

Contact Energy's GeoFuture geothermal power development

1 September 2022

Since 2019 we have been acting for Contact Energy (Contact) on its proposed GeoFuture geothermal power development on the Wairākei Geothermal Field.

GeoFuture is Contact's strategy for continuing and increasing generation from the Wairākei geothermal field to achieve a more efficient utilisation of the geothermal resource for renewable electricity generation purposes and to reduce adverse effects on the Waikato River.

The geothermal resource is a significant taonga for local iwi. The Wairākei geothermal field has been developed since the 1950's and the existing Wairākei A & B power stations are proposed to be replaced by more efficient plant at existing Te Mihi geothermal power station (with options for a small new station beside the existing Wairākei station). The increased efficiency will enable, from a very small increased take of geothermal water, electricity for an additional 77,000 homes (resulting in overall renewable generation for over 320,000 homes from the Wairākei geothermal field).

The Waikato River is also a significant taonga to local river iwi and critically, GeoFuture will cease the discharge of separated geothermal water (SGW) and the discharge of geothermal condensate to the Waikato River. This will considerably reduce contaminant loads to the river.

Our role

Our team's role is to assist Contact's internal and expert advisory team in the successful consenting of GeoFuture. This involves us working alongside Trevor Robinson, a barrister, on the planning and delivery of the consenting strategy. This enables us to provide to Contact our experience in managing large project teams through the consenting process and, given the cultural significance of both the geothermal resource and the Waikato River, our extensive Māori law expertise. We have already prepared evidence and worked with local iwi for the successful consenting of the land use consents for the extension to the existing Te Mihi power station which, was granted at the end of 2021.

GeoFuture is an important project as it will provide a significant amount of baseload renewable generation to assist with the decarbonisation of New Zealand's economy. Geothermal generation has a significant role during the phasing out of coal and gas generation.

The deal is complex given the wide number of resource consents required over a very large area, the significant scientific challenges (geoscience, reservoir modelling and ecological effects), the significant cultural issues and effects and Resource Management Act consenting and regulatory challenges, in particular the Vision and Strategy for the Waikato River (which has directed the cessation of SGW discharges to the Waikato River). Given the length of time the field has been developed for there are also legacy effects related to changes geothermal features.

The GeoFuture development requires significant investment and Contact plans to invest NZ\$750m in implementing this project to allow generation for the next 35 years.

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