



VULCAN ENERGY
ZERO CARBON LITHIUM™

Delivering Europe's Green Energy and Mobility Transition

Corporate Presentation
April 2024





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Technical information. Vulcan has carried out a definitive feasibility study and bridging 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') and the Bridging Study Announcement on 16 November 2023 ("Bridging Study"). This presentation 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 will be achieved. This presentation 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.

Funding Strategy. To achieve the range of outcomes indicated in the Bridging Study, additional funding will be required. Investors should note that there is no certainty that Vulcan will be able to raise the amount of funding when needed. It is also possible that such funding may only be available on terms that may be dilutive to or otherwise affect the value of Vulcan's existing shares. It is also possible that Vulcan could pursue other financing strategies such as a partial sale or joint venture of the Project. If it does, this could materially reduce Vulcan's proportionate ownership of the Project.

Competent Person Statement. Please see the Competent Person Statement slide in the Appendices.

Note(s): ¹ This slide contains a summary of the applicable disclaimers, the full disclaimer in relation to this Presentation is contained in Appendix 1.

PURPOSE

WE WILL EMPOWER
A CARBON
NEUTRAL FUTURE

ONEVULCAN VALUES

CLIMATE CHAMPION

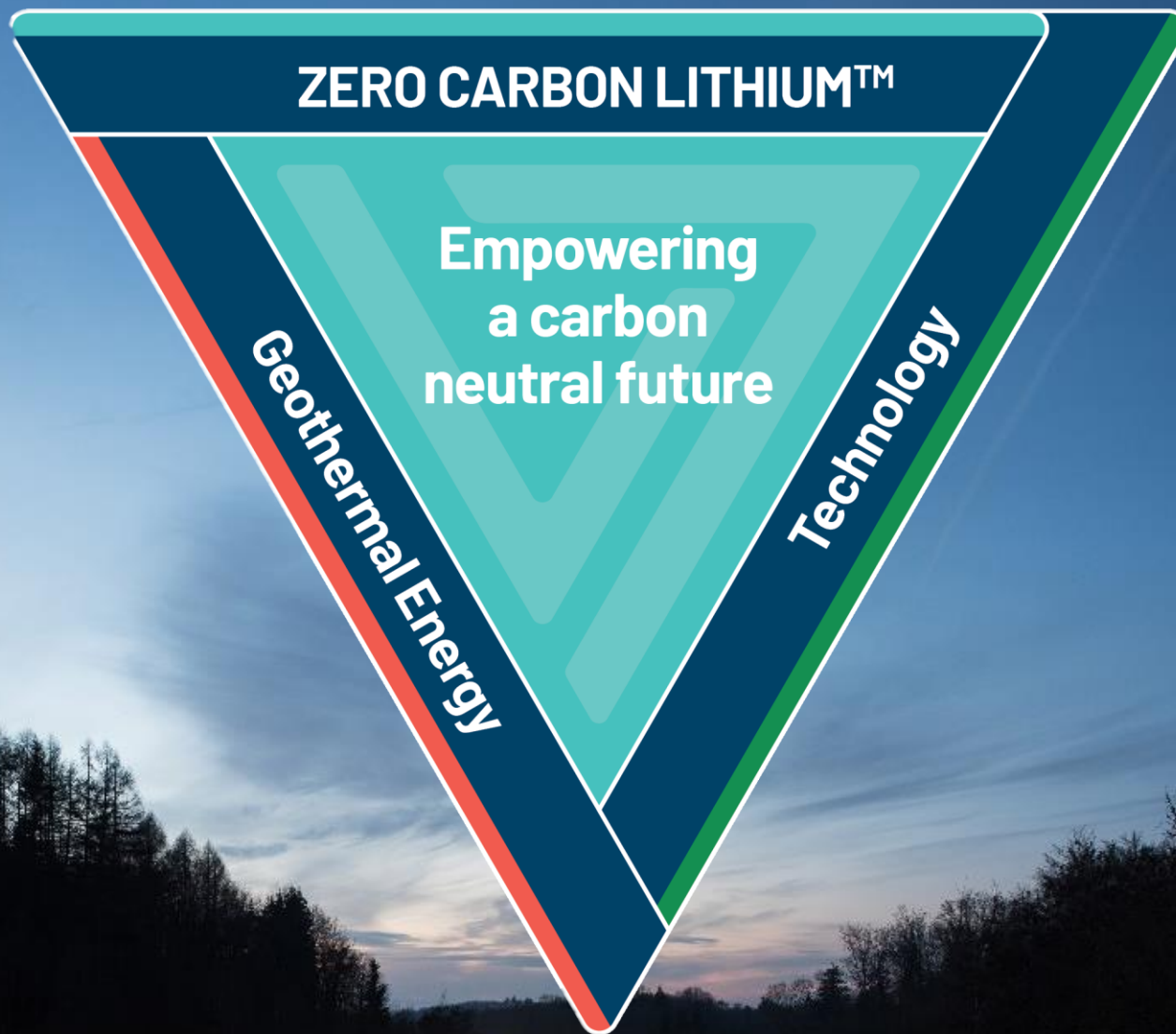
DETERMINED

INSPIRING



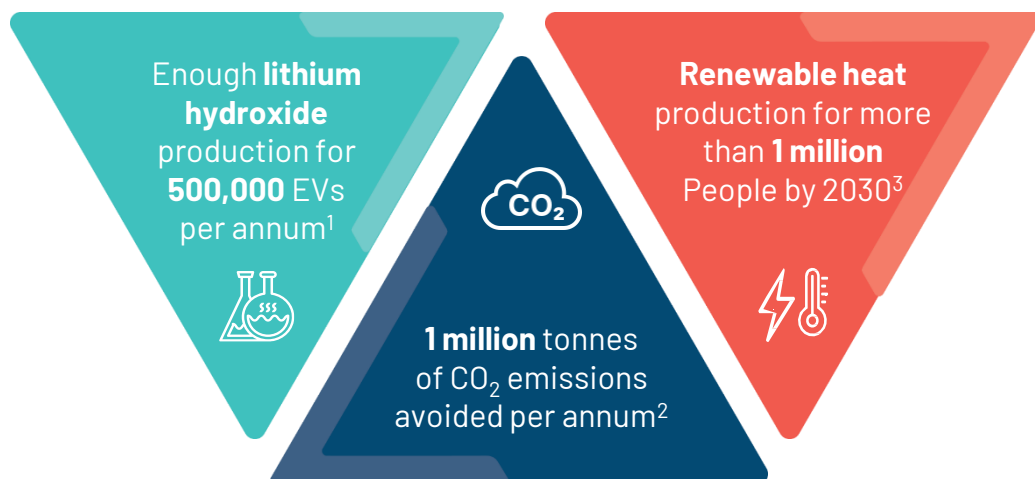


AN INTEGRATED RENEWABLE ENERGY AND ZERO CARBON LITHIUM™ PROJECT



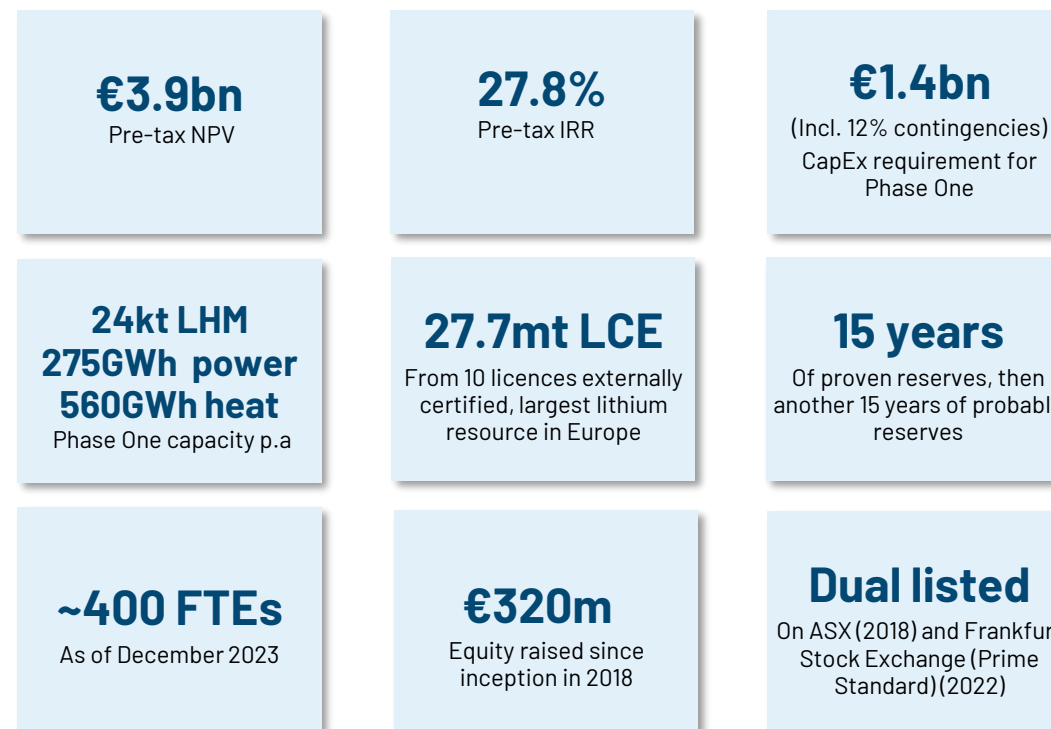
WHO WE ARE

Vulcan's unique **Zero Carbon Lithium™** Project aims to produce both renewable geothermal energy, and lithium hydroxide for electric vehicle (EV) batteries, from the same deep brine source in the Upper Rhine Valley, Germany

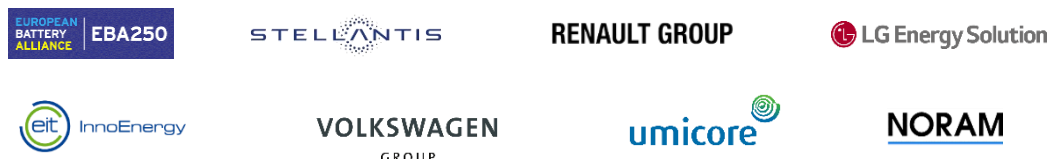


➤ Aiming to become the world's first **integrated** lithium chemicals and renewable energy producer with **net zero greenhouse gas emissions**

Key figures based on the Bridging Engineering Study (Nov 2023)¹



Vulcan's key partners:



Note(s): ¹ Based on Phase One production target capacity of 24ktpa from Bridging Engineering Study (BES) announcement of November 16th 2023, Phase Two production target capacity of approx. similar figure from PFS (refer to Technical Information statement in Disclaimer), and Vulcan internal estimated average EV battery size and chemistry in Europe; ² CO₂ emissions avoidance target based on Minviro LCA data on Vulcan project and lithium industry peer averages in the same LCA; ³ Based on average per capita heat consumption in Germany of 6,200 kWh (<https://www.destatis.de/>) and the estimated capacity for heat production from Vulcan's long term development areas, in a pure heat (no power) scenario



KEY INVESTMENT HIGHLIGHTS



Unique offer in the EV value chain: carbon neutral lithium with the co-production of renewable energy.



Largest lithium resource in Europe and construction-ready.



Low cost of production and long-term customer relationships.

VOLKSWAGEN
AKTIENGESELLSCHAFT

RENAULT GROUP

umicore

STELLANTIS

LG Energy Solution



Favourable long term market dynamics and supporting policy and regulation.



Growth Opportunities: development pipeline and technology assets that can be deployed globally.



Highly experienced team derived from oil and gas, chemical and geothermal industries.

CORPORATE SNAPSHOT

ASX/FSE (Prime Standard)	VUL	
Shares on issue	~172m	
Cash at 31 December 2023	€78.6m	
Market Cap	ca. €320m (A\$530m)	
Top shareholders¹	Dr Francis Wedin	~10%
	Stellantis	~7%
	HPPL	~5%
	Gavin Rezos	~5%



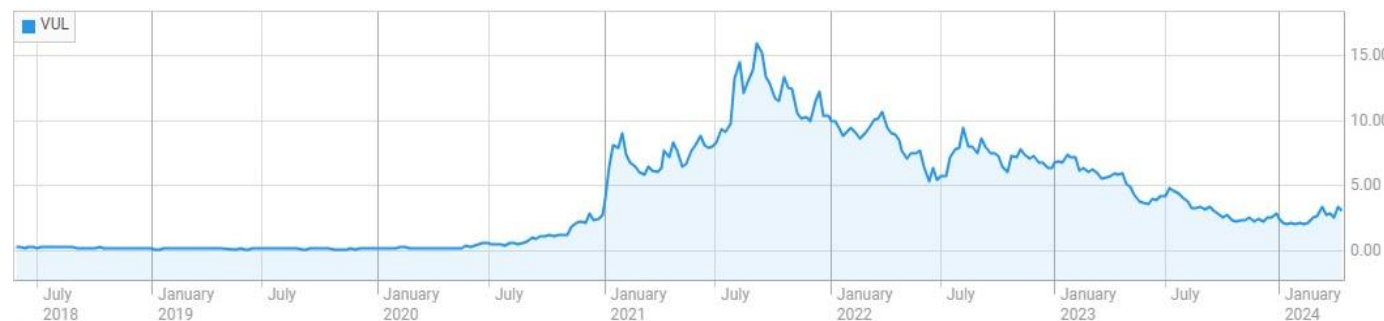
Daniel Tydde

Company Secretary and
Head of Legal & Compliance
Australia
Perth

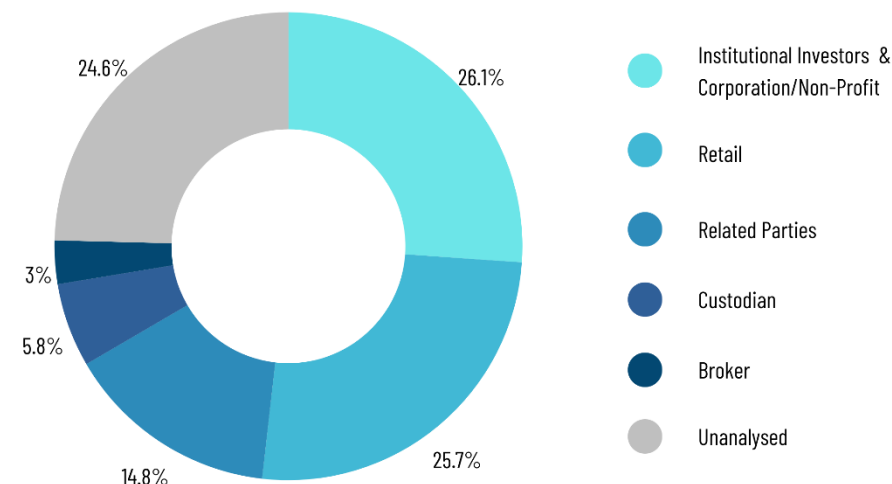


Dr. Meinhard Grodde

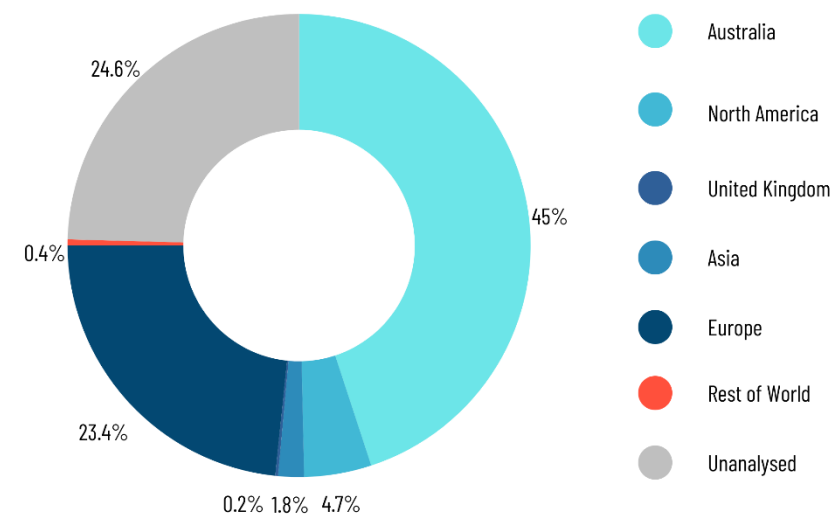
Head of Legal &
Compliance
Germany
Karlsruhe



Total Shareholder Composition



Total Shares by Geography



Note(s): ¹. Based on publicly available information



BOARD OF DIRECTORS AND LEADERSHIP



Dr Francis Wedin
Executive Chair, Founder

Dr Wedin is the founder of Vulcan's ZERO CARBON LITHIUM™ Project and has extensive experience in battery materials and renewable energy. He has a PhD in Geology and an MBA in Renewable Energy.



Gavin Rezos
Deputy Chair

Mr Rezos holds executive Chair/CEO positions of three companies that grew from start-ups to the ASX 300. He has extensive international investment banking and project finance experience. He is currently principal of Viaticus Capital and Non-Executive Chair of Kuniko Limited.



Josephine Bush
Non-Executive Director

Ms Bush is a qualified solicitor, chartered tax advisor and holds a CFA ESG investing qualification and sustainable finance certification. She was a member of the Ernst & Young Power and Utilities Board and UK&I Governance Board and was a senior partner at EY for 14 years.



Cris Moreno
Managing Director & CEO

Mr Moreno has over 20 years' global experience in successfully delivering major, unique and challenging capital projects, including in the lithium chemicals, cathode and LNG sectors.



Ranya Alkadamani
Non-Executive Director

Ms Alkadamani is the founder of Impact Group International. A communications strategist focused on amplifying the work of companies that have a positive social or environmental impact.



Dr Heidi Grön
Non-Executive Director

Dr Grön is a chemical engineer by background and an accomplished executive with over 22 years' experience in the chemicals industry. Since 2007, Dr Grön is a senior executive with Evonik, one of the largest specialty chemicals companies in the world.



Felicity Gooding
Group Chief Financial Officer

Ms Gooding has 20+ years' experience in strategic and financial analysis, corporate finance, mergers and acquisitions, debt funding, management and financial accounting & governance.



Dr Günter Hilken
Non-Executive Director

Dr Hilken has over 35 years' experience and a deep understanding of the German chemicals, renewables and infrastructure investment sectors and, through leading industry advocacy associations, the German Government at the State and Federal level.



Dr Horst Kreuter
Chief Representative Germany,
Co-Founder, Board Advisor

Dr Kreuter is an experienced businessman and engineering geologist, with a distinguished record of project development and consulting in the geothermal sector. Dr Kreuter is co-founder of the ZERO CARBON LITHIUM™ Project.



Annie Liu
Non-Executive Director

Ms Liu started her 20+ year career as an engineer at Microsoft before moving to Tesla where she progressed to Head of Supply Chain, Battery and Energy at Tesla before moving to Ford as the Executive Director of purchasing for the e Line.

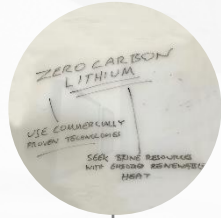


Julia Poliscanova
Special Advisor

Ms Poliscanova is a senior director with the EU's Transport and Environment, instrumental in shaping policies around EU vehicle CO₂ standards and sustainable batteries. She is also on the steering committee for the Battery CO₂ Passport program of the Global Battery Alliance.



OUR ACHIEVEMENTS TO DATE



Vulcan Energy Resources Ltd. Founded privately as Zero Carbon Lithium Company by Dr. Francis Wedin and Dr. Horst Kreuter, starting from a "whiteboard idea"

Lithium extraction test work commences



Two institutional capital raises for a total of \$320m

Acquisition of two electric drill rigs



Became a commercial renewable energy producer

First renewable heat offtake signed with MVV

STELLANTIS

Stellantis becomes first automaker to invest equity in a lithium company: \$76m investment into Vulcan

High grade, lowest impurity LHM produced from pilot plant



Completion of Positive Phase One DFS
DFS

Commissioning and opening of LEOP after three years of DLE test works

BES
Bridging Engineering Study completed



Start of LiCl production at LEOP

2018

2021

2022

2023

2024

ASX Listing May 2018

SS
Scoping Study completed

PFS
Released

Estimation of largest Lithium resource in Europe - Globally significant



Acquisition of German engineering companies to create larger in-house team

Five binding lithium hydroxide agreements signed

STELLANTIS
VOLKSWAGEN
AKTIENGESELLSCHAFT
RENAULT GROUP
LG Energy Solution
umicore

FSE Prime Standard Dual Listing successfully completed

Successful in-house development of VULSORB®

Construction of Vulcan's Lithium Extraction Optimisation Plant commences



\$109m institutional equity raise

Successful completion of lithium extraction pilot test work

Second joint project signed with Stellantis to decarbonise energy supply for their operations

Project level debt and equity financing kick off

STATUS UPDATE



Development	Subsurface & drilling <ul style="list-style-type: none"> ✓ Streamlined Field Development Plan ✓ Insheim geothermal plant operating ✓ First new site prepared at Schleidberg ✓ Improved well production strategy with a hybrid re-injection model 	Land & Permits <ul style="list-style-type: none"> ✓ Access acquired to 5 well sites so far (out of 7) ✓ Remaining sites to be secured by mid-2024 ✓ Construction rights and subsequent acquisition¹ of "D12" land (Lionheart area) granted - D12 to host the ORC plant and LEP ✓ CLP plot already secured at the Hoechst Chemical park 	Contracting & Procurement <ul style="list-style-type: none"> ✓ Bridging Engineering Study published on November 16th, 2023 ✓ "Class 2" cost estimates and improved risks mitigation ✓ EPC and EPCm contract discussions advanced
	Direct lithium extraction Upstream <ul style="list-style-type: none"> ✓ DLE test plant operating for more than 36 months ✓ 10,000s hours of stable successful operation ✓ Optimisation plant (LEOP) commissioned ✓ LEOP successful SOP in April 2024 at 90-95% Li recovery 	Central lithium plant Downstream <ul style="list-style-type: none"> ✓ Lithium electrolysis proven at lab and demo plant level with commercial scale cells, no scale up factor of cells to commercial plant ✓ Optimization plant (CLEOP) to start operations in mid 2024 	Reports (ESIA, LTA, LMA) <ul style="list-style-type: none"> ✓ Environmental and Social Impact Assessment³ completed in December 2023, validating the project's sustainability credentials ✓ Market and technical reports (Lead Technical Advisor & Lead Market Advisor) to be finalised by April 2024
	Team <ul style="list-style-type: none"> ✓ ~400 people focused on Phase One ✓ Cris Moreno promoted to CEO ✓ Key hires: Felicity Gooding (Fortescue), Kerstin Müller (Wintershall), Christian Freitag (BASF), Christian Tragut (BASF), Stefan Brand (Clariant), and Carsten Bachg (Worley). 	Financing <ul style="list-style-type: none"> ✓ €320m equity raised since inception ✓ Debt market sounding exercise completed with strong feedback from banks and ECAs² ✓ Strategic equity process progressing well, with interest from O&G companies, offtake and infrastructure investors, among others. 	Public support <ul style="list-style-type: none"> ✓ Strong support received from Government backed ECAs from Australia (EFA), Canada (EDC), France (Bpifrance) and Italy (SACE) ✓ EIB has proposed a financing up to €500M, pending completion of due diligence ✓ Ongoing process for public grants
Operations	Support		

Note(s): ¹ Acquisition conditional on satisfaction of conditions; (2) Export Credit Agency; (3) Environmental and social impact assessments

² <https://www.investi.com.au/api/announcements/vul/99464828-b65.pdf>

³ <https://www.investi.com.au/api/announcements/vul/3290f6ef-51a.pdf>

ZERO CARBON LITHIUM™ PROJECT PHASE ONE



WHY DO WE NEED LITHIUM IN EUROPE?

The market



- EU targets new cars to be **100%** electric by 2035¹
- **1,400GWh** li-ion battery manufacturing estimated capacity by 2030² for EV transition.
- Predictions indicate Europe will see a **57-fold** increase in lithium demand.³

The crisis



- **Zero** local supply of lithium hydroxide. **80%** reliant on China.⁴
- Current supply of lithium is **CO₂** intensive. Western automakers want low carbon sources.⁵

The solution



- Vulcan is developing the only **CO₂ neutral**, zero fossil fuel lithium project in the world, producing lithium **from Europe, for Europe.**⁶
- Vulcan's Zero Carbon Lithium™ Project is the largest lithium resource in Europe.⁷

Vulcan has offtake agreements with some of the largest battery, cathode and EV producers in Europe.

STELLANTIS

VOLKSWAGEN
GROUP

LG Energy Solution

umicore

RENAULT GROUP

Note(s):

¹ https://ec.europa.eu/commission/presscorner/detail/en/ip_22_6462

² <https://www.spglobal.com/marketintelligence/en/news-insights/research/investment-in-lithium-ion-batteries-could-deliver-5-point-9-twh-capacity-by-2030>

³ <https://www.euractiv.com/section/economy-jobs/news/eu-unveils-critical-raw-materials-act-aiming-to-lesser-dependence-on-china/>

⁴ <https://www.bloomberg.com/news/articles/2020-12-03/eu-aims-to-have-30-million-electric-cars-on-the-road-by-2030?leadSource=verify%20wall>

⁵ Refer to next slide. ⁶ Vulcan is not aware of any other such projects either in development or operation

⁷ According to public, JORC-compliant data

WHY DO WE NEED GEOTHERMAL RENEWABLE ENERGY IN EUROPE?

The market



- EU to be climate neutral by 2050. Germany to be fully renewable by 2035.¹
- EU wants to develop local sources of energy.²
- The German Government has set out a vision to boost the country's geothermal potential tenfold to 10 terawatt-hours and add another 100 geothermal projects by 2030.⁹

The crisis



- Dual crises: Ukraine war and climate crisis.
- EU is now sourcing gas from Norway and other areas in the EU. Domestic energy sources are key.³
- 55% of Germany's gas came from Russia pre-Ukraine invasion.⁴
- European emissions need to fall dramatically to avoid climate breakdown and meet carbon neutral by 2050.⁵

The solution



- Fraunhofer: Geothermal renewable energy can meet a quarter of Germany's heating needs.⁶
- German Govt. announced in November '22 the need for 100 new Geothermal projects targeting 10 TWh of geothermal output by 2030.⁷
- The Upper Rhine Valley Brine Field has the hottest geothermal resource in central Europe.
- Vulcan is already commercially producing geothermal, baseload energy in Germany.
- Vulcan is ramping up with the aim to supply a million households with renewable energy by 2030.⁸

Note(s):

¹ <https://www.reuters.com/business/sustainable-business/germany-aims-get-100-energy-renewable-sources-by-2035-2022-02-28/>

² https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal/repowerEU-affordable-secure-and-sustainable-energy-europe_en

³ <https://www.consilium.europa.eu/en/infographics/eu-gas-supply/>

⁴ <https://www.cleanenergywire.org/factsheets/germanys-dependence-imported-fossil-fuels#:~:text=Germany%20%2D%20GAS,imports%2C%20according%20to%20the%20BGR.%E2%80%8B>

⁵ https://climate.ec.europa.eu/eu-action/climate-strategies-targets/2050-long-term-strategy_en

⁶ Roadmap deep geothermal energy for Germany - recommendations for action for politics, business and science for a successful heat transition.

⁷ <https://www.thinkgeoenergy.com/germany-aims-for-100-new-geothermal-projects-by-2030/>

⁸ Based on average per capita heat consumption in Germany of 6,200 kWh (<https://www.destatis.de/>), and the estimated capacity for heat production from Vulcan's long term development areas, in a pure heat (no power) scenario. Germany's geothermal plan: <https://bit.ly/3vPOgsw>

⁹ Germany's geothermal plan: <https://bit.ly/3vPOgsw>

The first integrated project delivering:

Renewable heat and power

Lithium hydroxide

**Meeting the EU's electric vehicle battery
critical raw material needs.**

FROM EUROPE, FOR EUROPE.

**Providing affordable,
baseload renewable
energy, and
employment, for local
communities:**

**THOUSANDS
of
indirect jobs estimated
to be created, linked to
the energy transition,
decarbonisation, and
electrification of
transport.**



BUILDING RENEWABLE ENERGY AND LITHIUM CHEMICALS PRODUCTION



Phase One

275 GWh power p.a.
Up to 560 GWh heat p.a.

LiCl concentrate for
24,000tpa LHM equivalent

24,000tpa
LHM (capacity)

Lithium hydroxide
(LHM) distributed
to the EU market

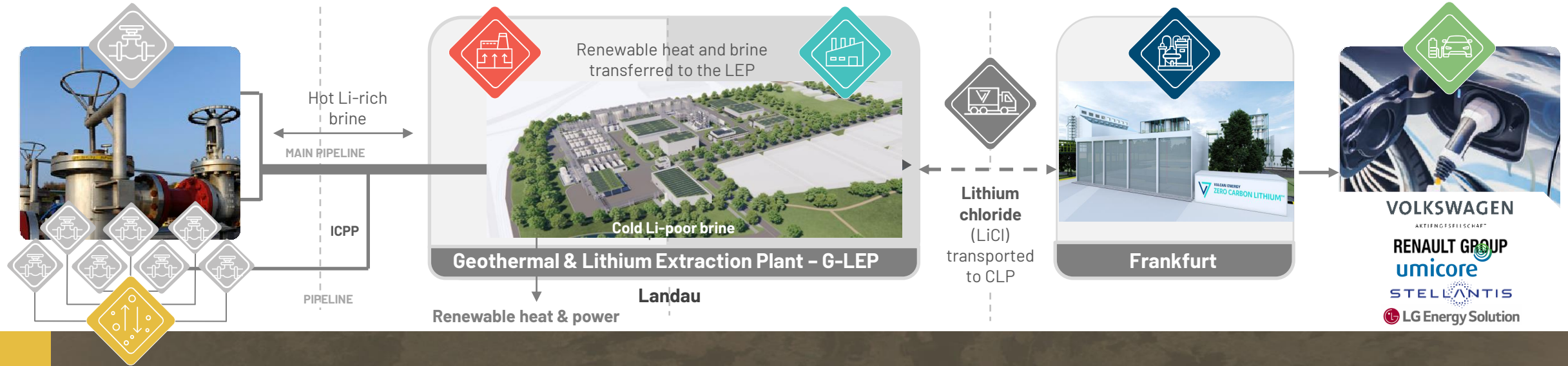
Well Sites

Geothermal Plant

Lithium Extraction Plant (LEP)

Central Lithium Plant (CLP)

Electric Mobility



Geothermal and lithium brine field resource

1. Reservoir: 3 to 5km deep

Wells are drilled into the deep, hot, lithium-rich brine resource, which is pumped to the surface

Re-injection of brine. A closed loop, circular system

0.57 Mt LCE @ 181 mg/l Li Reserves, 4.16 Mt LCE @ 181mg/l Li Resource in the core "Lionheart" area, centred around current production wells in core of the URVBF field.¹

Note(s):¹. See Competent Person Statement in Appendices.

ZERO CARBON LITHIUM™ PROJECT

Low risk | Optimised FDP | Largest resource

Improved Field Development Plan (FDP) down to **one core production area** that is already commercially producing brine.

Proved and Probable Reserves increase to 0.57 Mt Lithium Carbonate Equivalent (LCE) @ 181 mg/l Li in the core “Lionheart” area, centred around current production wells in core of the URVBF field.¹

Resource of 27.7 Mt LCE @ 175 mg/l Li, **Europe’s largest lithium resource**¹, contained LCE from 10 of its 16 German licences.

Significant scope for **pipeline of further phased development**, with a modular approach to further plant build.



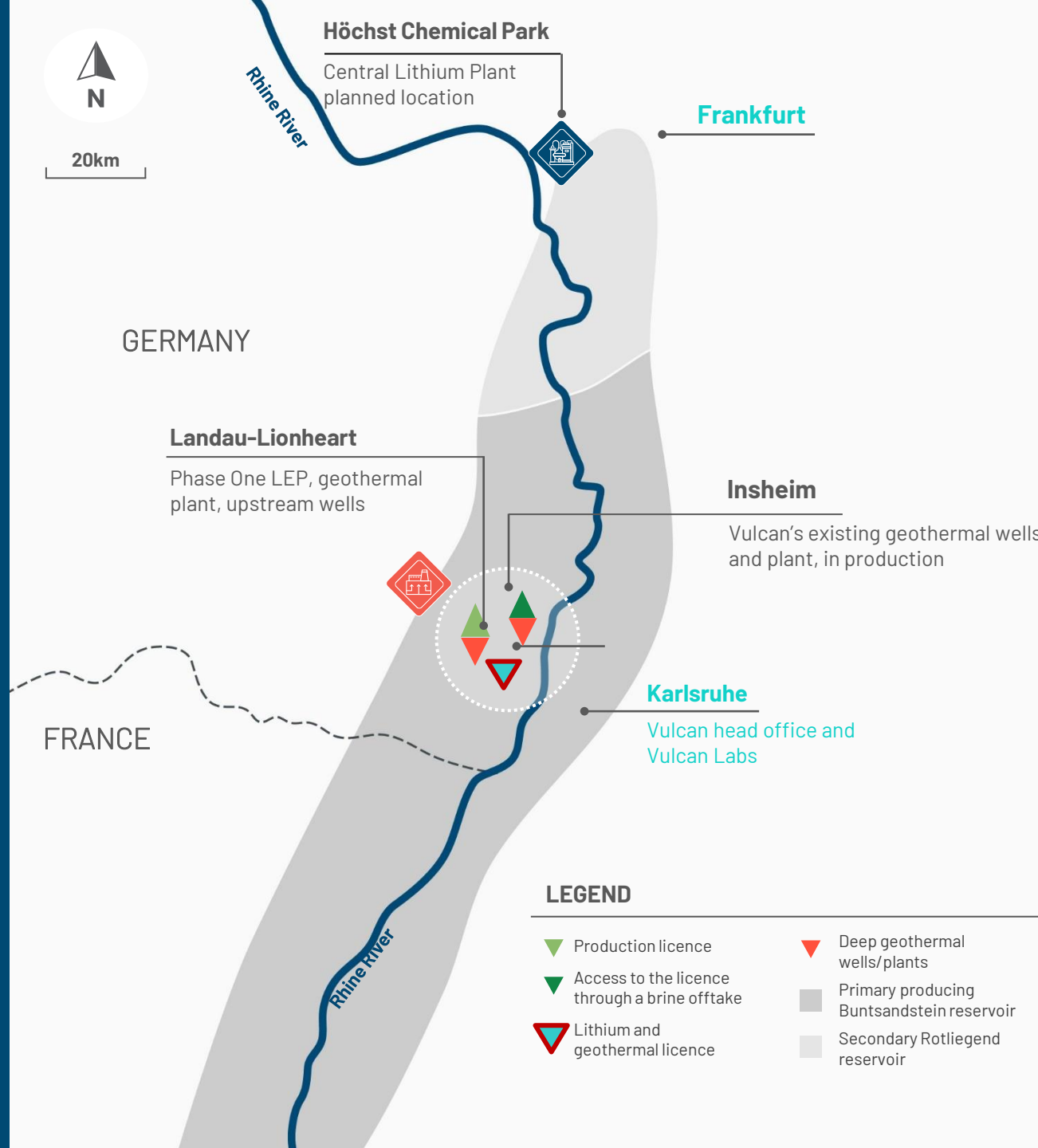
PHASE ONE AREA

Phased growth approach, Phase One starting from core of field where Vulcan **already owns production/re-injection wells in operation.**

Phase One focuses on **Proved Reserves** of 318kt LCE for years 0-15 of production, then Probable Reserves of 252kt LCE for years 16-30.¹

Brownfields development area around existing production only.

Integrated renewable energy and lithium battery chemicals operation, close to lithium offtake customers and renewable heat customers.



Note(s): ¹ Refer to Competent Person Statement in Appendices

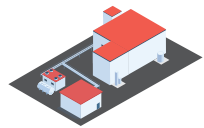
PHASE ONE UPSTREAM-DOWNSTREAM: PRODUCTION STRUCTURE



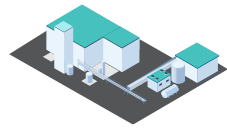
UPSTREAM



5 new well sites, 2 existing.

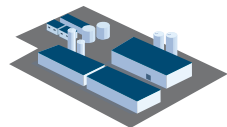


One existing geothermal plant. New, larger geothermal plant near existing one.

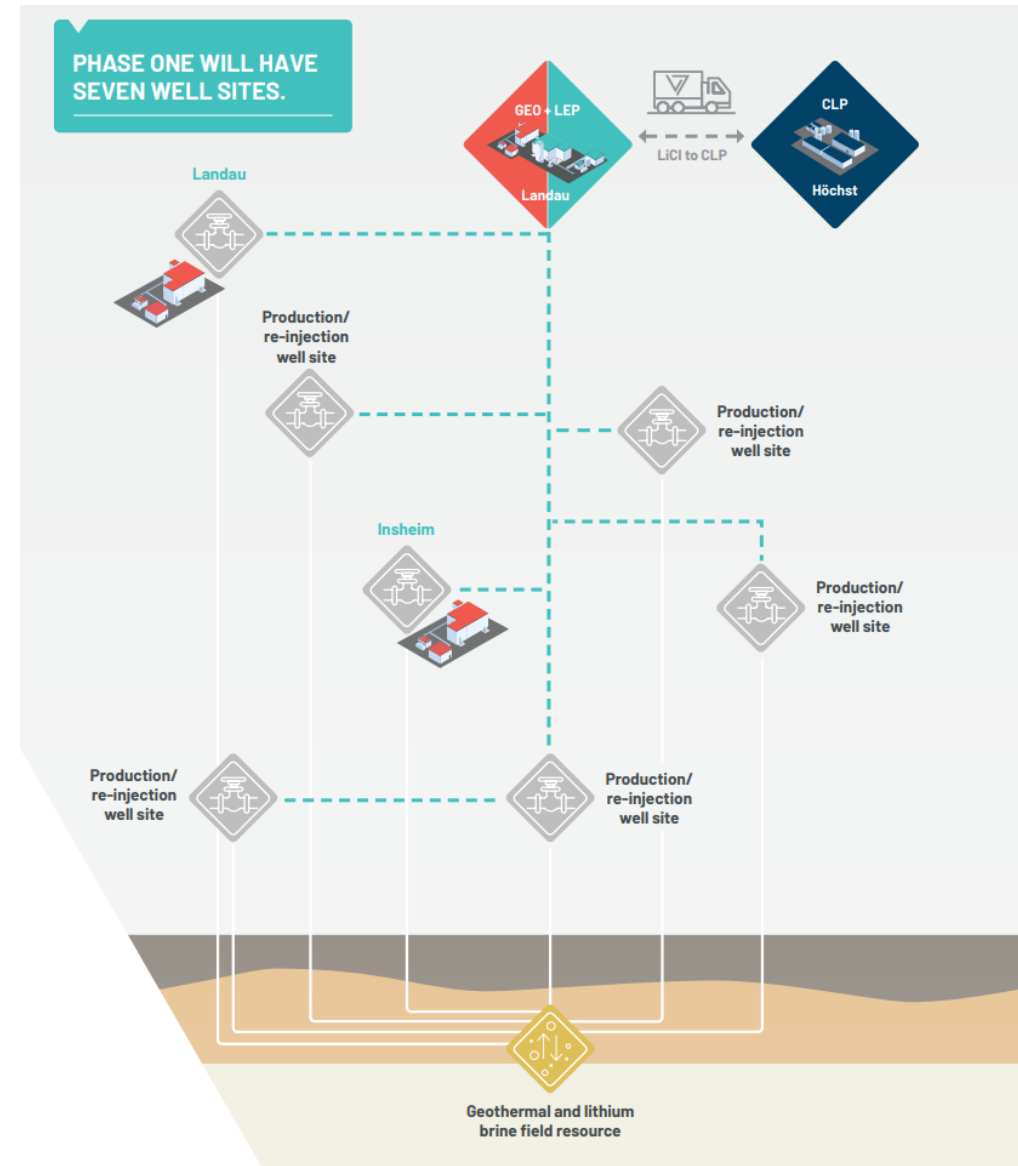


New Lithium Extraction Plant.

DOWNSTREAM



New Central Lithium Plant.



VERCANA

Delivering the **Wärmewende** (heat transition)

- Highly experienced and integrated well construction and operations team from oil and gas and geothermal industry.
- Full scale well delivery process capability: fully aligned towards Vulcan's field development plan.
- Experience in onshore operations, HPHT drilling, German regulatory requirements with a strong QHSE culture.

V10 and V20 Drill Rigs: Inhouse full electric drill rigs and teams

- Full scale rig refurbishment nearly complete.
- Hookload capability of up to 550 tonnes.
- Drilling capability up to 10,000m.
- Triple derrick system.
- 3 mud mumps - up to 8,000LPM.
- Solid controls equipment grade.
- Skidding system for cluster well sites.



GEO THERMAL AND LITHIUM EXTRACTION PLANT: G-LEP





GEOTHERMAL ENERGY PLANTS



Phase One: one existing geothermal plant and one new site

	Insheim (operating)	Lionheart (development)	Total
Power production (MW)	4.2	27.5	32
Heat production (MW)	0.5	79.5	80
Power production (GWh p.a)	37	238	275
Heat production (GWh p.a)	3.5	556	560

Vulcan existing Insheim plant

- Existing geothermal renewable energy plant with over 10 years of successful production.
- Insheim plant supplies ~6,500 households with renewable power.
- Extensive operational experience in-house.



Planned Lionheart plant

- Initially planned to produce mostly power, Vulcan’s new geothermal plant will increase district heat production over time for local communities.
- The City of Landau has agreed, in December 2024, on the sale of the “D12” industrial area with Vulcan⁽¹⁾ for the new geothermal plant site.



Note(s): ¹ Acquisition conditional on satisfaction of conditions



LITHIUM EXTRACTION OPTIMISATION PLANT (LEOP) IN LANDAU

Creating operational readiness

- Production of LiCl started April 2024, **the first fully domestically produced lithium chemicals in Europe.**
- Early results with consistently over 90% (up to 95%) lithium extraction efficiency
- LEOP will train staff in a pre-commercial environment for **targeted operational readiness** prior to the start of commercial production.
- LEOP will send significant volume of product (i.e., LiCl solution) to the Central Lithium Electrolysis Optimisation Plant (CLEOP) to make Battery Grade LHM.
- Vulcan uses Adsorption-Type Direct Lithium Extraction (A-DLE).





LITHIUM EXTRACTION OPTIMISATION PLANT LEOP



COMMERCIAL LITHIUM EXTRACTION PLANT (LEP) IN LANDAU



- **Construction rights and subsequent acquisition⁽¹⁾ of “D-12” land** granted by the city of Landau in December 2024. This follows Vulcan’s **building permit submission in November 2023** (in line with Vulcan’s timeline)
- Will be constructed next to new Phase One Geothermal Plant in Landau
- Total **targeted capacity to be 24ktpa LHM equivalent in LiCl form**
- From the LEP, **LiCl solution will be transported** to the CLP at Industrial Park Höchst (Frankfurt)
- **Modular build allows** for further phased development across other phases in Upper Rhine Valley Brine Field (URVBF)



Planned new commercial Phase One geothermal plant and lithium extraction plant (LEP) in Landau

Note(s): ¹Acquisition conditional on satisfaction of conditions

ENSURING COMMERCIAL OPERATIONAL READINESS FOR THE LEP



LAB
SOP 2020

PILOT PLANT PP1
SOP 2021

PILOT PLANT P1A
SOP 2022

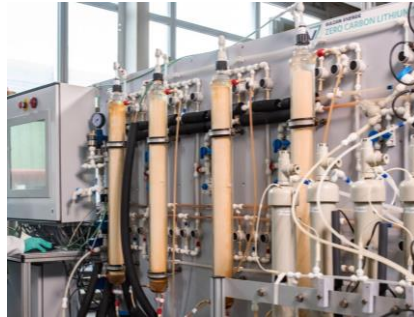
LEOP
SOP April 2024

COMMERCIAL LEP

Grams of product



Kilos of product



100s of kilos of product



Hundred tonne capacity



Kilotonnes capacity



24kt plant, divided in 12 DLS production lines

Optimise and improve performance

Optimise and improve performance

Optimise and improve performance

Optimise and improve performance, ensure operational readiness

Feed flow per column	1.5 l/h
Sorbent volume per column	0.25 l
Eq. LHM	

1.5 l/h
0.25 l

12-20 l/h
1-2 l

100 l/h
15 l
105 g/h (= 840 kg/y)

5,000 l/h (= 1.4 l/s)
830 l
45 t/y

270,000 l/h (= 75 l/s)
45,000 l
2,000 t/y



x10



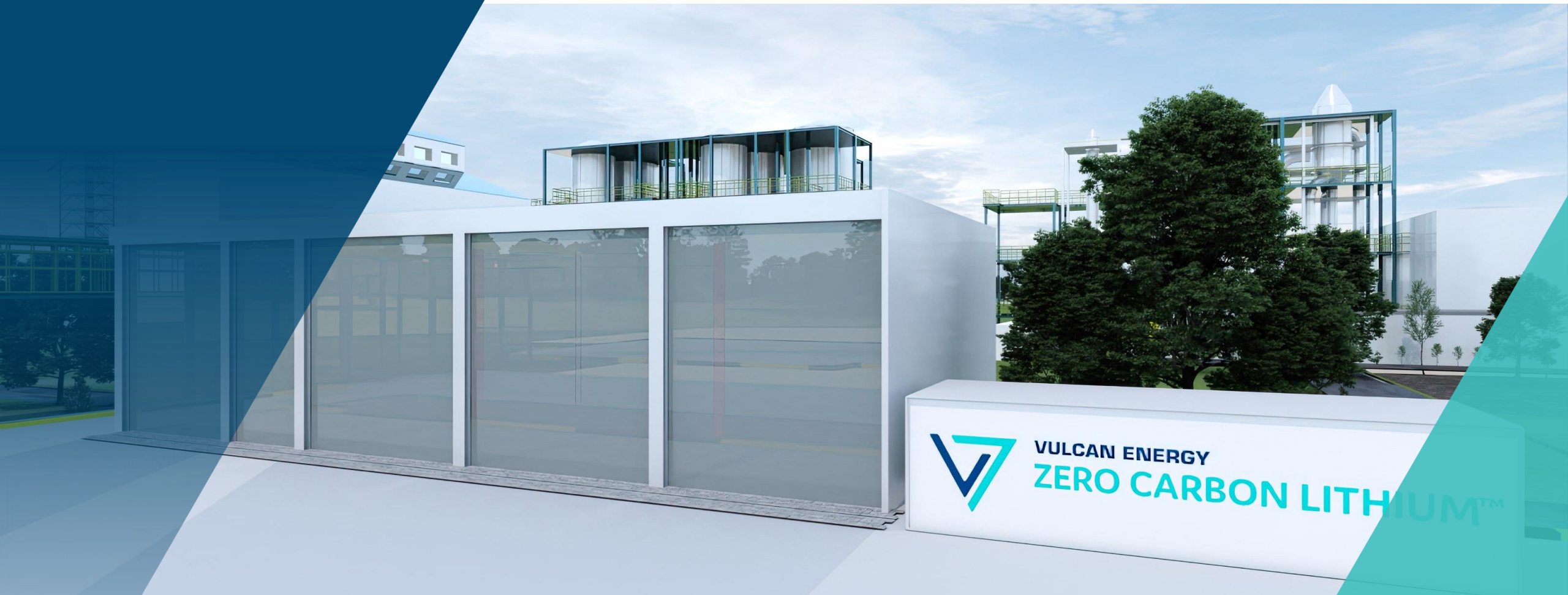
x55



x54

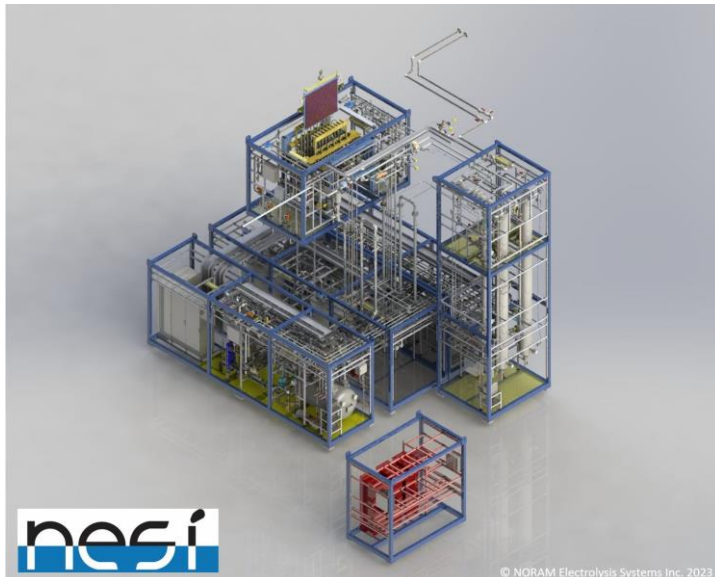
Scale-up factors based on sorbent volumes per column

CENTRAL LITHIUM PLANT (CLP)



ENABLING OPERATIONAL READINESS WITH CENTRAL LITHIUM ELECTROLYSIS OPTIMISATION PLANT (CLEOP)

- Both optimisation and commercial plants **will be located at the Höchst Industrial Park.**
- CLEOP is planned to **start operation in H1 24**, training staff in pre-commercial operational setting of
 - (i) the electrolysis from LiCl to LHM solution;
 - (ii) LHM crude and pure crystallisation; and
 - (iii) LHM drying.
- Optimisation plant built to start **sending volume of product to offtakers for pre-qualifications testing.**



ELECTROLYSIS – GREAT BENEFITS, LOW RISK

Anticipated key benefits in final step in our production steps (lithium chloride converted to battery-grade LHM via electrolysis)



Using sustainable energy, electrolysis offers a **carbon neutral route to LHM.**



No production of any waste by-products.



High quality LHM due to upstream brine purification and membrane electrolysis.



Low risk base technology

Lithium-chloride electrolysis is a **close analogue to well-established chloro-alkali industry.**

NESI Technology package arms **robust design** with focus on **reliability** and operational flexibility.

Technology already proven using commercial scale cell.



Additional de-risking activities

Complemented **with proven chlorine and lithium processing units** from established technology providers.

Built up a strong operations team with **in-depth expertise** from chloro-alkaline industry to **integrate** the building blocks.

Priority on a **robust low-risk technology** before optimising performance.



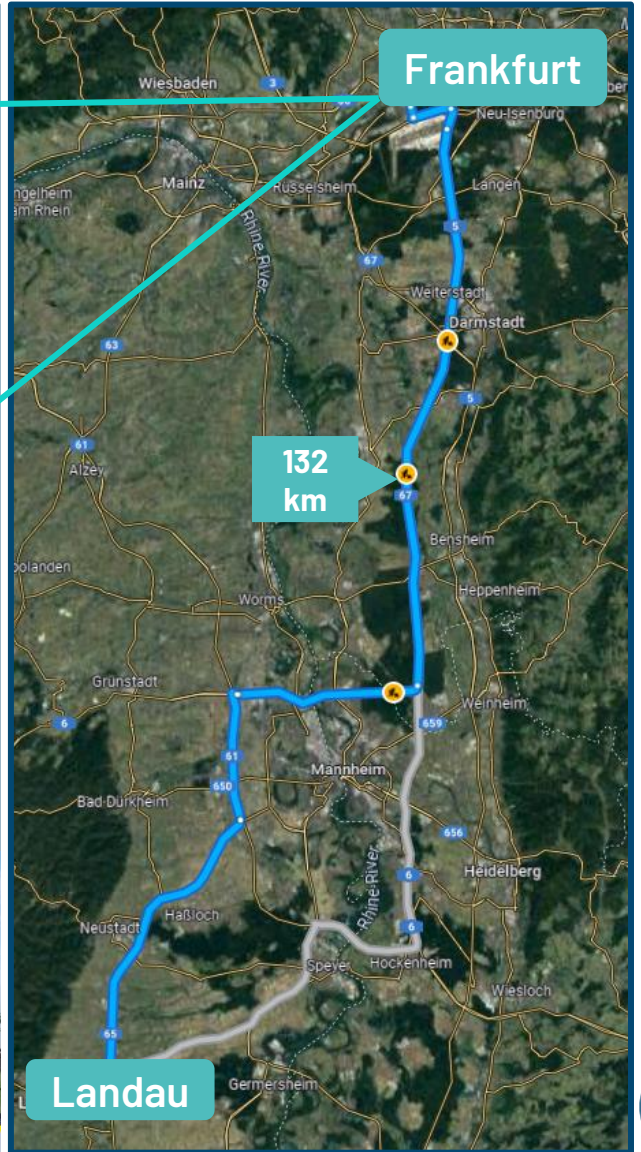
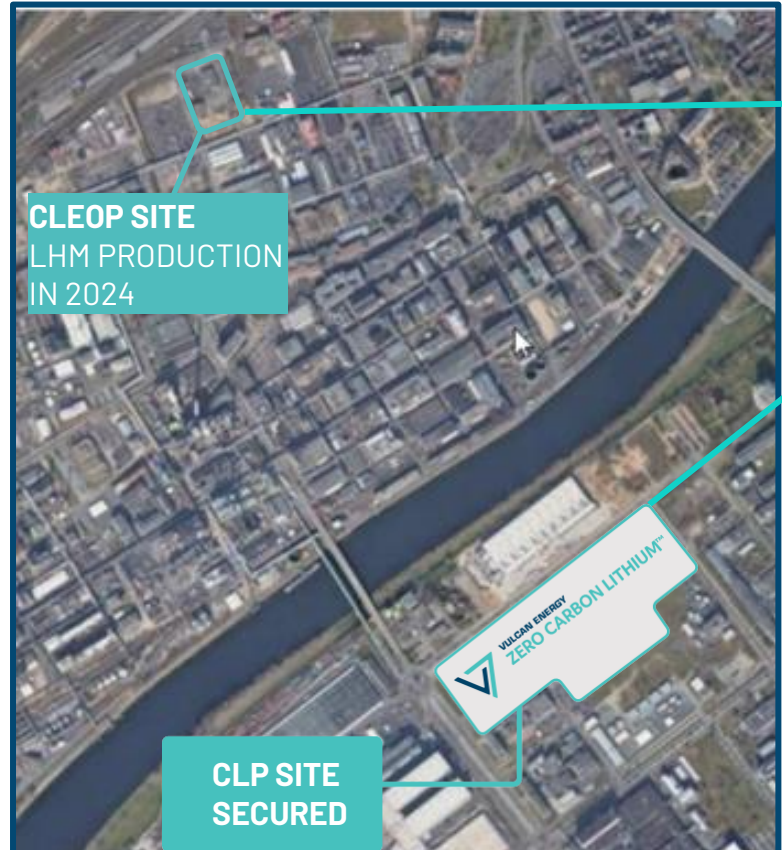
CENTRAL LITHIUM ELECTROLYSIS OPTIMISATION PLANT



BUILT FOR GROWTH: BASE INFRASTRUCTURE PROVIDED FOR UP TO THREE PHASES

- CLP planned to be located in Frankfurt (Höchst Industrial Park). Close to 100,000sqm secured.
- **Targeted 24,000tpa LHM capacity with space for further modular expansion.**
- Conversion of LiCl to **battery grade LHM using electrolysis**. Only by-product (saleable) is HCl.
- Recycle of **purge streams back to LEP - low waste.**
- Höchst is one of Europe's largest industrial estates and is home to around 90 chemical and pharmaceutical companies.
- Infracore (Industrial Park operator) contracted to supply power, utilities and services.

Location in the Höchst Industrial Park



NUMBERING UP, NOT SCALING UP ELECTROLYSIS CELLS



PILOT PLANT (EXT.)

DEMO PLANT (EXT.)

CLEOP

COMMERCIAL CLP

SOP 2021

SOP 2022

SOP mid 2024

Kilos of product

Hundreds of kg

Tonnes capacity

Kilotonnes capacity



Feed flow 40% LiCl

12l

Confidential

700m³/y

48,000m³/y

LHM capacity

Kgs produced

Confidential

350t/y

24,000t/y

Number of cells

1

1

5

600

Size electrolysis cells

0.015m²

1.5m² - commercial scale

1.5m² - commercial scale

1.5m² - commercial scale

x100

x1

x1



Prove technology

Optimise and improve performance

Optimise and improve performance, ensure operational readiness

PHASE ONE ECONOMICS AND FINANCING UPDATE



LITHIUM PRICE VOLATILITY MITIGATED BY STRATEGIC SUPPLY PARTNER CONTRACTS

- High quality European-focused offtake partners.
- All offtakes are binding, take-or-pay, with agreed pricing mechanisms.
- Pricing mechanisms are a basket of fixed, floor-ceiling and fully floating prices which provides assurance and more stability to lenders during payback period.



€50M Equity investment and binding lithium hydroxide offtake agreement, initial 10-year term.



Binding lithium hydroxide offtake agreement, initial 5-year term.



Binding lithium hydroxide offtake agreement, initial 6-year term

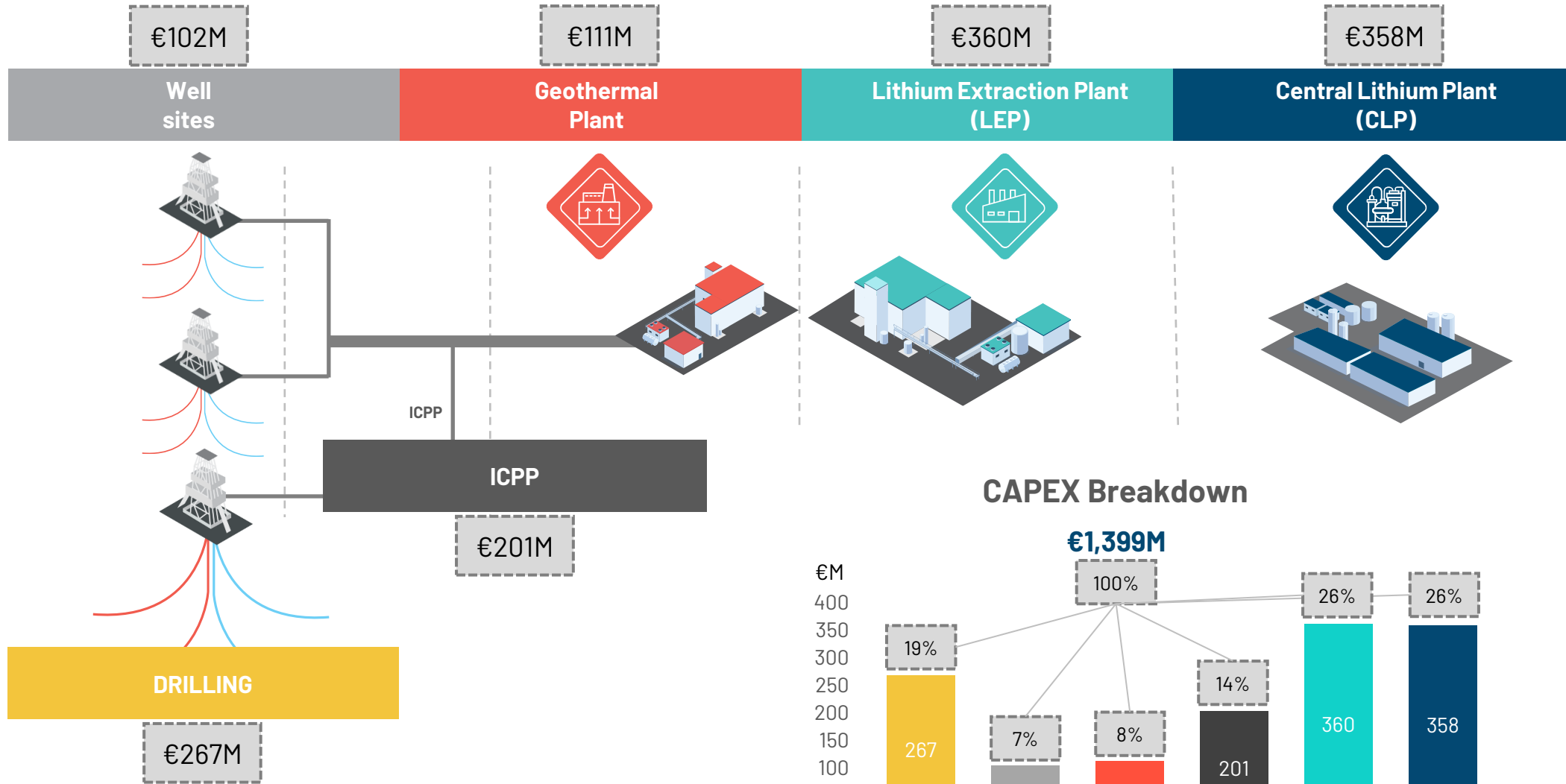


Binding lithium hydroxide offtake agreement, initial 5-year term.

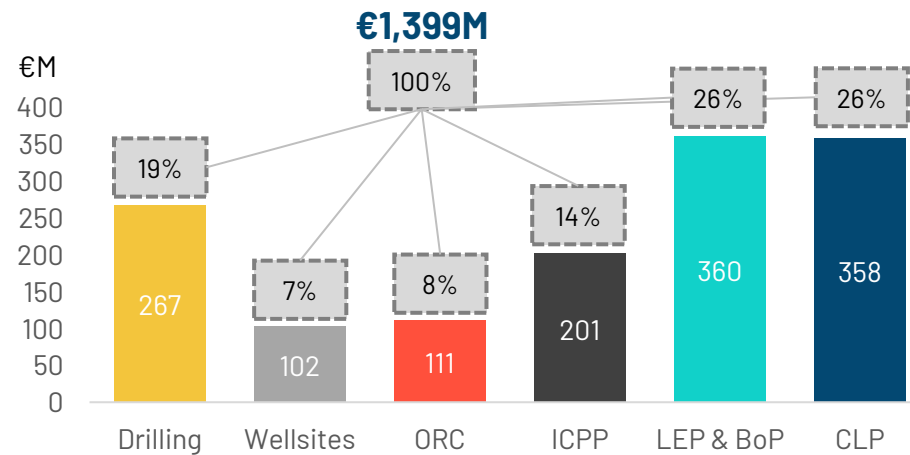


Binding lithium hydroxide offtake agreement, initial 5-year term.

PHASE ONE PROJECT FORECAST CAPEX¹



CAPEX Breakdown



1. Based on the results of the Bridging Engineering Study.



LOW COST | STABLE PRICING | ROBUST FINANCIALS | STRONG FINANCING PLAN

Binding lithium hydroxide offtake agreements with Tier One customers

Support stability during payback period, and protection from lithium price fluctuations.

Low OPEX of €4,022/t lithium hydroxide

One of the lowest on the industry cost curve.

Reduction in CAPEX of ca. €100m to Phase One CAPEX of €1.39B.

Robust financials:

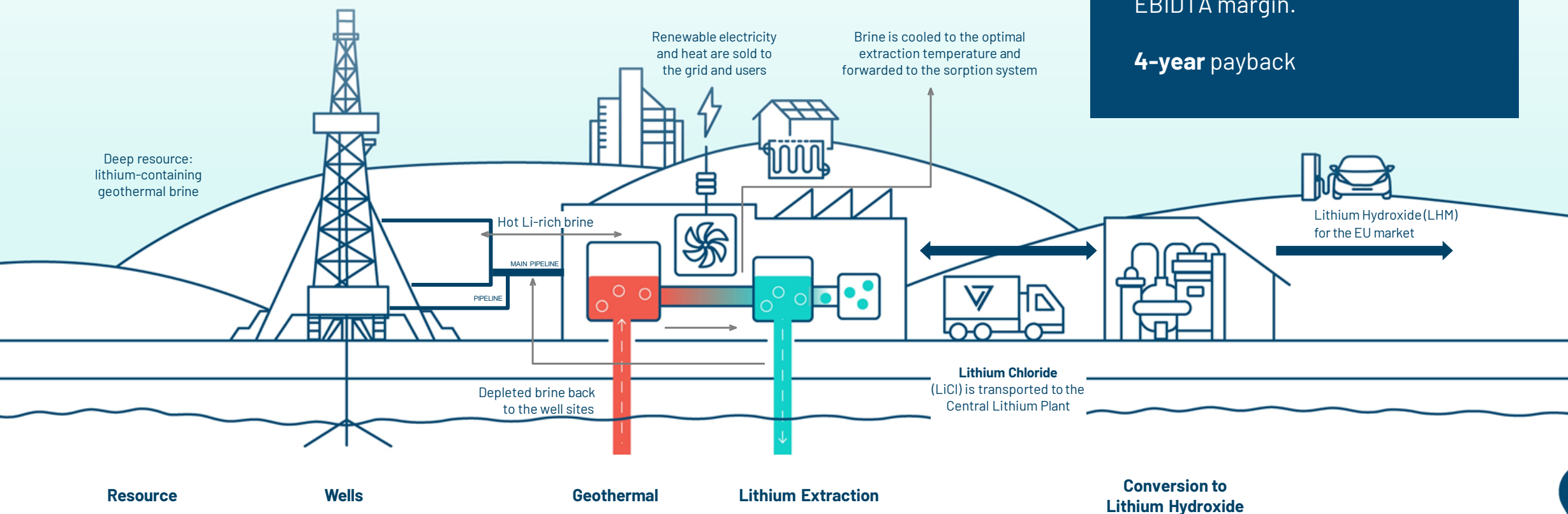
€3.9 billion
(A\$5.6 billion)
pre-tax NPV8

€2.6 billion
(A\$4.2 billion)
post-tax.

27.8% estimated IRR pre-tax,
22.5% IRR post tax.

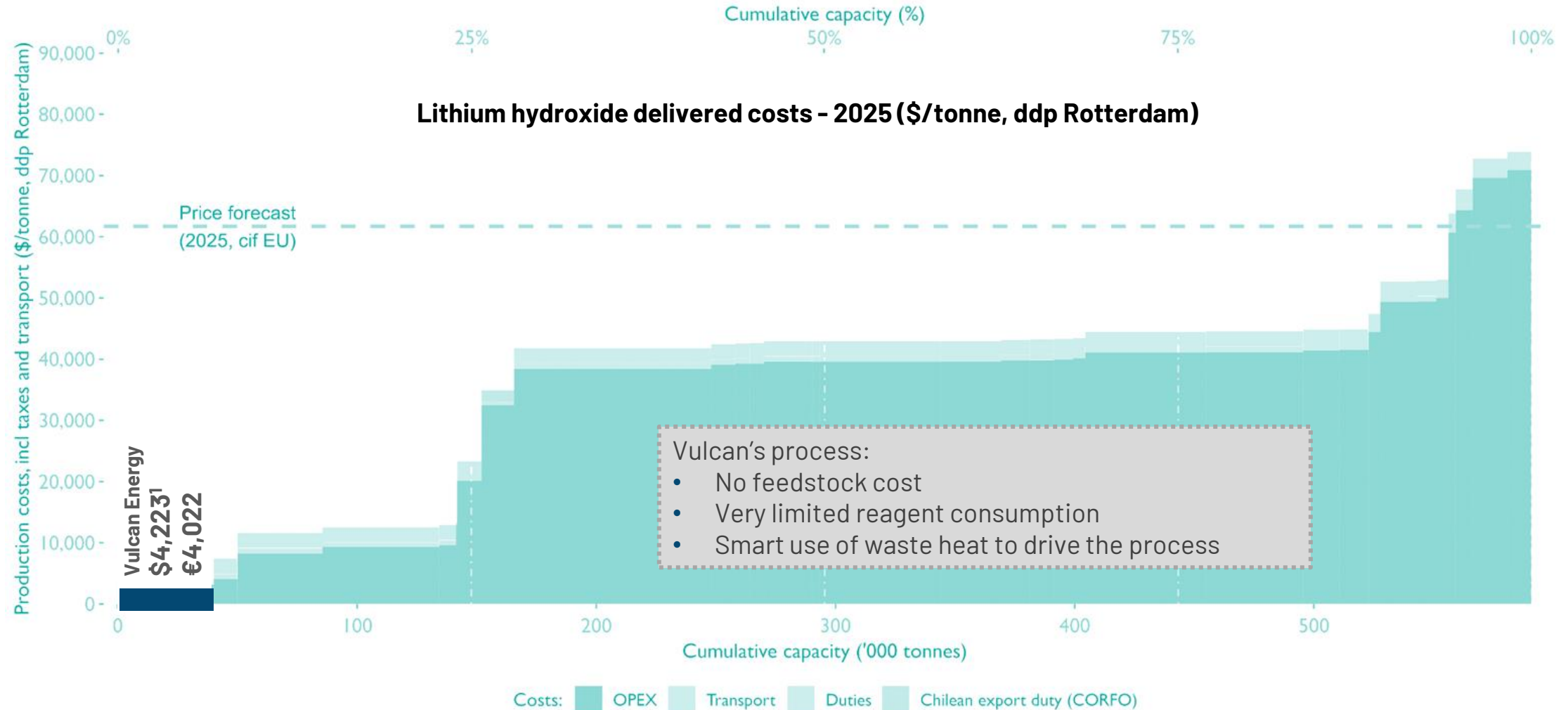
Target revenues of **€705m** per annum, with very attractive **74%** EBIDTA margin.

4-year payback



GLOBAL COST CURVE LHM – PROJECTED

Vulcan’s ZERO CARBON LITHIUM™ Project has the potential to be one of **the lowest cost integrated LHM projects** in the world.



Note(s):

¹Projected cost curve provided by Fastmarkets and Vulcan’s OPEX estimate provided by the Company. Note: The OPEX is based on a production at designed capacity at 24,600t LHM and including an average power price over the project life, excluding inflation. Vulcan’s OPEX converted from € to \$ using 1.05 EUR/USD FX. Vulcan has used a projected cost curve by Fastmarkets as it is the Price Reporting Agency (PRA) for lithium for the London Metals Exchange, and as in Vulcan’s view it would be invalid to compare Vulcan’s future projected costs with current costs from other companies. Fastmarkets’ estimate of a project’s costs uses a bottom-up approach based on assumptions about the operations. On top of this, costs for transport to a common location and any duties that would be applied are added to allow comparison from different sources. Please also refer to the Forward-Looking Statement disclaimer.

FINANCING HIGHLIGHTS AND CONSIDERATIONS

Vulcan has **raised** a total of 320m EUR in equity for project and technology development to date.

Financing process run by BNP Paribas under way, with intended **65:35 debt equity split**, based on market feedback.

Total debt and equity requirements for Phase One are ca. **€1.4B CAPEX**, plus ca. €0.4B for financing costs, DSRA, etc.

Debt

- Substantial indicative support from commercial and development banks during market sounding process.
- EOIs received from Export Credit Agencies in France, Italy, Canada and Australia.
- Environmental and Social Impact Assessment (ESIA) completed by ERM.
- Lender's Technical Advisor due diligence to be finalised by April 2024.
- Substantial indicative support from the European Investment Bank (EIB): up to €500m (A\$825m) of financing.

Equity

- Currently in a process to fund Phase One with strategic equity investment at a project level. Up to 50% project-level sell down considered, to fund 100% of the equity requirement for Phase One (ca. €630m).
- First phase of the process progressing well, strong interest from offtakers/oil and gas/EPCM/financial investors.
- Second phase to commence shortly.

INDUSTRY-LEADING LITHIUM PRODUCTION TECHNOLOGY





VULSORB®

- **VULSORB®** is a specially tailored lithium production technology for lithium-ion adsorption.
- **Highest performance** lithium production technology on the market, as tested by Vulcan on lithium-bearing brines.
- **High capacity:** ~3 g/l Li/l of technology, due to porous structure of the extraction material enable high surface area and adsorption capacity.
- **High** lithium extraction **efficiency:** >90%.
- Main inputs for operation: heat and salinity, naturally occurring in many brines. **Lowers cost and CO₂ footprint** of operation. No acid/base required for loading/unloading.
- **Highly selective**, producing high purity lithium concentrate: adsorbent chemical structure is selective towards the lithium ions due to its small radius; ions such as magnesium, sodium and calcium cannot enter.
- **Tuned structure** to allow for wide range of operational temperature: from room temperature to over 70°C.

	Granular particles
Particle size range	450 - 1050
Temperature	up to 75°C
Adsorption capacity	3 g/l



Dr Stefan Brand
Chief Technology Officer

Lithium technical team lead, former Head of process innovation at Clariant, a leading specialty and sustainable chemical solutions company.

LOW COST, SUSTAINABLE LITHIUM PRODUCTION TECHNOLOGY

Track record

- Global, multi-decade commercial precedent of aluminate-based A-DLE in the lithium industry.

Low operating cost

- Water is used to recover the lithium from the adsorbent – no acid requirement means lower operating cost and less waste.
- Requires heat to work, so lowers operating cost and saves energy when applied to naturally heated sub-surface brines.

Reduces environmental impact

- Highly selective for Li with >90% extraction efficiency, reduces or removes the need for legacy-method large scale evaporation ponds.
- Salinity/heat and water driven process, reduces/removes the need for large quantities of chemical reagents used in legacy lithium production methods.

Product quality¹

- Produces very pure product relative to hard rock and evaporative lithium, an advantage in the battery electric vehicle industry, which has very high product quality standards.

Note(s): ¹ Adsorption-Type aluminium-based Direct Lithium Extraction: The effect of heat, salinity and lithium content / <https://www.sciencedirect.com/science/article/pii/S0011916424001176>



PROVEN TECHNOLOGY, CONTINUOUS OPTIMISATION AND IMPROVEMENTS



- **VULSORB®** belongs to a lithium extraction adsorbent family that has been used by different companies in multiple commercial production assets over the past 25 years.
- **VULSORB® has been optimised and improved over three years** and thousands of cycles of testwork conducted.
- Based on Vulcan's test work over the last three years, **VULSORB®** offers higher lithium extraction capacity than other adsorbents.
- **VULSORB®** has been successfully tested with multiple brines, both in Europe and globally, and **is available for licensing**.
- Continuous improvements continue to flow from Vulcan Technology's laboratories, pilot plants, and commercial optimisation plants.



VULCAN ENERGY
ZERO CARBON LITHIUM™

ADSORPTION-TYPE DIRECT LITHIUM EXTRACTION INDUSTRY OVERVIEW



GLOBAL LITHIUM SUPPLY TODAY

60%
global lithium
production



Hard rock mining

Sourcing lithium hydroxide from hard rock mines for lithium currently has a high CO₂ footprint. Once you mine it, the rock must be roasted with fossil fuels before using large volume of sulphuric acid to produce lithium hydroxide.

30%
global lithium
production



Brines: Reagent and evaporation pond usage *Use reagents to remove impurities from the brine*

Lithium extraction from brines evaporates large quantities of water in some of the driest places on earth. It also has a significant CO₂ footprint, through large use of chemical reagents.

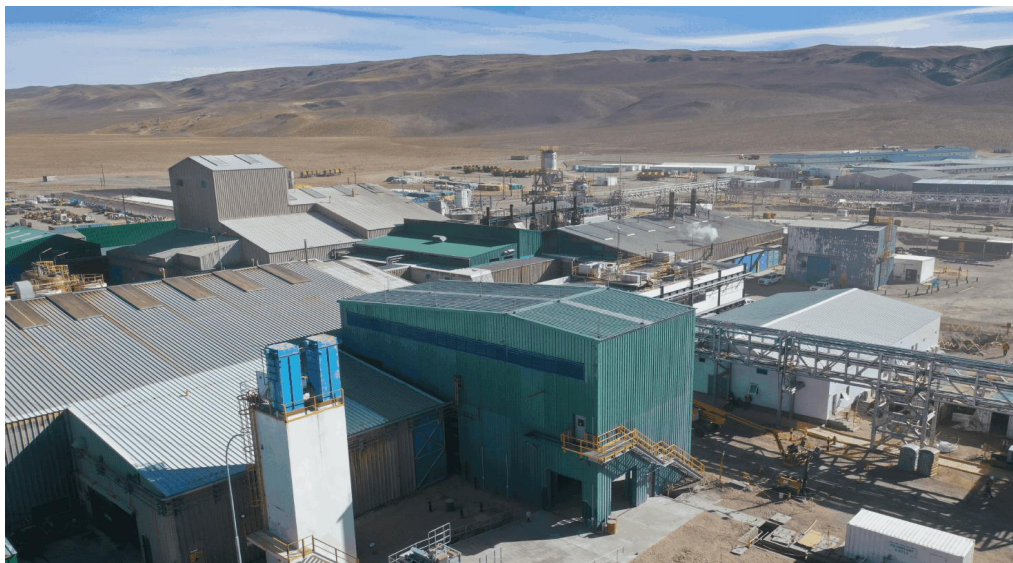
10%
global lithium
production



Brines: Adsorption-Type Direct Lithium Extraction (A-DLE) *Extract only the lithium from the brine, leave everything else in it*

Low or carbon neutral footprint, depending on how the brine is heated. Very low reagent usage in A-DLE process. Low water usage if recycling systems are built into process.

EXAMPLES OF COMMERCIAL A-DLE PLANTS



ARGENTINA - LIVENT HOMBRE MUERTO DLE PLANT -30,000 TPA LCE



CHINA - EVEBATTERY 10,000 TPA LCE COMMERCIAL PLANT BUILT WITH SUNRESIN



ARGENTINA - ERAMET CENTENARIO-RATONES DLE PLANT -24,000 TPA LCE (2024)

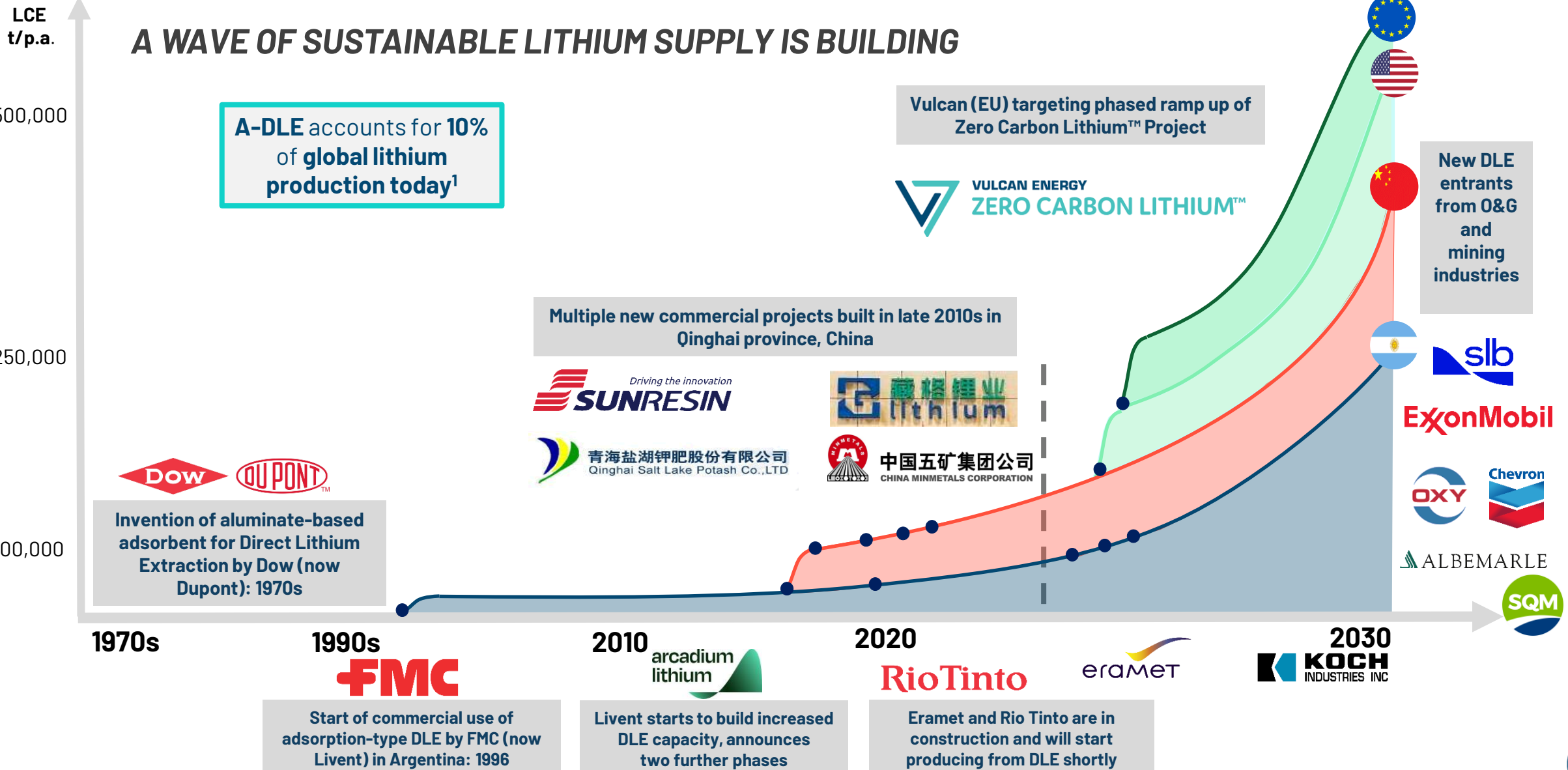


CHINA - ZANGGE MINERAL 10,000 TPA LCE



COMMERCIAL LITHIUM PRODUCTION FROM A-DLE GROWING EXPONENTIALLY

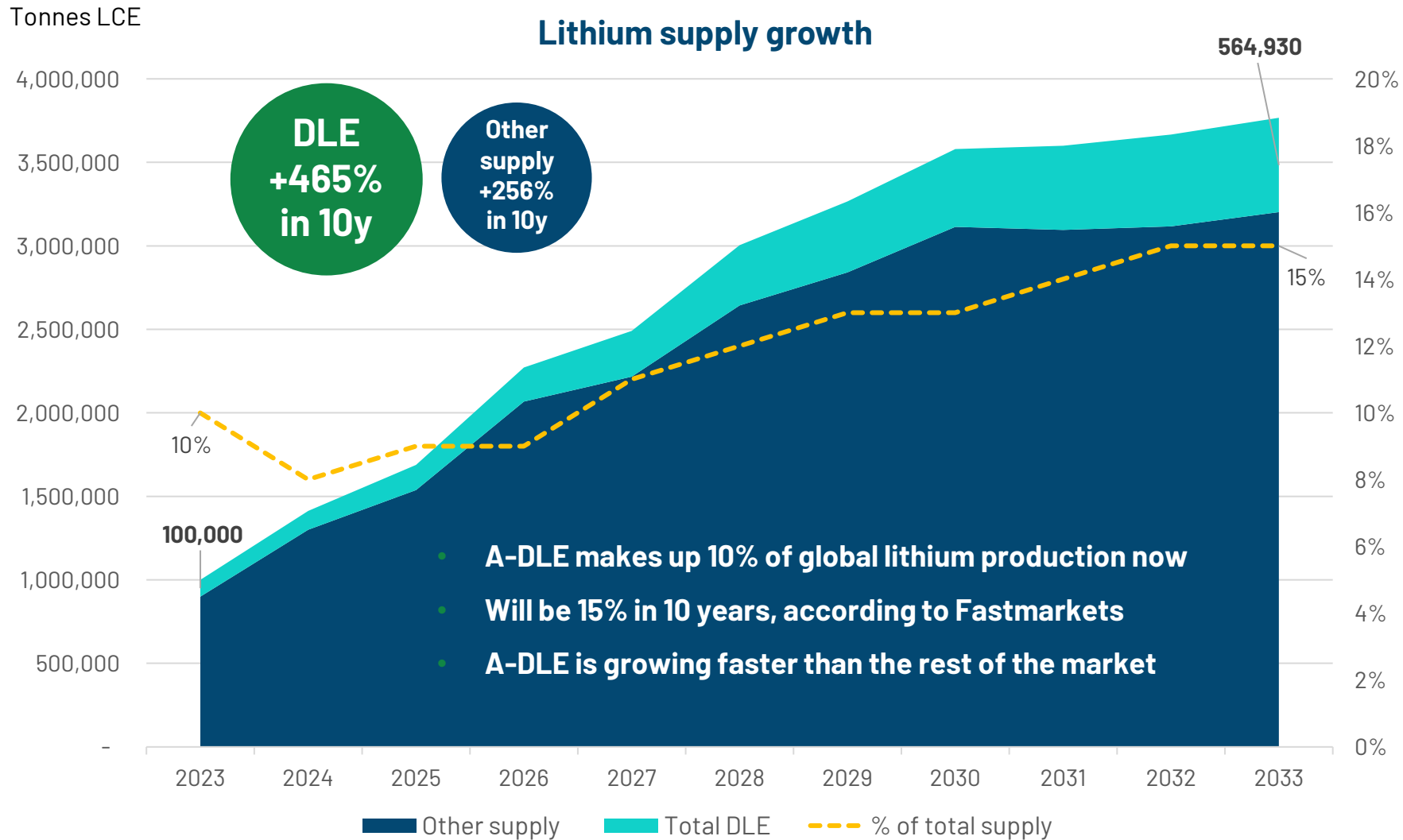
A WAVE OF SUSTAINABLE LITHIUM SUPPLY IS BUILDING



Note(s): ¹This graph is intended to illustrate the increasing commercial usage of DLE worldwide. The data is taken from the public sources and no warranty is given for the correctness of the data. The future data is subject to change at any time due to external factors and should be read, mutatis mutandis, with the forward-looking statements disclaimer.



DLE FORECAST TO GROW QUICKER THAN OTHER LITHIUM SUPPLY



Source: Fastmarkets



Fastmarkets is one of the most trusted cross-commodity price reporting agency (PRA) in the agriculture, forest products, metals and mining, and new generation energy markets.



GLOBAL OPPORTUNITY FOR VULSORB®



- Strong growth in A-DLE forecast, ca. 19% CAGR globally.
- Wide geographic spread of lithium in brines, usually associated with large-scale energy infrastructure.
- Increased focus on **scale, cost of production, sustainability** and **supply chain security** in lithium industry will favour deployment of VULSORB®.

- Areas of interest for VULSORB®:**
- **Europe:** Upper Rhine Valley Brine Field in Germany/France; northern Germany; Italy; eastern Europe.
 - **Americas:** Lithium triangle in Argentina, Chile, Bolivia; Arkansas, Utah in the USA; Alberta in Canada.
 - **Asia/Australasia:** Qinghai in China, Australia.
 - **Africa:** North Africa, including Algeria.

ENVIRONMENT, SOCIAL, GOVERNANCE



EMPOWERING A SUSTAINABLE TOMORROW

Social

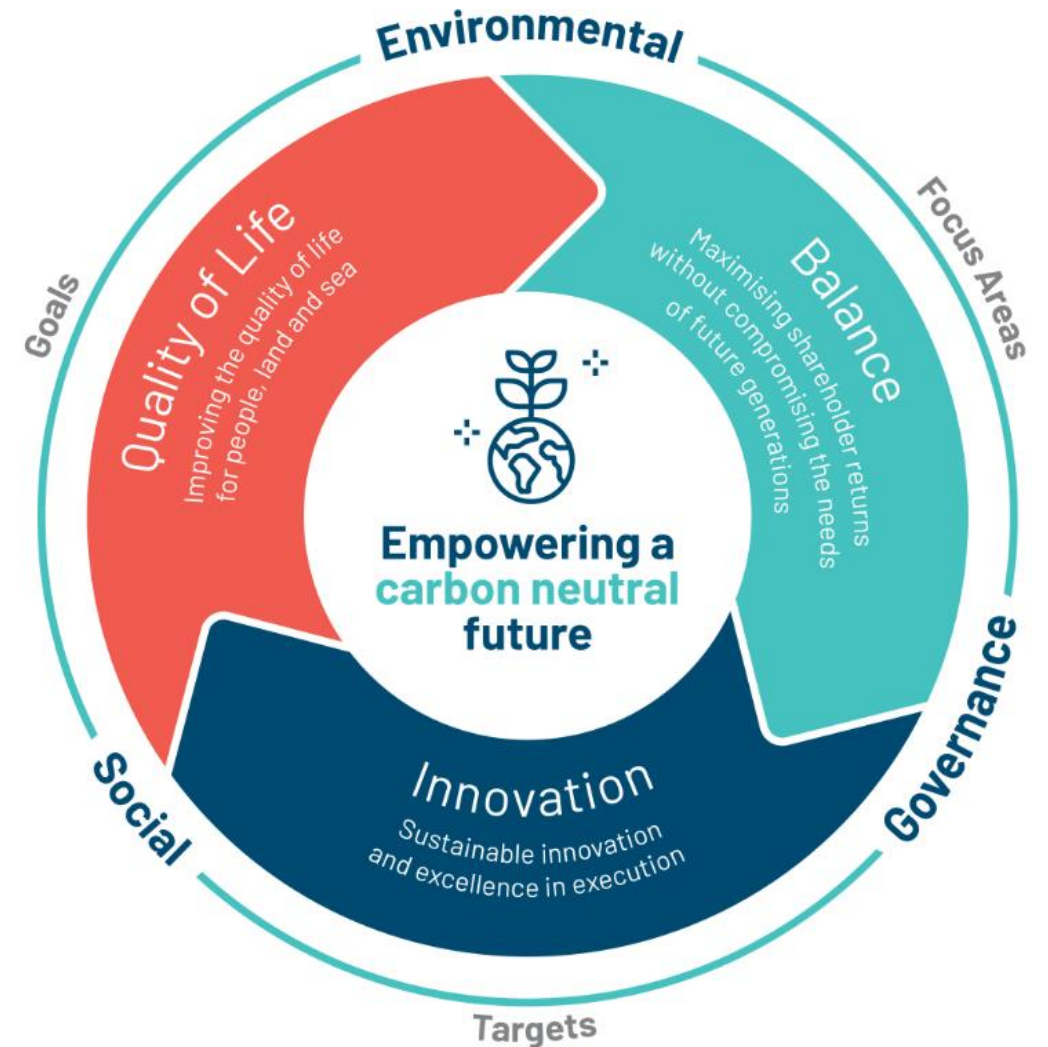
- **Strong local employment opportunities.**
- **Renewable electricity & heating:** potential to positively affect ca. 90,000 people⁽¹⁾.
- Carbon neutral heat contributing to **Europe's energy security** and **urban decarbonisation targets**.
- Project developed in **cooperation with local communities, to benefit local communities.**

Governance

- ESG performance **KPIs for leadership & employees** linked to compensation schemes.
- Strong focus on **equity, inclusion, diversity, health, safety and wellbeing** in the workplace.
- **OneVulcan** culture across international borders.

Environmental

- Decarbonisation of **lithium production and transport** (direct via adsorption process and indirect via conversion from ICE to BEV⁽²⁾).
- **Renewable power:** sold to the grid.
- Best in class **environmental credentials:** EP4 and IFC⁽³⁾
Principles aligned and climate change resilient.



Notes: 1. Based on the average per capita heat consumption in Germany of 6,200kWh (<https://www.destatis.de/>)
 2. Internal Combustion Vehicle (ICE), Battery Electric Vehicle (BEV)
 3. Equator Principles 4 and International Finance Corporation

ESG HIGHLIGHTS



“Low Risk” ESG Rating, best in class among top industry players

Ranked #11 out of 578 Chemicals industry peers⁽¹⁾



Significant number of indirect jobs estimated to be created, linked to the energy transition, decarbonisation and electrification of transport



Avoided ca. 6.5kT CO₂ eq. in 2023 through Natürlich Insheim renewable power plant⁽²⁾



2024 updated Minviro Ltd ISO lifecycle assessment; climate change impact quantified as -2.0 kg CO₂ eq. per kg LiOH.H₂O⁽³⁾



ESG linked team and individual KPIs and 50% female representation on the Board



Certified Carbon Neutral International Organisation from 2021⁽⁴⁾



Project deemed low environmental impact by local authorities, supported by Environmental Social Impact Assessment with ERM



UNGC Member, TNFD Forum Member and VCMI Stakeholder Forum Member

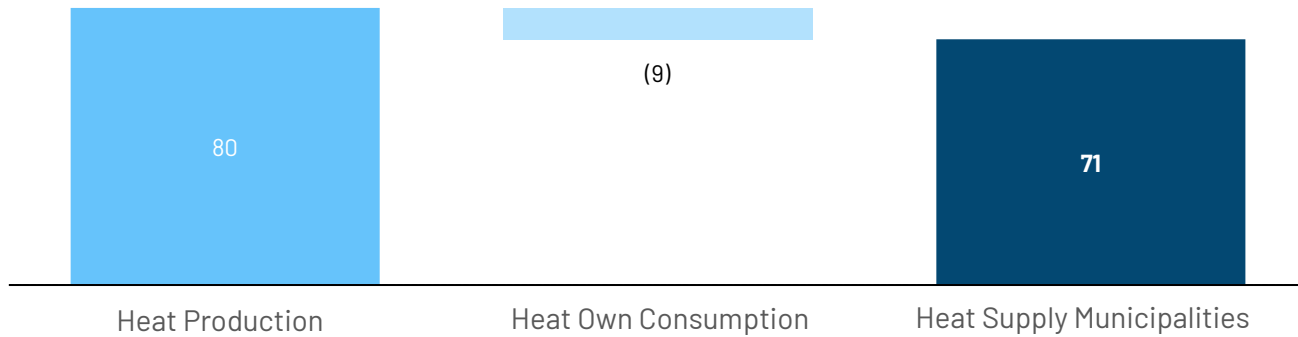
Note(s): ¹ <https://www.sustainalytics.com/esg-rating/vulcan-energy-resources-ltd/200802960/>; ² based on official feed-in numbers from grid operator and calculated with the latest local electricity mix emission factor; ³ Data in Vulcan's 2023 Sustainability Report; ⁴ Vulcan Group is certified as a carbon neutral organisation for 2022 under the Climate Active and Climate Impact Partners certifications



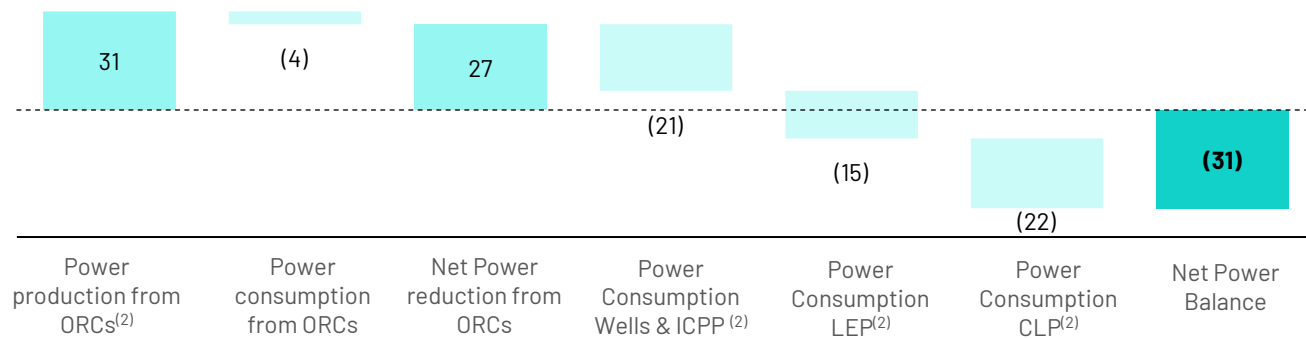
PHASE ONE ENERGY BALANCE: NET POSITIVE PRODUCER OF RENEWABLE ENERGY¹



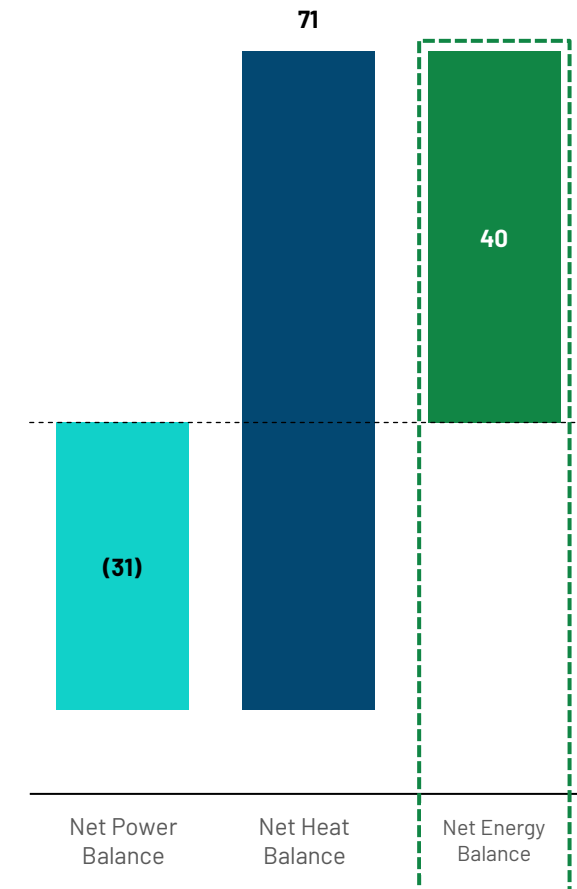
Heat Balance (MW)



Power Balance (MW)



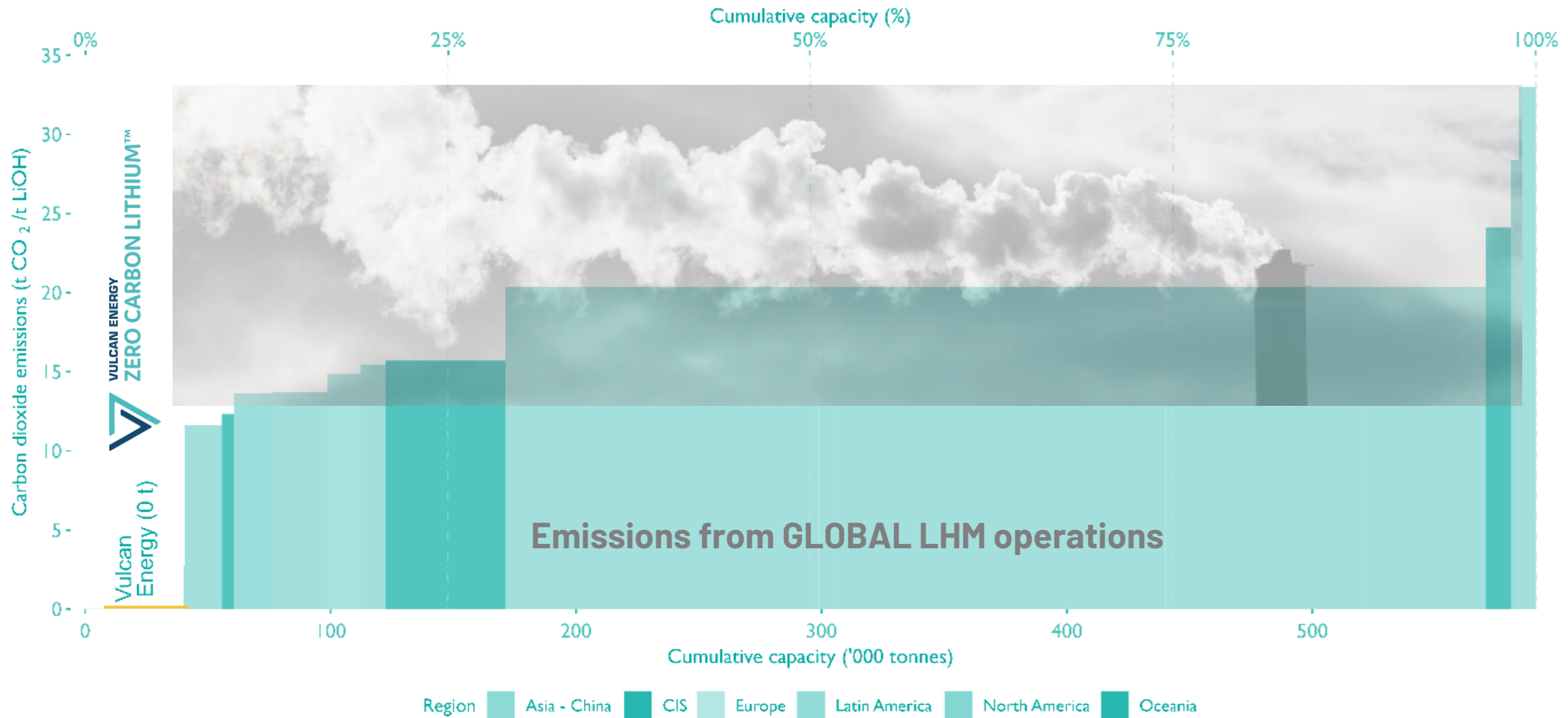
Net Energy Balance (MW)



Note(s): ¹ Vulcan's Phase One is a net consumer of power, and a net producer of heat. The overall positive energy balance is a net effect of these two different types of energy. Source 16 Nov 23 Vulcan Bridging Study
² Organic Rankine Cycle (ORC), Interconnecting Pipeline & Power (ICPP), Lithium Extraction Plant (LEP), Central Lithium Plant (CLP)

LARGE DECARBONISATION POTENTIAL VS LITHIUM SUPPLY

- Vulcan is developing the first and only carbon neutral lithium project in the world.¹
- Zero fossil fuels used directly in lithium production process.
- Globally significant decarbonisation opportunity through Vulcan's ZERO CARBON LITHIUM™ Project.
- **Millions of tonnes of CO₂ avoidance and abatement potential during the Project's life.**



Note(s): ¹Sources: Fastmarkets projection for industry. Vulcan CO₂ value provided by Minviro LCA, updated for Bridging Study figures. The CO₂ assessment is a cradle-to-gate study. The climate change impact for the lithium hydroxide monohydrate product for the assumptions described above is -1.5 kg CO₂ eq. per kg LiOH·H₂O using ISO-compliant methods for LCAs. Vulcan has amended to net zero for the purposes of the presentation, to clarify that this is not a carbon removal project. Vulcan is not aware of any other net zero carbon, zero fossil fuels lithium projects either in operation or development.

VULCAN'S PHASE ONE 10-YEAR TARGET GHG AVOIDANCE PROFILE



GHG Avoided Emissions

Absolute Avoided Emissions (10 years)

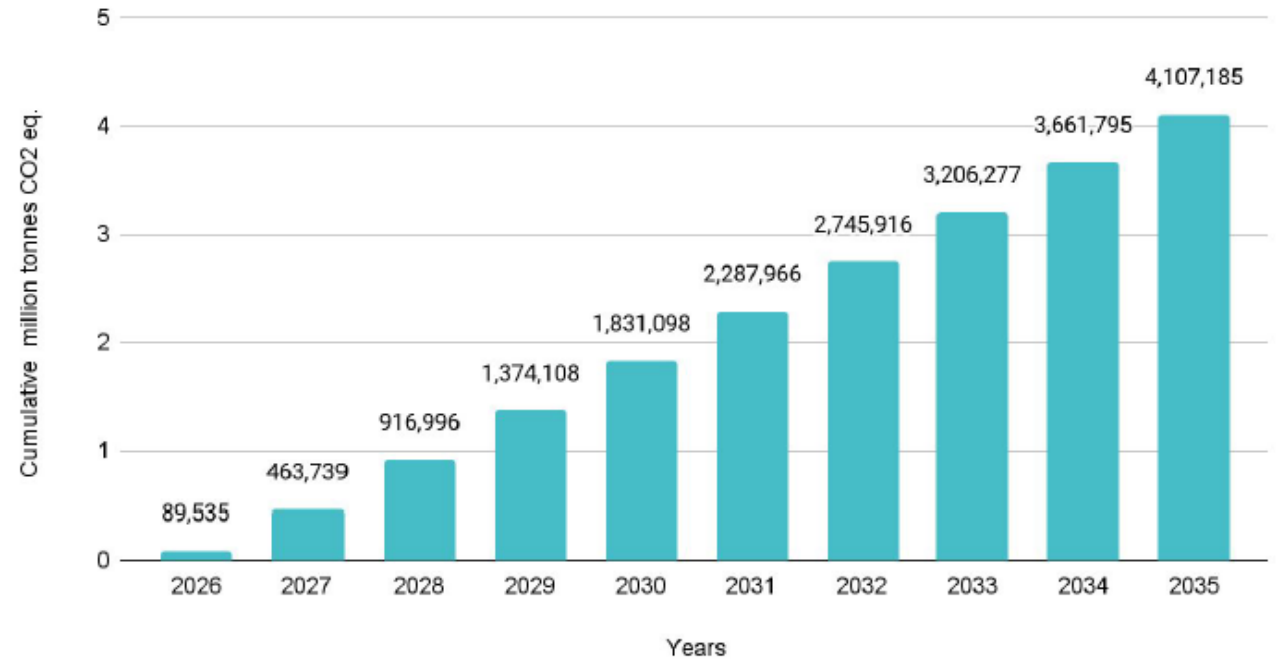
Accumulated GHG emission (tonnes CO ₂ eq.)	=	Reference emissions (tonnes CO ₂ eq.)	-	Project emissions (tonnes CO ₂ eq.)
4,107,185	=	2,678,606	-	-1,428,579

Relative Avoided Emissions

Relative GHG emission avoidance (%)	=	Accumulated GHG emission avoidance CO ₂ eq.	/	Reference emissions (tonnes CO ₂ eq.)
153.3%	=	4,107,185	/	2,678,606

Source: Minviro, Preliminary Results: Vulcan Energy Resources GHG Avoidance (20/03/2024)

Cumulative Absolute Avoided GHG Emissions Over 10 Years



The target absolute avoided impact over 10 years from 2026 to 2035 more than 4.1 million tonnes CO₂ eq.



PART OF THE LOCAL COMMUNITY

- Vulcan has a comprehensive **Stakeholder Engagement Plan** that adheres to international best practice to ensure communication is relevant, understandable and delivered effectively.

- Some community engagement activities to date include:
 - Multiple **communication channels** across media, online, in person and press.
 - **Citizen dialogue events**: Regional Roadshow with Info-Truck/ Trailer, Citizens' information events in cooperation with local community.
 - Stakeholder dialogue/ technical discussions: participation workshops, presentations to the individual **community councils**.
 - Implementation of Whistleblower Policy and externally managed Grievance Mechanisms to ensure feedback is accurate, actions are appropriate, and stakeholders are always treated respectfully.

- Majority of local city councils are voting in favour of Vulcan's work programme for Phase One, showing increasing understanding of local benefits.

3 Info-Centre Locations

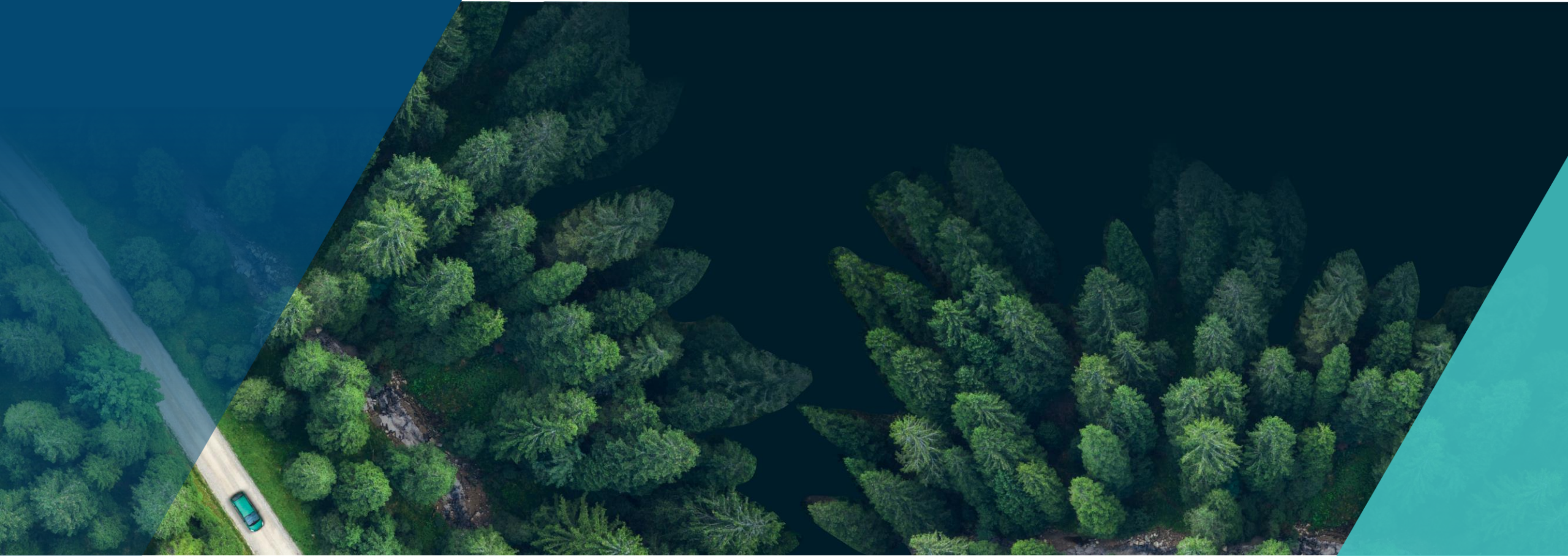
Landau

Karlsruhe

Insheim



FURTHER PHASES PIPELINE



THE LARGEST LITHIUM RESOURCE IN EUROPE IN THE UPPER RHINE VALLEY

Vulcan's URVBF consists of a consistent sedimentary geothermal lithium reservoir across 16 licences covering a total area of 1,771 km² and 300 km long.

There are currently **36 geothermal plants** operating in Germany and **42 active projects**.² The federal government aims to reach 100 plants by 2030.³

URVBF area is a **mature, producing field**, with **>1,000 oil & gas and 24 deep geothermal wells** already drilled in the URV.

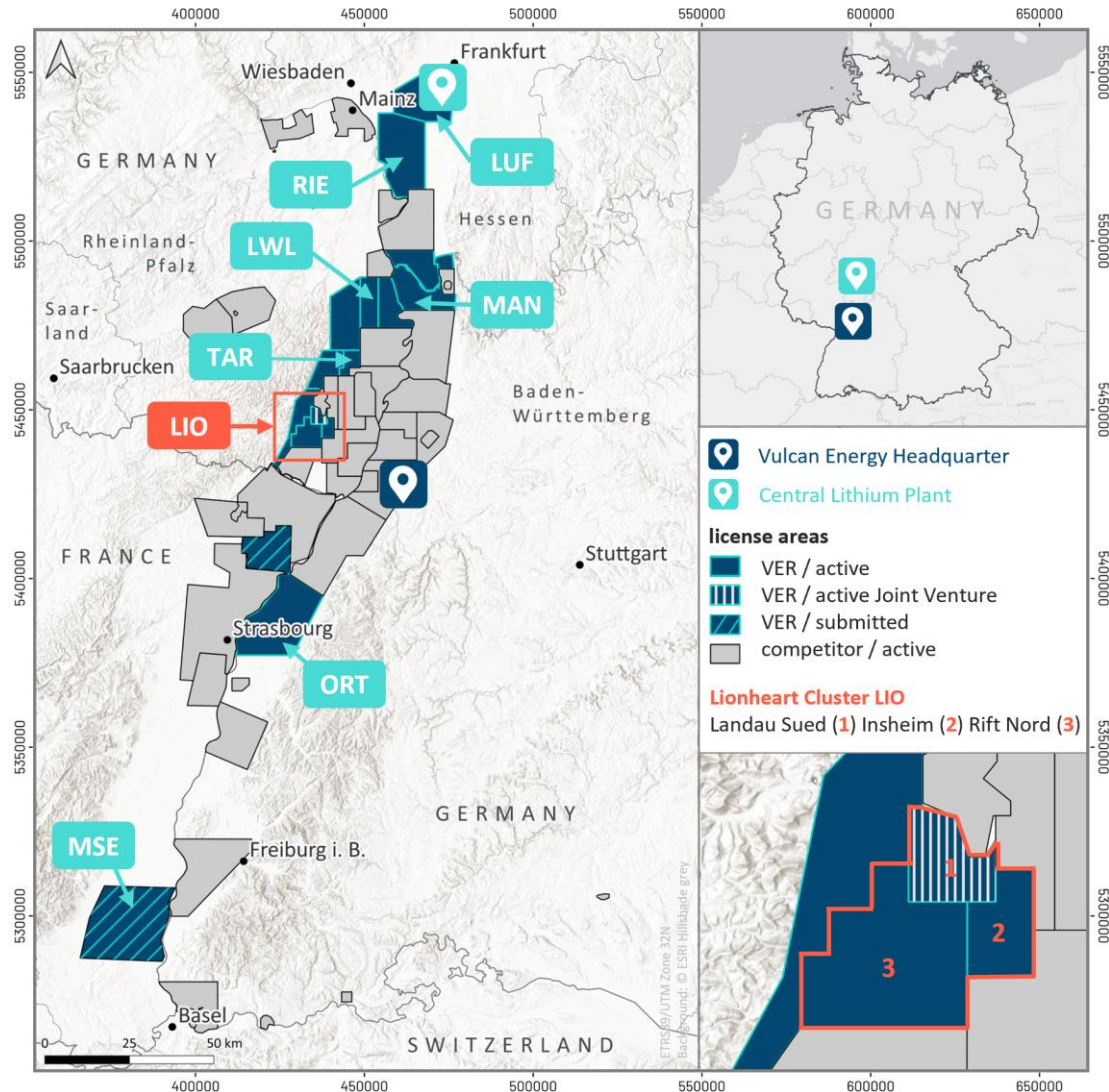


Note(s): ¹ According to public, JORC-compliant data

² Bundesverband Geothermie

³ Geothermie_Eckpunktepapier_ressortabgestimmt (bmwk.de);

LARGE PORTFOLIO ACROSS THE URV – FUTURE PHASE DEVELOPMENTS



Vulcan is developing multiple development centres beyond Phase One, across the Upper Rhine Valley Brine Field (URVBF), which can grow in a modular approach as the market grows.

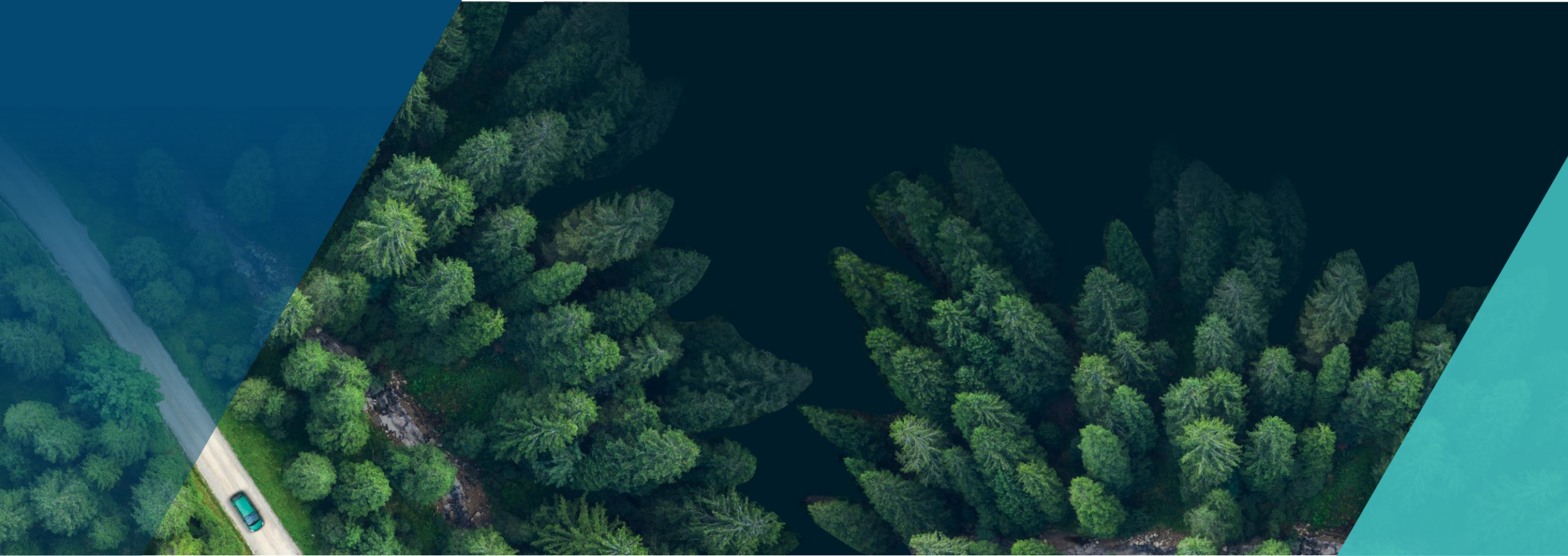
Phased growth approach, starting from core of field where Vulcan already owns production/re-injection geothermal wells in operation.

Phase One: Lionheart (LIO) upstream centre currently being developed for 24 ktpa lithium hydroxide production and municipal heat.

Phase +: Multiple project centres being developed according to lithium and heat market demands (from North to South).

- **Luftbrücke LUF:** Heat provision for industrial customer (TBA).
- **Ried RIE:** Heat provision for Opel-Stellantis.
- **Mannheim MAN:** Heat provision for MVV, lithium.
- **Ludwigsland LWL:** Heat provision for industrial customer (TBA), lithium.
- **Taro TAR:** Municipal heat provision (TBA), lithium.
- **Ortenau ORT:** Municipal heat provision (TBA), lithium.
- **Mulhouse MSE:** Heat provision for Stellantis, lithium.

APPENDICES





APPENDIX 1: DISCLAIMER

No investment or financial product advice. This Presentation, and the information provided in it, does not constitute, and is not intended to constitute, financial product or investment advice, or a recommendation to acquire Vulcan Shares, nor does it constitute, and is not intended to constitute, accounting, legal or tax advice. This Presentation does not, and will not, form any part of any contract for the acquisition of Vulcan Shares. This Presentation has been prepared without taking into account the objectives, financial or tax situation or particular needs of any individual. Before making an investment decision (including any investment in Vulcan Shares or Vulcan generally), prospective investors should consider the appropriateness of the information having regard to their own objectives, financial and tax situation and needs, and seek professional advice from their legal, financial, taxation or other independent adviser (having regard to the requirements of all relevant jurisdictions). Vulcan is not licensed to provide financial product advice in respect of an investment in shares. Any investment in any publicly-traded company, including Vulcan, is subject to significant risks of loss of income and capital.

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Effect of rounding. A number of figures, amounts, percentages, estimates, calculations of value and fractions in this Presentation are subject to the effect of rounding. Accordingly, the actual calculation of these figures may differ from the figures set out in this Presentation.

APPENDIX 1: DISCLAIMER CONT.

Ore Reserves and Mineral Resources Reporting. It is a requirement of the ASX Listing Rules that the reporting of ore reserves and mineral resources in Australia comply with the Joint Ore Reserves Committee's Australasian Code for Reporting of Mineral Resources and Ore Reserves ("**JORC Code**"). Investors outside Australia should note that while ore reserve and mineral resource estimates of the Company in this document comply with the JORC Code (such JORC Code-compliant ore reserves and mineral resources being "Ore Reserves" and "Mineral Resources" respectively), they may not comply with the relevant guidelines in other countries and, in particular, do not comply with (i) National Instrument 43-101 (Standards of Disclosure for Mineral Projects) of the Canadian Securities Administrators (the "Canadian NI 43-101 Standards"); or (ii) subpart 1300 of Regulation S-K under the US Securities Act of 1933, as amended (the "Securities Act"), which governs disclosures of mineral reserves in registration statements filed with the US Securities and Exchange Commission ("SEC"). Information contained in this Presentation describing mineral deposits may not be comparable to similar information made public by companies subject to the reporting and disclosure requirements of Canadian or US securities laws. On 31 October 2018, the SEC adopted amendments to its disclosure rules to modernise the mineral property disclosure requirements for issuers whose securities are registered with the SEC under the US Exchange Act of 1934, as amended (the "**Exchange Act**"). These amendments became effective 25 February 2019, with compliance required for the first fiscal year beginning on or after 1 January 2021. Under these amendments, the historical property disclosure requirements for mining registrants included in Industry Guide 7 under the Securities Act were rescinded and replaced with disclosure requirements in subpart 1300 of Regulation S-K. As a result of the adoption of subpart 1300 of Regulation S-K, the SEC's standards for mining property disclosures are now more closely aligned to the JORC Code's requirements. For example, the SEC now recognises estimates of "measured mineral resources", "indicated mineral resources" and "inferred mineral resources." In addition, the SEC has amended its definitions of "proven mineral reserves" and "probable mineral reserves" to be "substantially similar" to the corresponding standards under the JORC Code. However, despite these similarities, SEC standards are still not identical to the JORC Code. Accordingly, investors are cautioned that there can be no assurance that the reserves and resources reported by the Company under the JORC Code would be the same had it prepared its reserve or resource estimates under the standards adopted under subpart 1300 of Regulation S-K.

Financial data. All monetary values expressed as "\$" or "A\$" in this Presentation are in Australian dollars, unless stated otherwise. All monetary values expressed as EUR or € in this Presentation are in Euros, unless stated otherwise. All monetary values expressed as "US\$" in this Presentation are in US dollars, unless stated otherwise. The assumed exchange rate to convert Euros into Australian dollars or US dollars (as applicable) is shown in the footnote to each respective slide. In addition, prospective investors should be aware that financial data in this Presentation includes "non-IFRS financial information" under ASIC Regulatory Guide 230 'Disclosing non-IFRS financial information' published by ASIC and also 'non-GAAP financial measures' within the meaning of Regulation G under the U.S. Securities Exchange Act of 1934. The non-IFRS financial measures do not have standardised meanings prescribed by Australian Accounting Standards and, therefore, may not be comparable to similarly titled measures presented by other entities, nor should they be construed as an alternative to other financial measures determined in accordance with Australian Accounting Standards. Although Vulcan believes the non-IFRS financial information (and non-IFRS financial measures) provide useful information to readers of this Presentation, readers are cautioned not to place any undue reliance on any non-IFRS financial information (or non-IFRS financial measures). Similarly, non-GAAP financial measures do not have a standardised meaning prescribed by Australian Accounting Standards or International Financial Reporting Standards and therefore may not be comparable to similarly titled measures presented by other entities, nor should they be construed as an alternative to other financial measures determined in accordance with Australian Accounting Standards or International Financial Reporting Standards. Although Vulcan believes that these non-GAAP financial measures provide useful information to readers of this Presentation, readers are cautioned not to place undue reliance on any such measures.

Technical information. 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') and also released the Bridging Study Announcement 16 November 2023 ("Bridging Study Announcement"). This document 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 in the Bridging Study 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 will be achieved. This presentation uses the results of the DFS and the Bridging Study as a basis to update its Mineral Resources and Ore Reserves, 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 presentation 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.

Funding Strategy. To achieve the range of outcomes indicated in the DFS and the Bridging Study, additional funding will be required. Investors should note that there is no certainty that Vulcan will be able to raise the amount of funding when needed. It is also possible that such funding may only be available on terms that may be dilutive to or otherwise affect the value of Vulcan's existing shares. It is also possible that Vulcan could pursue other financing strategies such as a partial sale or joint venture of the Project. If it does, this could materially reduce Vulcan's proportionate ownership of the Project.

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APPENDIX 2: COMPETENT PERSON STATEMENT

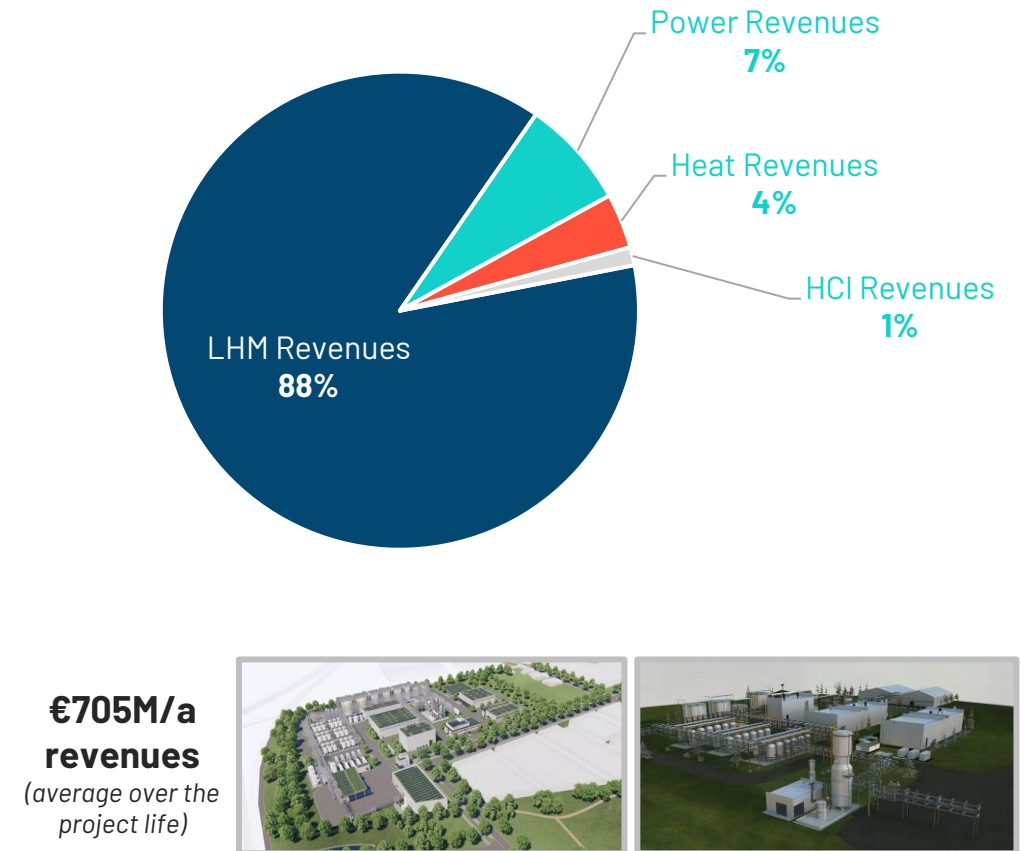
The information in this presentation that relates to estimates of Mineral Resources and Ore Reserves is extracted from the following ASX announcement: "Zero Carbon Lithium™ Project Phase One Bridging Engineering Study", released on 16 November 2023. The above announcement is available to view on Vulcan's website at www.v-er.eu.

Vulcan confirms that, in respect of the estimates of Mineral Resources and Ore Reserves included in this presentation:

- (a) 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;
- (b) the form and context in which the Competent Persons' findings are presented in this presentation have not been materially modified from the original market announcement; and
- (c) all material assumptions underpinning the production targets (and the forecast financial information derived from such production targets) included in this presentation continue to apply and have not materially changed.

TARGET PROJECT ECONOMICS¹: PHASE 1 BRIDGING ENGINEERING STUDY

Base Case Financials Bridging Engineering Study	
Revenues €M/a	705
EBITDA €M/a	521
EBITDA margin %	74%
NPV pre-tax €M	3,906
NPV post-tax €M	2,566
IRR pre-tax %	27.8%
IRR post-tax %	22.5%
Payback in years	4
Total Capex €M	1,399
Avg Opex² €/t LHM	4,022
Avg LHM price 10y forecast³ €/t	€23,865
Avg LHM price forecast ³ €/t	€32,050



¹ Vulcan Energy's Phase One Bridging Engineering Study. These are targets and may not be achieved. Please refer to the Forward-Looking Statement disclaimer in Appendix 1.

² OPEX is based on a production at designed capacity at 24,600t, excluding inflation, LHM and including an average power price over the project life.

³ The average forecast realised price per tonne of LHM is taking into consideration Fastmarkets long term price forecast (min 57.5% LiOH)(\$/kg, EU & US) and combining it with Vulcan's pricing concluded in offtake agreements which includes price floors and ceilings, fix prices, and price indexed on indexes like Fastmarkets.

Thank you

Questions?

Contact our media and investor relations team

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