leading geothermal technology and position in the European EV supply chain to be a global leader in producing zero fossil fuel, net carbon neutral lithium while being nature positive. Vulcan aims to be the largest, most preferred, strategic supplier of lithium chemicals and renewable power and heating from Europe, for Europe; to empower a net zero carbon future.

Corporate Directory

Executive Chair Dr. Francis Wedin

Managing Director and CEO Cris Moreno

Deputy Chair 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

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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.

Reporting calendar

29 January 2024	December Quarterly
28 March 2024	Annual Report
27 April 2024	March Quarterly
12 September 2024	Half Year Report

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 forwardlooking 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.

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Vulcan has carried out a definitive feasibility study for Phase One of its Zero Carbon Lithium™ Project ('Project'), the results of which were announced to the ASX in the announcement "Zero Carbon Lithium Project Phase 1 DFS Results" dated 13 February 2023 ('DFS'), ('DFS Announcement'). This announcement may include certain information relating to the DFS. The DFS is based on the material assumptions outlined in the DFS Announcement (see "Competent Person Statement" below). 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 of that the range of outcomes indicated by the DFS will be achieved. Vulcan also

released an announcement entitled "Upgrade of Zero Carbon Lithium™ Project Resources" on 29 September 2023 ("Bridging Study Update") which uses the results of the DFS as a basis to update its Mineral Resources, estimated in accordance with the 2012 Edition of the Australian Code for the Reporting of Exploration Results, Mineral Resources, and Ore Reserves (JORC Code). This announcement may also include certain information relating to Phase 2 of its Project, Vulcan has not yet carried out a definitive feasibility study for Phase Two of its Project.

Competent Person Statement:

The information in this announcement that relates to Mineral Resources and Ore Reserves, and any Exploration Results and Production Targets, of Vulcan's Zero Carbon Lithium™ Project is extracted from the DFS Announcement and the Bridging Study Update, both of which are available to view on Vulcan's website at www.v-er.eu. Vulcan confirms that in respect of estimates of Mineral Resources and Ore Reserves, and any Exploration Results and Production Targets, included in this announcement:

- it is not aware of any new information or data that materially affects the information included in the original market announcement, and that all material assumptions and technical parameters underpinning the estimates in the original market announcement continue to apply and have not materially changed;
- the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement; and
- all material assumptions underpinning any production targets (and any forecast financial information derived from such production targets) included in this announcement continue to apply and have not materially changed.

[1] See the Company's announcement "$200 million Letter of Support received from Export Finance Aust." (sic) as released on 26 October 2023.

[2] According to public, JORC-compliant data. See Upgrade of Zero Carbon Lithium™ Project Resources, 29 September 2023

[3] Definition taken from The Institute for Government UK website.

[4] Please refer to page 45 of Vulcan's 31 Dec Annual Report available via the Company website https://v-er.eu

[5] https://v-er.eu/wp-content/uploads/2022/10/LCA.pdf

[6] According to public, JORC-compliant data. See Upgrade of Zero Carbon Lithium™ Project Resources, 29 September 2023