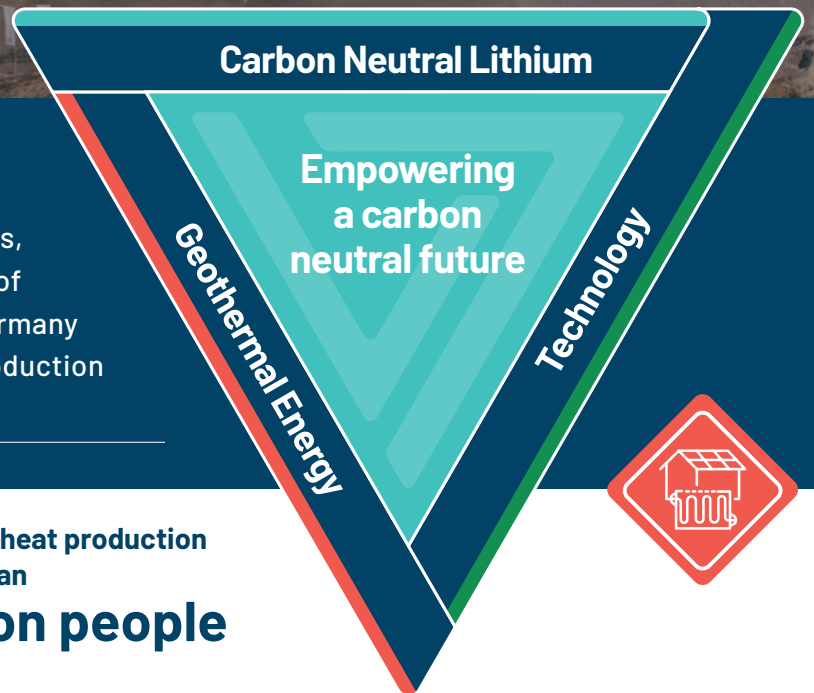




DECARBONISING INDUSTRY AND PROVIDING AFFORDABLE, BASELOAD RENEWABLE ENERGY FOR LOCAL COMMUNITIES

GEOHERMAL ENERGY

The Upper Rhine Valley region is in a particularly advantageous geological location: at a depth of around 3,600 meters, there is huge energy potential in the form of geothermal brine. Only a few regions in Germany offer such favorable conditions for the production of geothermal energy.



**275 GWh power
& 560 GWh heat**
Phase One capacity p. a.

Renewable heat production
for more than
1 million people
by 2030¹

VULCAN'S RESOURCE: THE UPPER RHINE VALLEY BRINE FIELD (URVBF)

- Vulcan holds 17 licences covering a total area of 2,234 km² across the 300 km long URVBF.
- The area is a mature, producing field, with >1,000 oil & gas and 24 deep geothermal wells already drilled in the URV.
- There are currently 36 geothermal plants operating in Germany and 42 active projects.²
- The market potential for geothermal heating in Germany is approximately 25% of total heat demand, according to the Fraunhofer Institute. This means unprecedented amounts of geothermal production needs to be built. The federal government has supported this with a target for geothermal energy capacity to be increased tenfold by 2030.³
- From Phase One, Vulcan aims to grow production in a progressive manner to meet the growing European renewable energy demand.

1

Climate Neutral

In contrast to fossil fuels, electricity and heat from geothermal energy are carbon neutral.

2

Reliable

Geothermal energy is available at all times, regardless of the weather and time of day.

3

Regional

Geothermal energy is available locally and is independent of imports.

**GEOHERMAL RENEWABLE ENERGY
IS AT THE HEART OF VULCAN'S
MISSION TO DELIVER A GREEN
ENERGY TRANSITION.**

www.v-er.eu

Natürlich Insheim GmbH

During 2023, the geothermal power plant Natürlich Insheim generated approximately 16 GWh of renewable energy. Natürlich Insheim will also deliver district heating in the future. This will allow the supply of carbon neutral heat to district heating for nearby municipalities and industry.



VULCAN'S 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.

PHASE ONE LIONHEART PLANNED HEAT AND POWER PRODUCTION

- Initially planned to produce mostly power, Vulcan's new geothermal plant will increase geothermal heat production to deliver to local communities through the district heating system over time.

| | 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 |

