



NGAWHA GEOTHERMAL POWER STATION EXPANSION PROJECT

BUILDING THE RESILIENCE AND RELIABILITY OF POWER SUPPLY IN THE FAR NORTH

May 2020 : Project update and planned works

CONSTRUCTION DURING COVID 19

When the nation went to Alert Level 4 in late March work on all aspects of the Ngawha expansion project came to a stop.

Prior to lockdown, we were making good progress on multiple work fronts with up to 200 people on site on any one day.

Contractors were focused on mechanical erection of the main power station equipment, construction of the electrical switch rooms, installation of the geothermal fluid piping, and the electrical fitout of the Ngawha substation.

AT ALERT LEVEL 4



Our engineers and contractors continued to progress design work, procure and ship equipment, plan for commissioning of the plant, and attend to some consent compliance matters. Project health and safety plans were updated to include management of Covid-19.



Geothermal fluid separator vessel installed and connection of steam line in progress

MOVING TO ALERT LEVEL 3

Several small “get prepared” activities took place after the announcement in late April.

- All major contractors returned to site on Tuesday 28th April to inspect and service their equipment which had been idle for 5 weeks. They got the site ready to restart work, modified site facilities to allow for personal distancing and introduced hygiene measures required to manage Covid 19.
- Around 75 people were on site in the first week and the full crew is expected to be back on site from mid-May.
- Site entrance procedures have been revised to account for Covid-19.
- There is a heightened H&S focus on Covid-19 management practices, with support from an occupational health nurse.



Ngawha substation construction well advanced with electrical fitout now underway

PROGRESS AT SITE

- Piling of pipeline foundations on the power station platform is well advanced, and due to be completed by the end of May.
- The air-cooled condenser is now largely assembled, including the air plenum and fan deck. Manifold piping is being connected to either side of the condenser bundles.
- Major heat exchangers have all been placed on their foundations as has the generator and turbines.
- Electrical switch room building construction is underway.
- The separator vessel has been installed on its foundations at the production wells.
- Steam and brine lines to the power station are being welded together. Construction of the pipeline to the injection wells has begun.
- The 11kV power distribution line within the site has been completed
- Electrical fitout of the Ngawha substation is underway, civil works at the Kaikohe end of the 110kV line has commenced, and all but three of the new poles for the 110kV line are in place.



40 timber piles were driven up to 10m into the ground to support the fire water tank



Turbines and generator placed on foundation at the power station

UPCOMING WORKS

Construction works across the entire site will continue with a large workforce for the next 3 – 4 months. This includes multiple daily deliveries of concrete and materials, and two large brine mufflers due later in May. The project team is in planning for commissioning of the plant later in the year. We remain optimistic that the project will be completed before the end of 2020.

SITE SAFETY AND ACCESS

Our primary interest is to keep the public around the project site, and personnel working on the project, safe. The works on the project site create many hazards, so please do not enter the site for any reason unless you have permission to do so. Please share this information with anyone who you think may be impacted by the works or has an interest in the project.