Contact Energy's Tauhara Geothermal Construction Project

27 July 2023 Craig Woolacott – Contact's Project Manager



Transitioning New Zealand to

Lower Carbon Emission Electricity

A presentation for the 2023 New Zealand Geothermal Week

27 July 2023 Craig Woolacott – Contact's Project Manager





At Contact, we are committed to building a better Aotearoa New Zealand by leading the country's decarbonisation.

. We are always looking at ways to reduce our emissions and meet our ambitious target of being net zero by 2035.



As part of this, we're developing new renewable electricity projects throughout the country. In 10 years, we have increased our renewable energy portfolio from 60% to almost 90%.

 Geothermal power stations are a key part of Aotearoa's electricity generation system as they generate renewable, base load electricity.



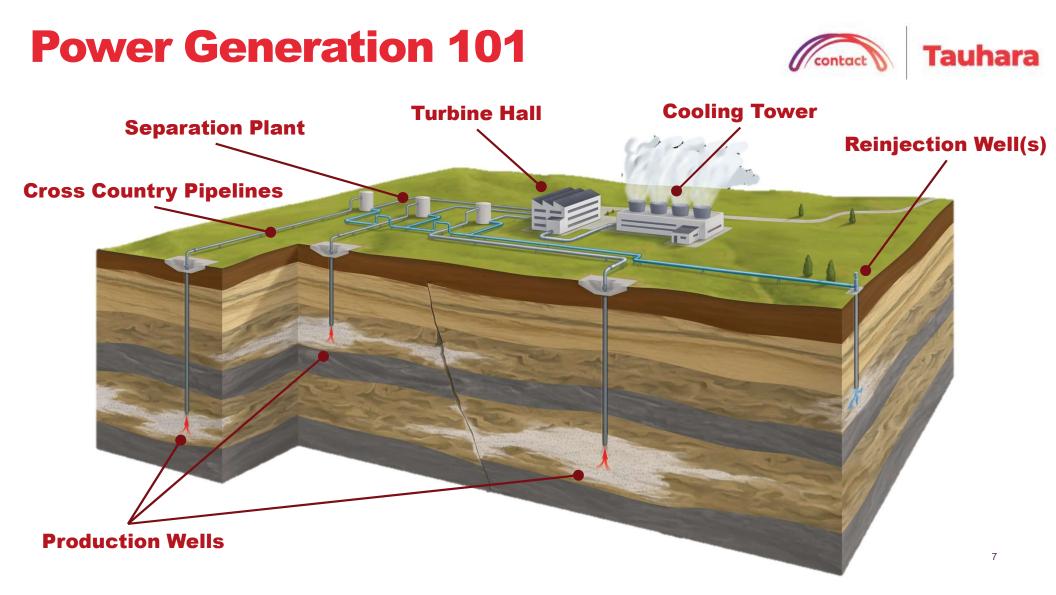
 We own and operate five geothermal power stations in the Taupō region, generating roughly 40% of geothermal electricity in New Zealand.

 To reach low carbon targets, we're using innovation like NCG reinjection at our Te Huka power station.



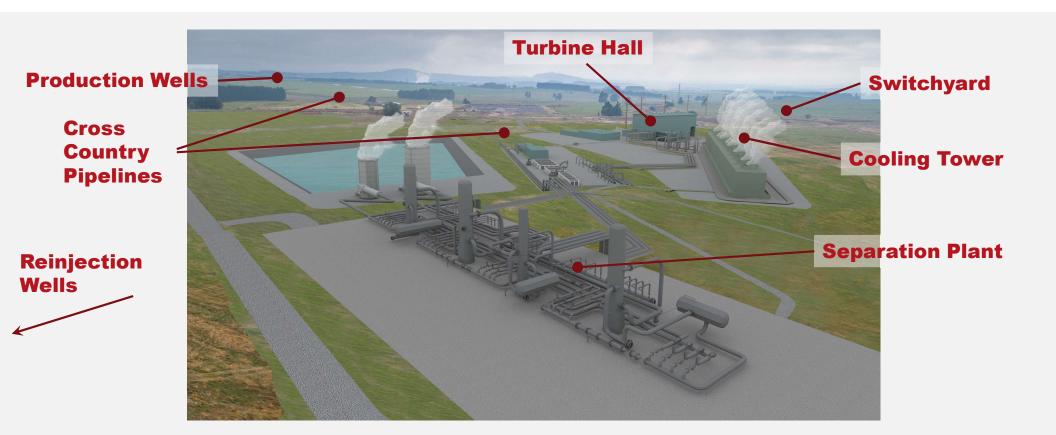
 Te Huka now operates as our first net zero geothermal power station - eliminating up to 10,000t/yr of carbon dioxide and hydrogen sulphide emissions, while also reducing noise from the power plant.

 We are inspired and committed by making tangible progress in a low carbon energy future.



Tauhara





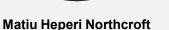
Our unique relationship with tangata whenua



Contact Energy acknowledges the tangata whenua of these lands and have developed a positive and respectful relationship with Ngati Tuwharetoa and Tauhara hapu.

There are Tauhara Hapu Representatives on the project who are part of the team. Matiu and Jimmy support wellbeing through the workforce and form part of the project Cultural Discovery Protocol.







Whakaeke James Ritete

Contractors we're working with



There are different project fronts relative to the various scopes of work



MBC and others	Transpower 220kV grid connection Unison 33kV network connection	Sumitomo Fuji Electric, Beca, Naylor Love, Dialog Fitzroy, Wells, & others	United Civil Steiner and Moses Warner Construction Cassidy Construction Culham Engineering, Unison, Entec, JLE	Various Vendors and suppliers	Jacobs SP Engineering
Drilling	Grid and Network Connections	Power station	Steamfield (incl pipelines, separation plant, pumps and vents, buildings, EC&I, 11kV)	Steamfield (bulk materials and equipment)	Steamfield (detailed design)

Tauhara development key facts

New Zealand's premium renewable energy project, located within 10 km of Taupo supports a key regional economy

Environmental benefit



Low carbon resource 500,000 t_cCO² removed Or 220,000 petrol cars off the road



Estimated MW (net export to grid) **174MW**



Estimated plant generation ~1,420GWh

(3.5% of NZ's current generation)

Restoration of stormwater pond, gully systems and wetlands

- 55,000 Native trees planted

- Drains the 120 hectare power station site, screens the power station, steamfield and wellpads

Initiating wider geothermal field projects to protect, enhance or restore areas of high ecological value, including geothermal vegetation areas.

Tauhara

We aim to leave it, better than we found it





Tauhara development key facts

New Zealand's premium renewable energy project, located within 10 km of Taupo supports a key regional economy

Regional spending



Estimated forward project expenditure **\$780m**



Total peak estimated construction jobs 620



Investment into local economy **\$225m**

The influx of construction staff benefit **Motels Backpackers B&Bs Cafes Restaurants Pubs Supermarkets Tourism Local shops**























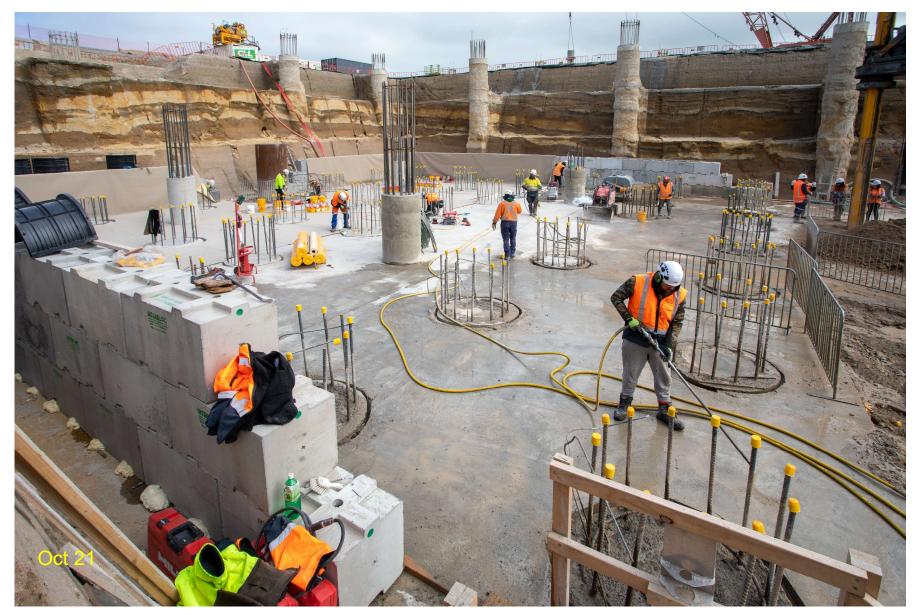
March 21



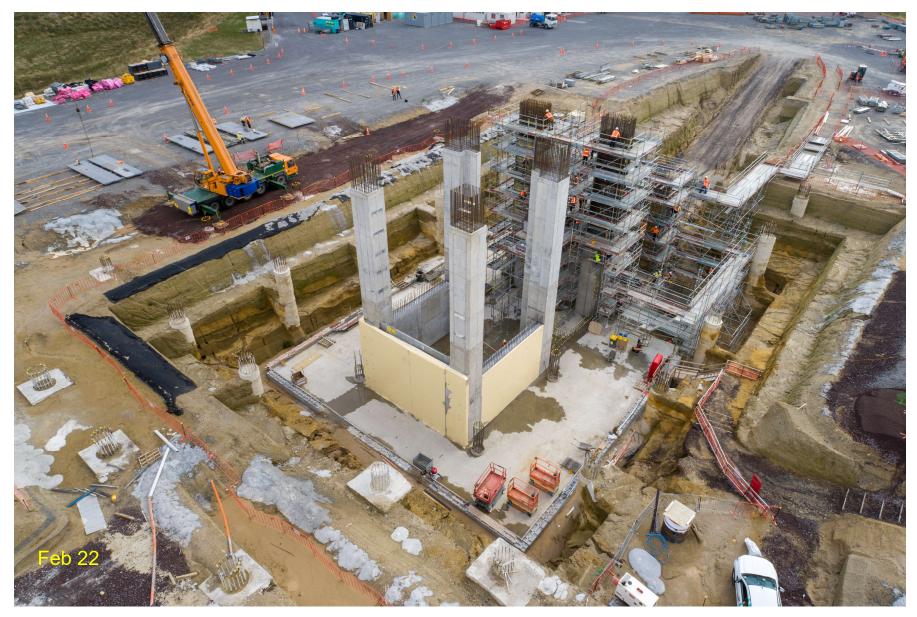












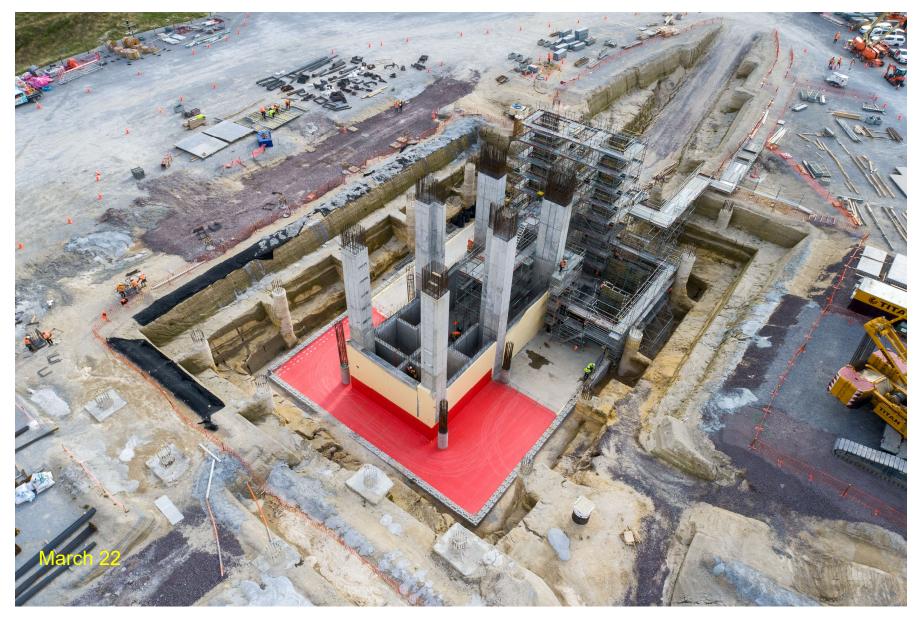
























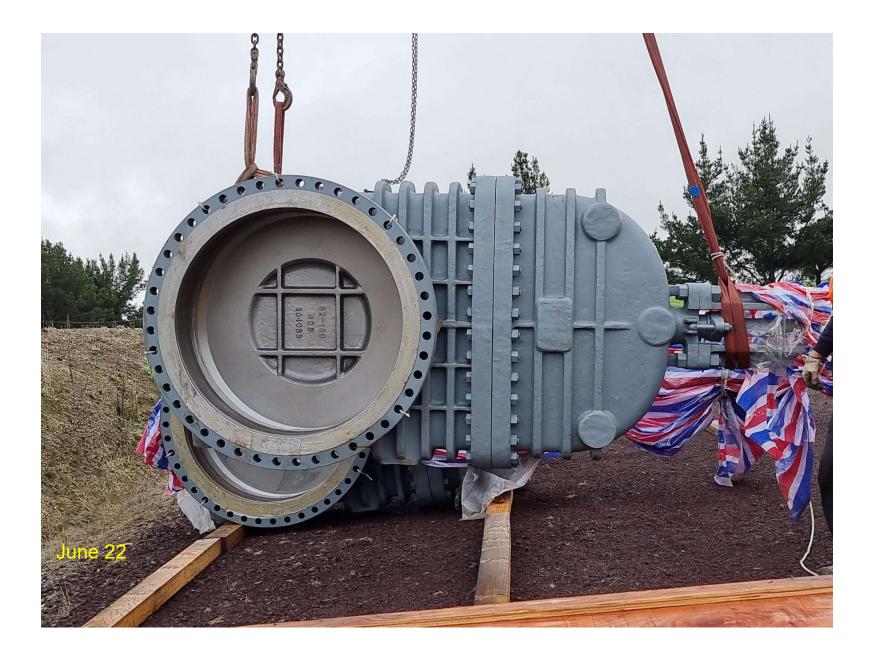






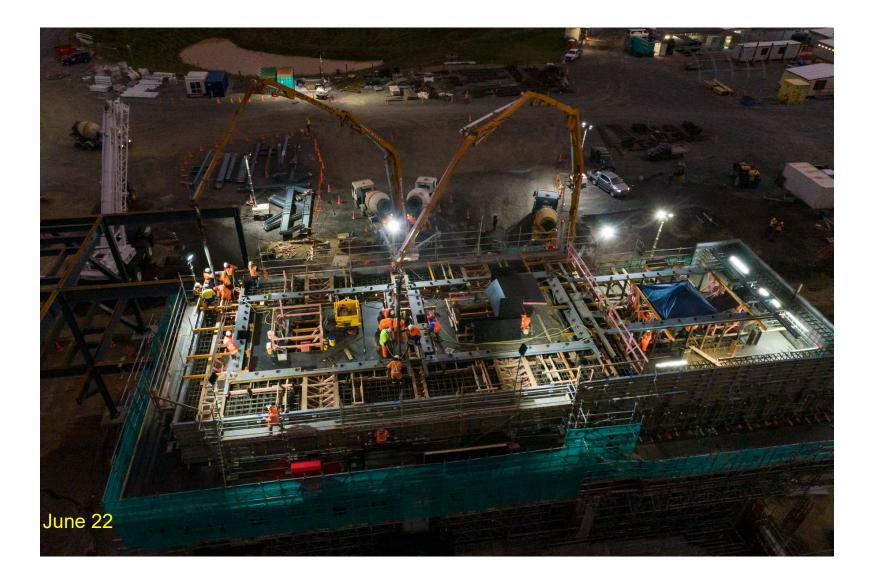


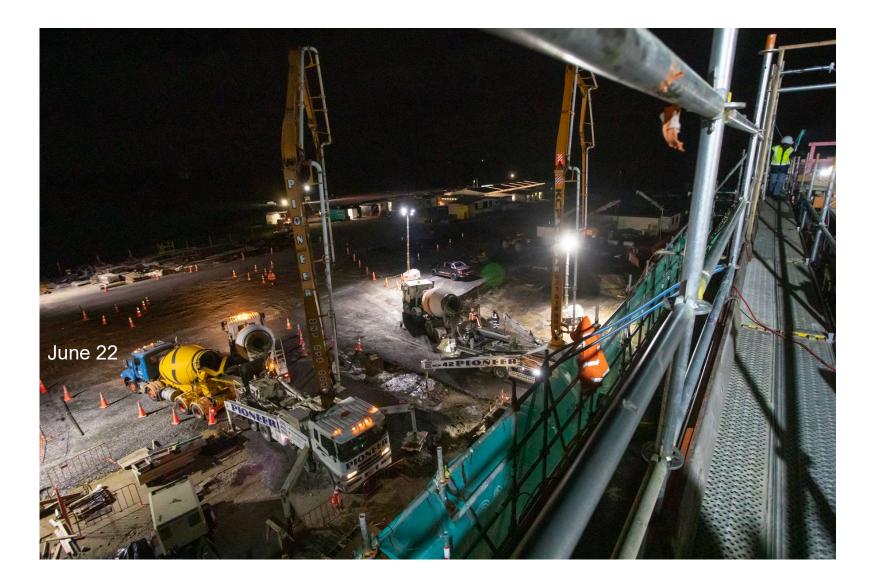


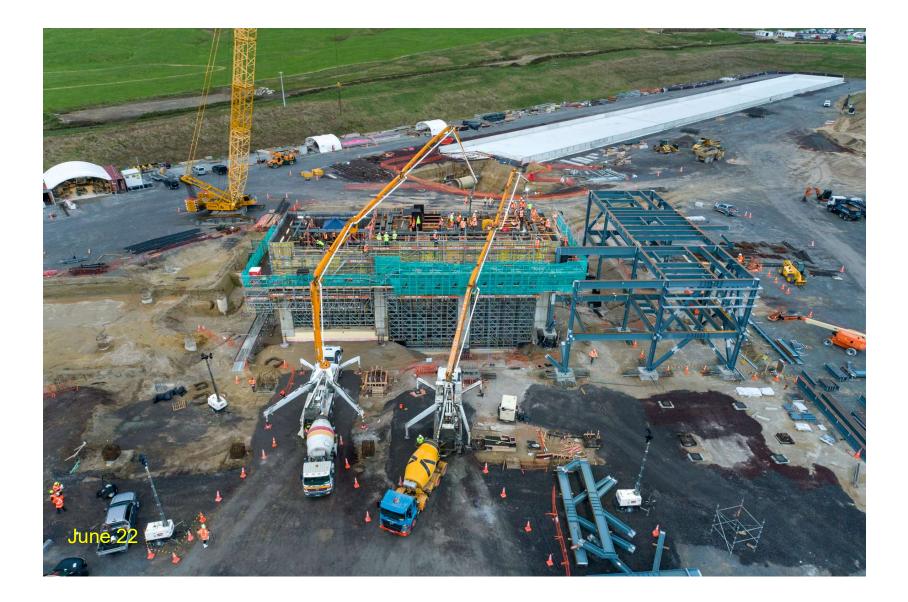




















Aug 22







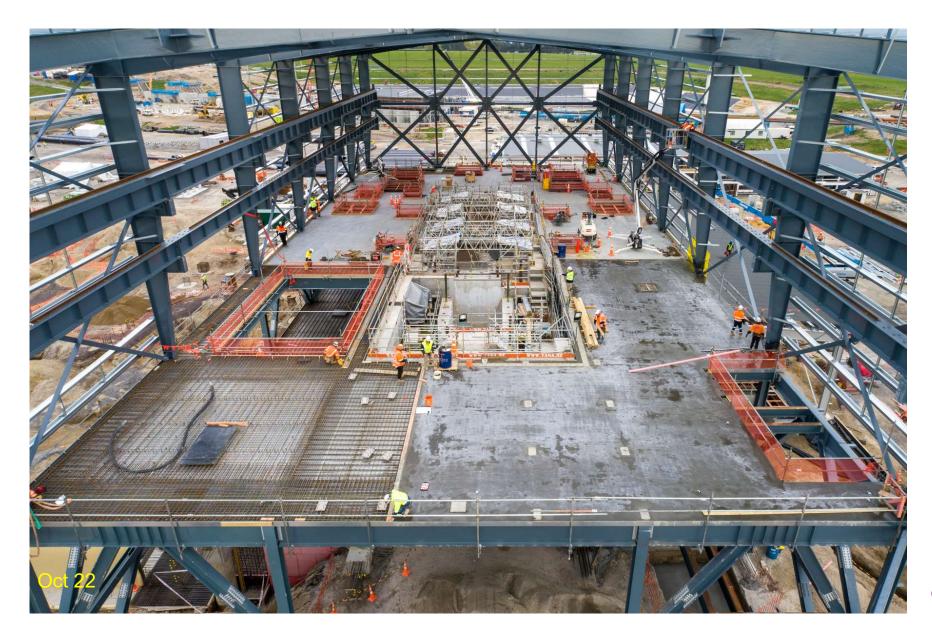


















Nov 22

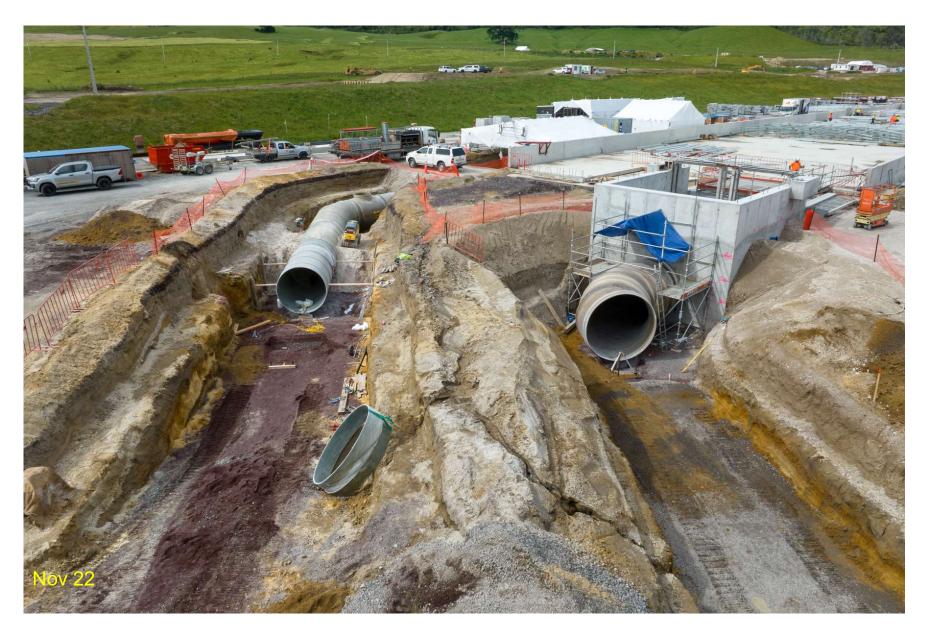














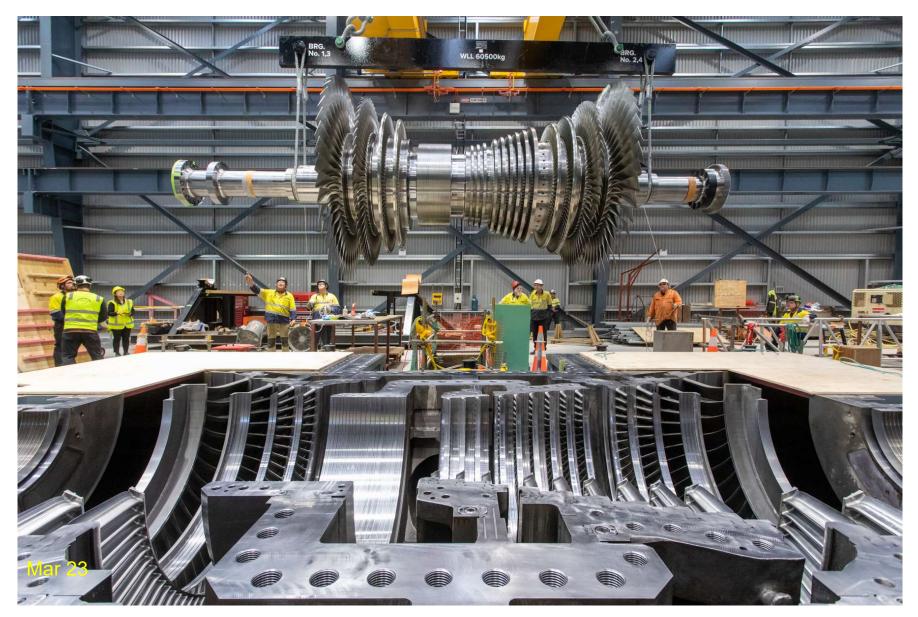


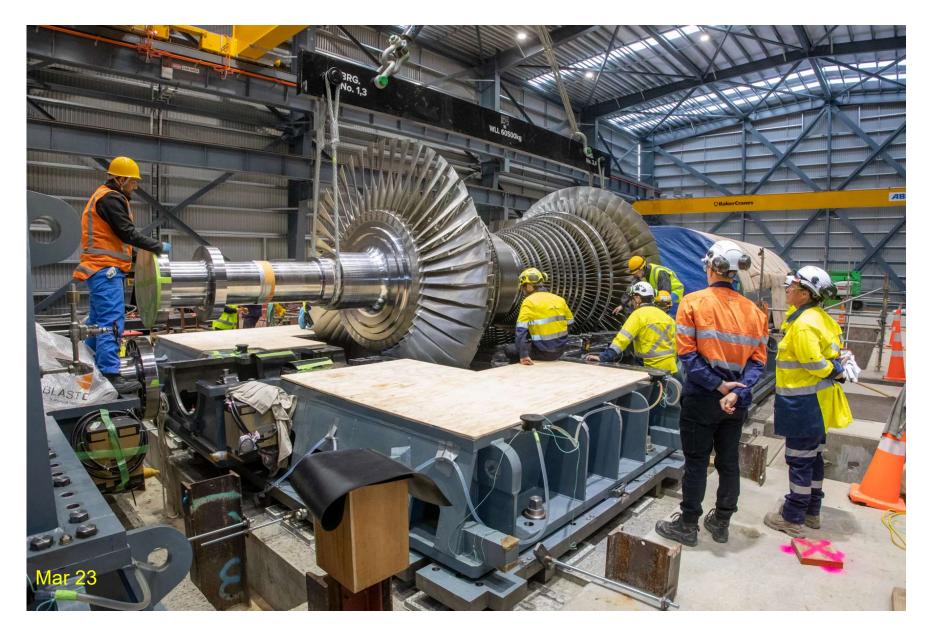




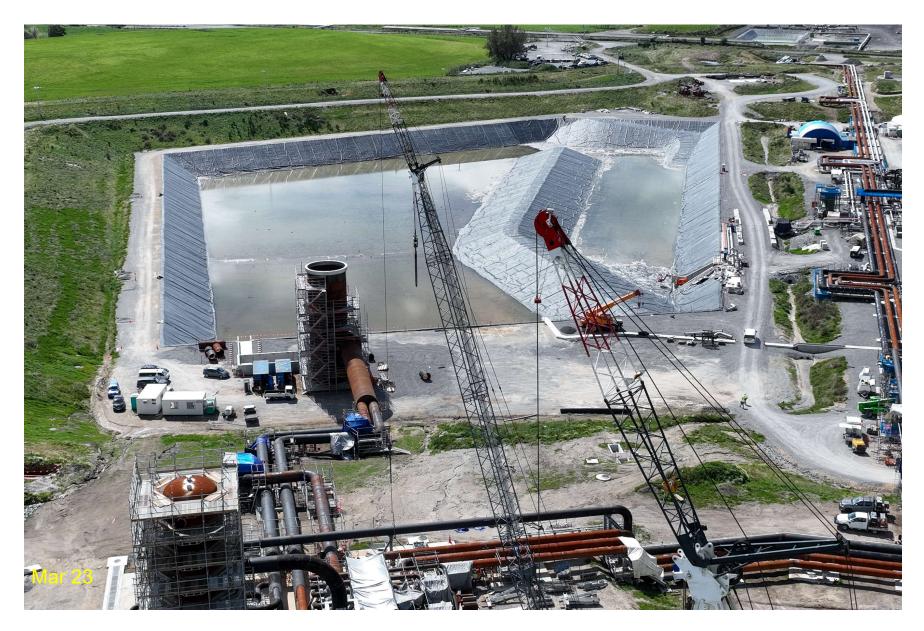


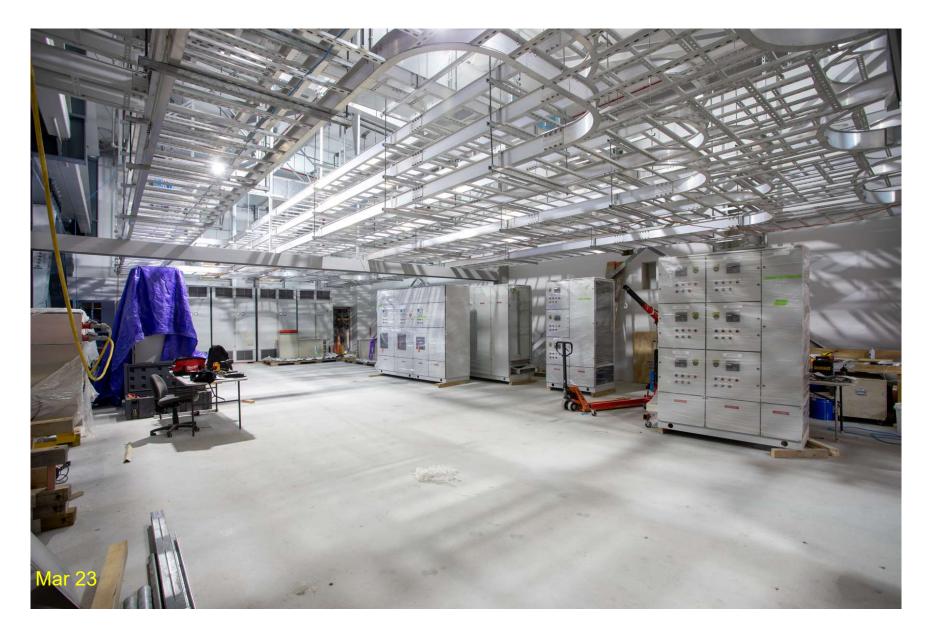




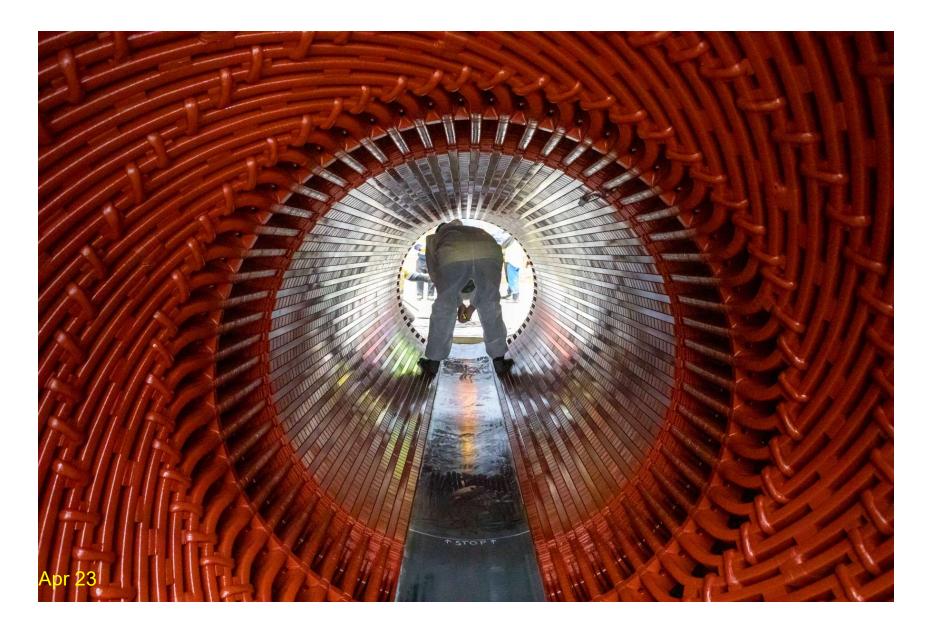


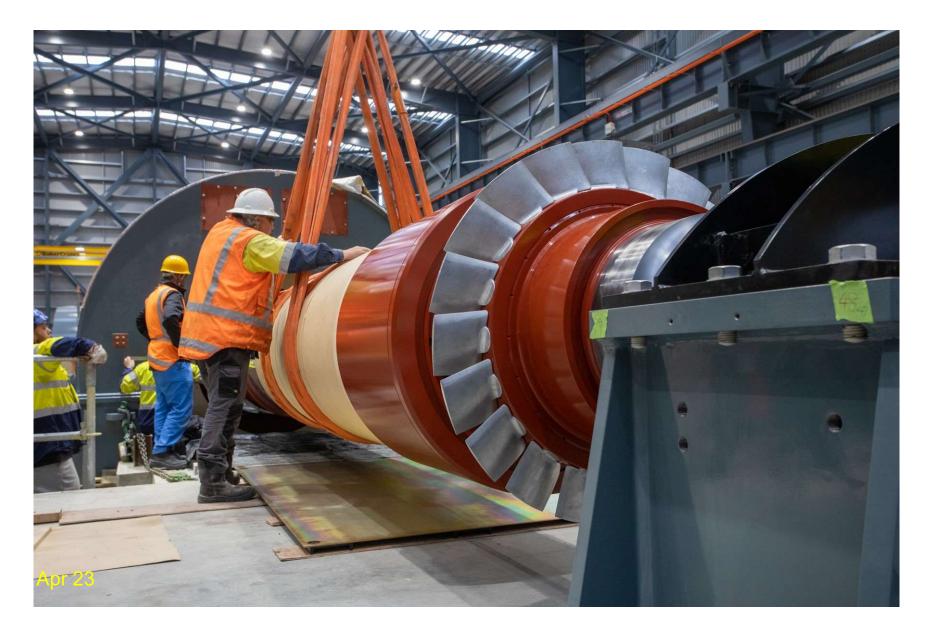






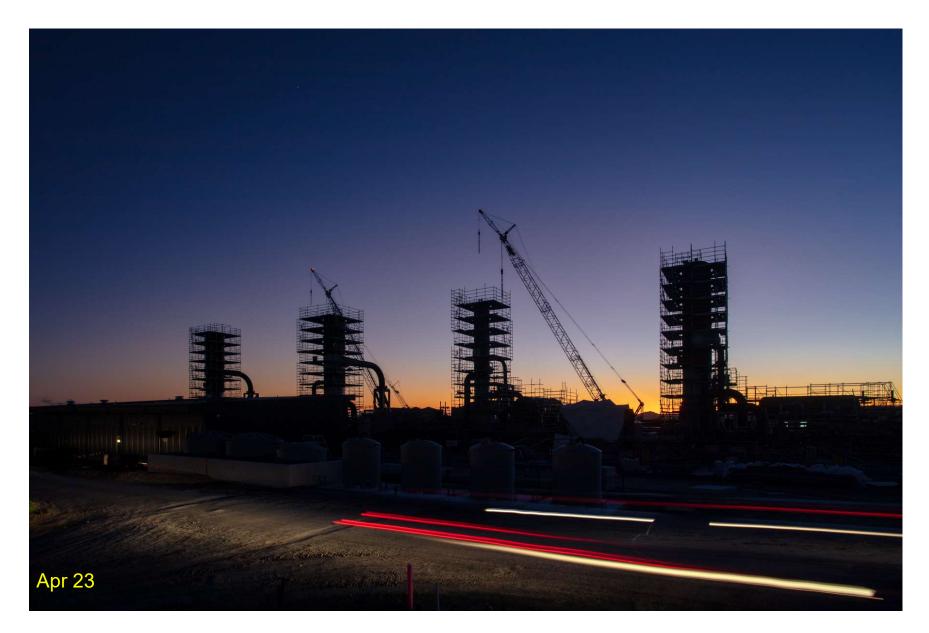
























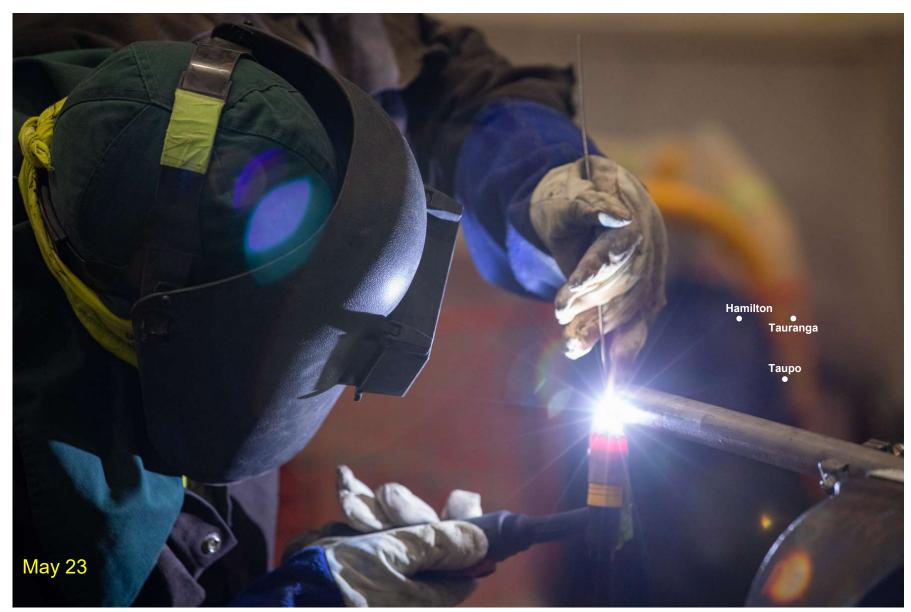








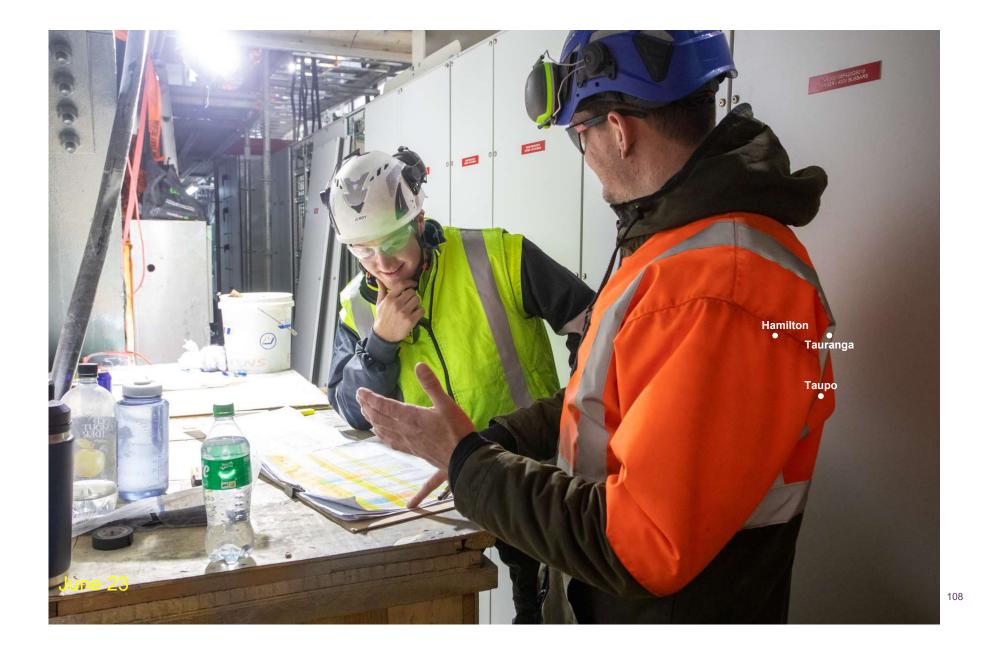


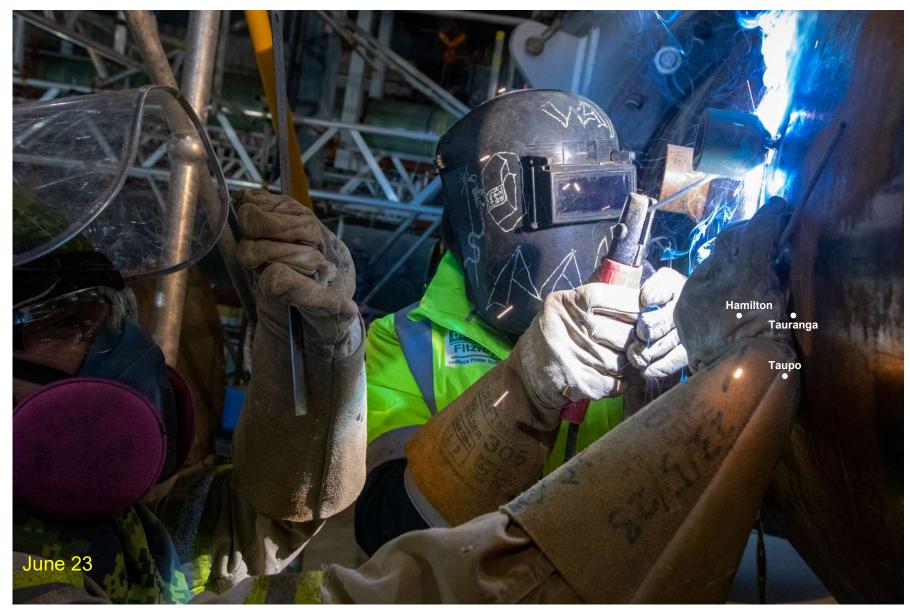








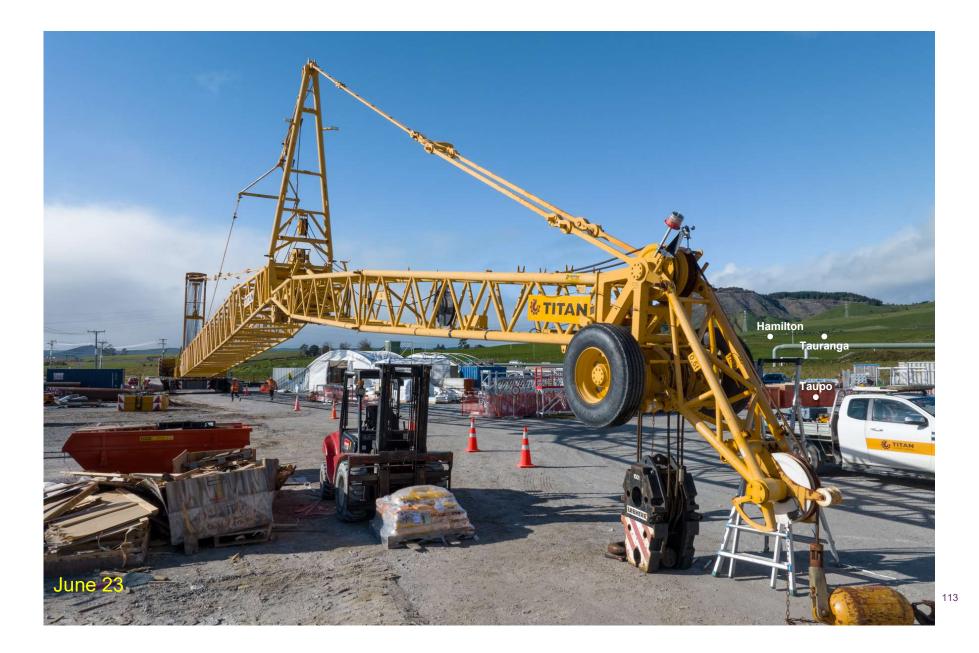






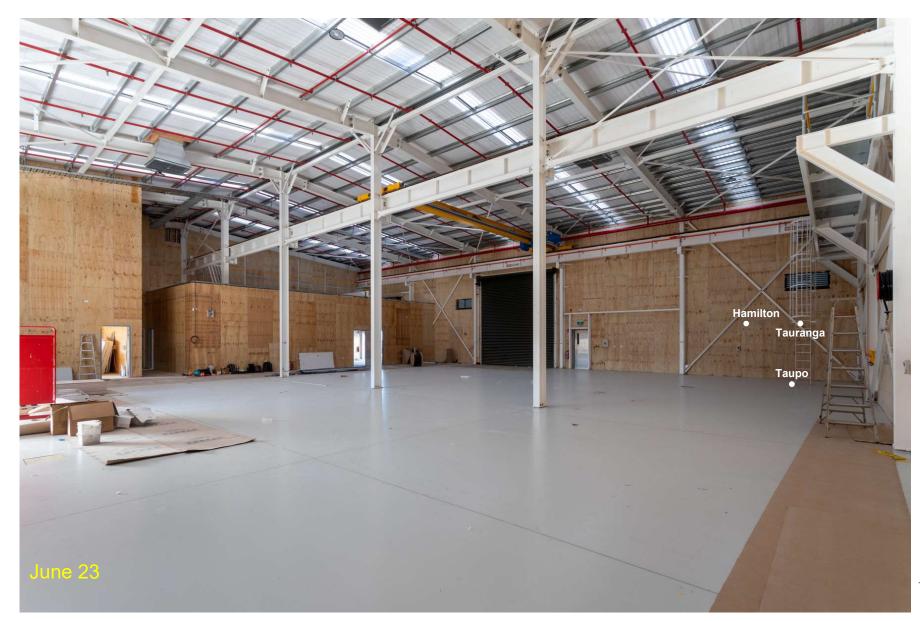


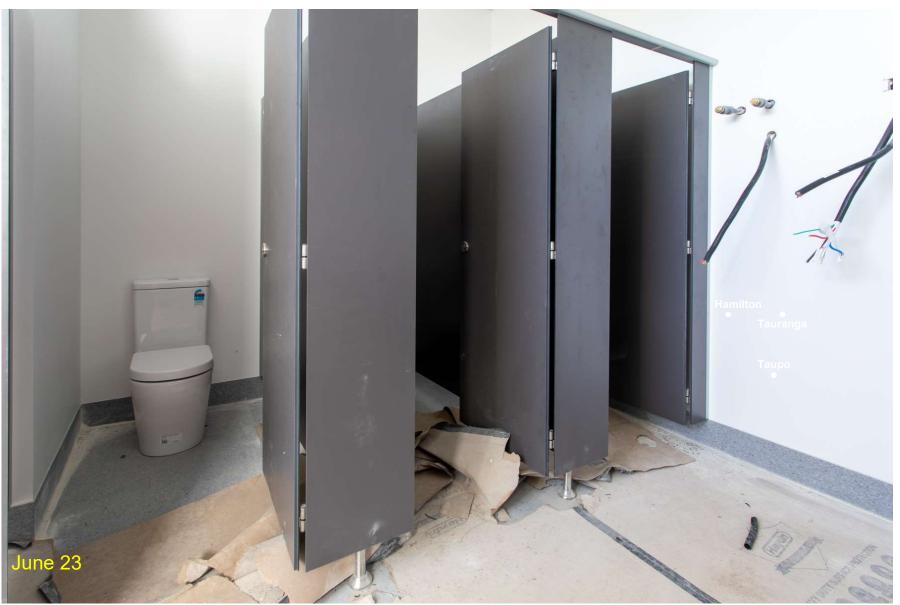












































This is a legacy project, Transitioning NZ to Lower Carbon Emission Electricity.

We are all very proud to be a part of it!

Thanks for the opportunity to share our journey with you.



And we'll see what tomorrow brings



