

# EDEN GEOTHERMAL PROJECT

Deep Geothermal in Cornwall

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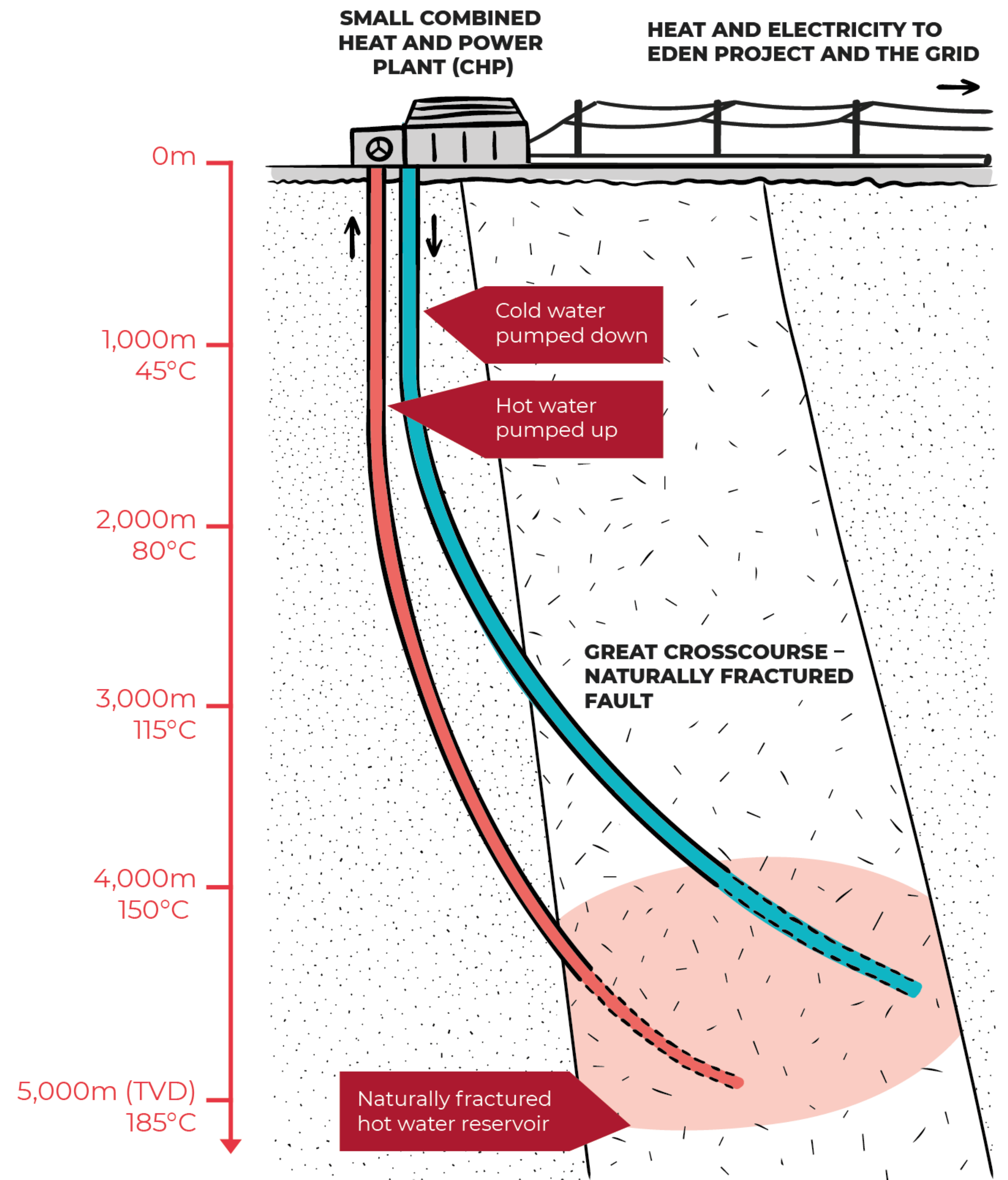


# The EGS concept at the Eden Project

The EGS concept at the Eden Project is a combination of the Hot Dry Rock concept and the Open System concept.

It relies on using natural geological structures within a hot fractured crystalline rock to provide pathways of enhanced permeability for the production of hot water.

The hot water will be used to provide direct heat and power to meet the demands of the Eden Project. The cooled water is then reinjected back into the ground.

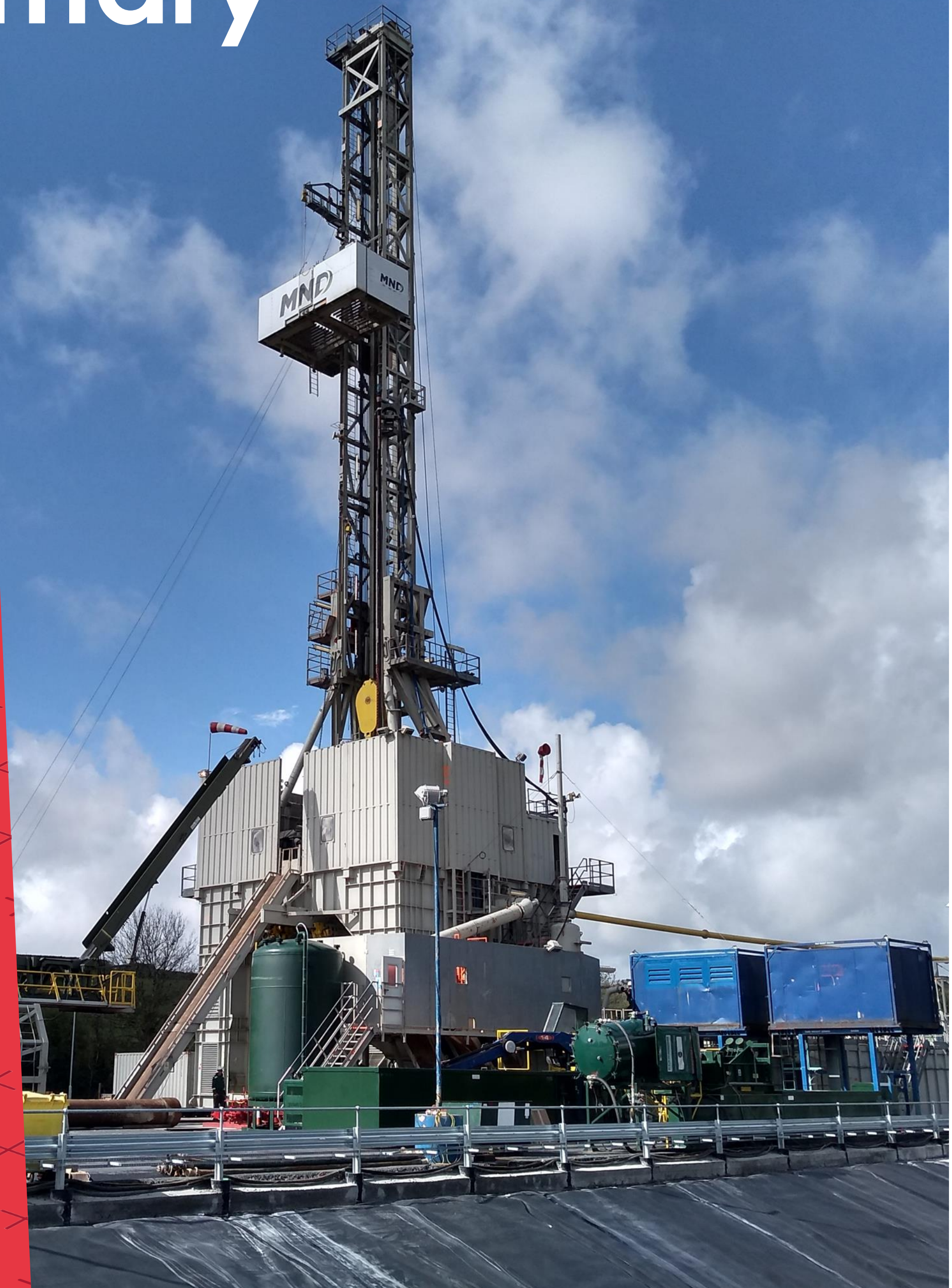




# Eden Deep Geothermal summary

## Outcome:

- Successful drilling of the longest deep geothermal well in the UK (>5,200 m MD) with no major technical issues or fishing;
- Carried out a series of well tests including an air-lift production test;
- Used a 6-station seismic network to monitor and control well testing operations to minimise seismic impact;
- Carried out an acid treatment to reduce near-wellbore impedance of the main flow zone using coiled tubing;
- Deployed 3,800 m of coaxial tubing, with an ESP, and ran a heat production demonstration.
- Improved understanding and risk mitigation in (i) drilling, (ii) seismicity, and (iii) geological uncertainty.





# Technical risks

- There are a few risks that impact the future development of deep geothermal energy in the UK:
- Understanding regional and local deep geology;
- Using geophysical surveys to locate target reservoir structures at depth prior to drilling;
- Improving the limitations to drilling deep deviated wells in fractured crystalline rock;
- Locating high permeability structures at depth;
- Controlling seismicity during reservoir development;
- Improving public perception and acceptance;







# The future?

- The UK needs successful projects to progress the sector.
- Development costs have to be reduced to improve commercial viability, especially drilling costs.
- Improved government incentivisation for private investment.
- Improvements to facilitate power export to the Grid.
- Public relations and perception needs to promote the benefits of geothermal energy.
- Deep geothermal requires a diverse skillset.
- Enthusiastic young graduates with expertise in a diverse range of skills are required to take this technology forward.
- The oil and gas sector should be encouraged to invest in geothermal energy and to transition their skill base.





# Eden Geothermal Limited

Thank you  
for listening

