



Contact Energy

Geothermal update
November 2011

23 November 2011



contact.

Disclaimer



This presentation may contain projections or forward looking statements regarding a variety of items. Such forward-looking statements are based upon current expectations and involve risks and uncertainties.

Actual results may differ materially from those stated in any forward-looking statement based on a number of important factors and risks.

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Furthermore, while all reasonable care has been taken in compiling this presentation, Contact accepts no responsibility for any errors or omissions.

This presentation does not constitute investment advice.

Introduction



Presentation	
Who is Contact?	<ul style="list-style-type: none">• How does geothermal fit in?
The Wairakei Investment Programme	<ul style="list-style-type: none">• Te Mihi Power Station• Steamfield construction• Bioreactor• Drilling
Future Geothermal Development	

Contact Energy - highlights

Contact Energy is one of New Zealand's largest electricity generators and retailers and owns and operates geothermal, hydro and thermal electricity plants across New Zealand that support homes and businesses

Contact Energy owns and operates **10 power stations** throughout New Zealand

166 MWs (gross) of geothermal generation under construction

New Zealand's only underground gas storage at

Ahuroa, Taranaki

4 geothermal stations in the Central North Island

around **1,150** Staff from Auckland to Invercargill

Generates around **1/4** of New Zealand's electricity

Supplies 22% of the New Zealand electricity retail market (as at 30 June 2011)

4 thermal generation stations, located in Taranaki, Auckland and the Waikato, provide capacity and backup to New Zealand's largely renewable generation

\$3.1 billion Contact Energy had net assets of as at 30 June 2011 (See Contact Energy audited financial statements for the year ended 30 June 2011)

Contact Energy is one of New Zealand's largest publicly listed companies by market capitalisation and is widely held, with **around 79,000 shareholders**

560,000+ customers across Contact Energy's electricity, gas and LPG businesses

Contact Energy – Three key strategies for growth



Lower average cost of generation

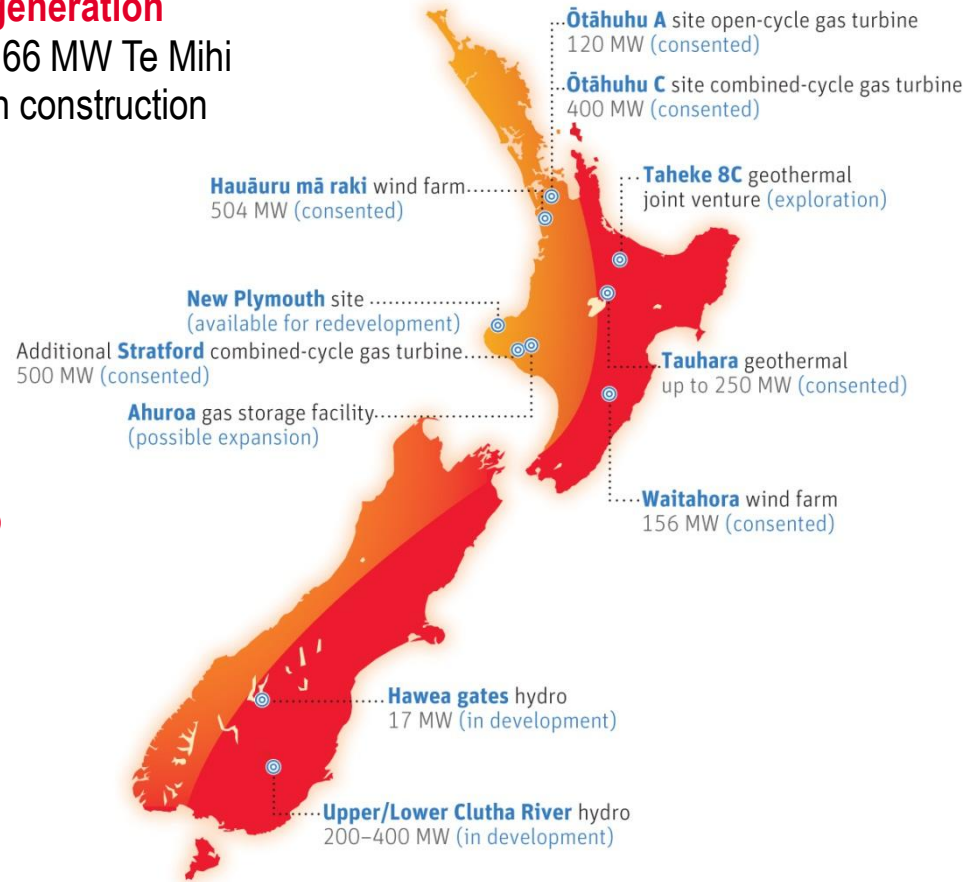
- 166 MW Te Mihi in construction



Increasing portfolio flexibility

- Gas storage
- Stratford peakers
- Gas portfolio

Market share growth





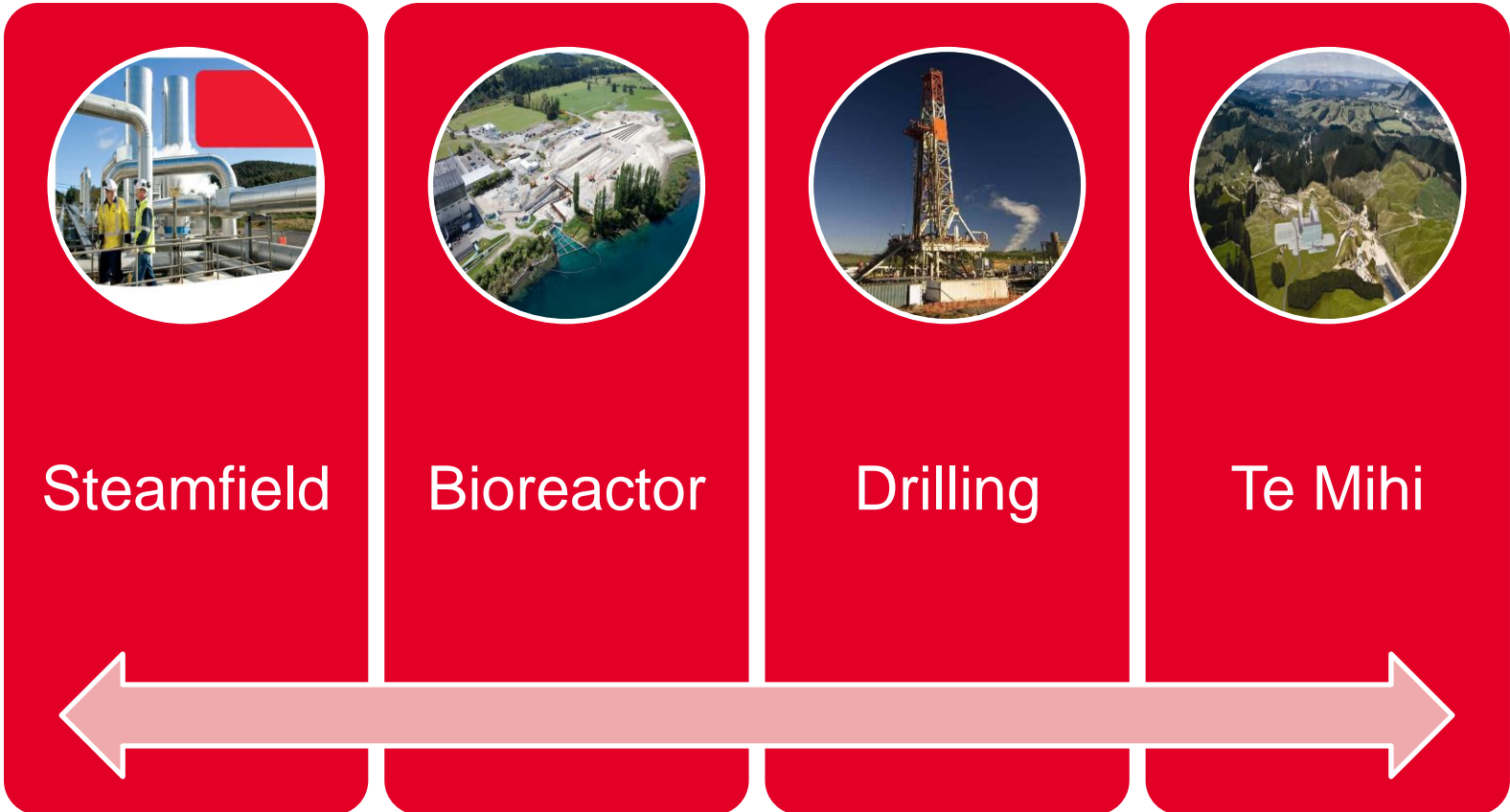
Wairakei Investment Programme



Wairakei Investment Programme



The new power station at Te Mihi is part of the **Wairakei Investment Programme**. The programme is being managed under a single integrated governance structure.



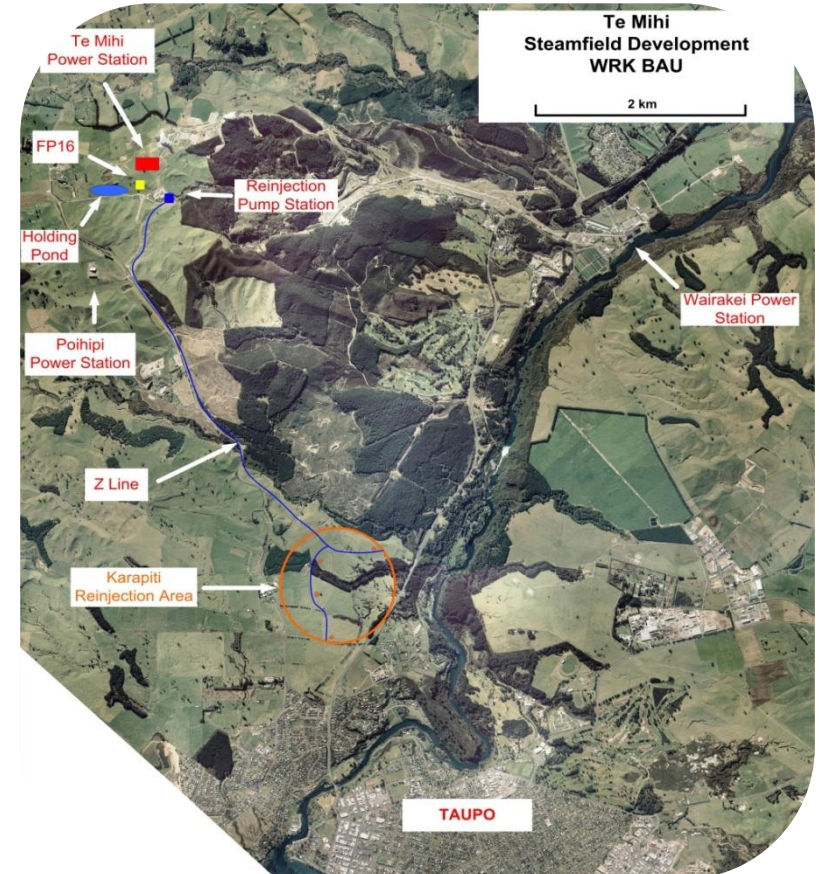
Three large power stations on Wairakei field



Wairakei Project One - Steamfield Project

- **The Steamfield Project requires the construction of:**

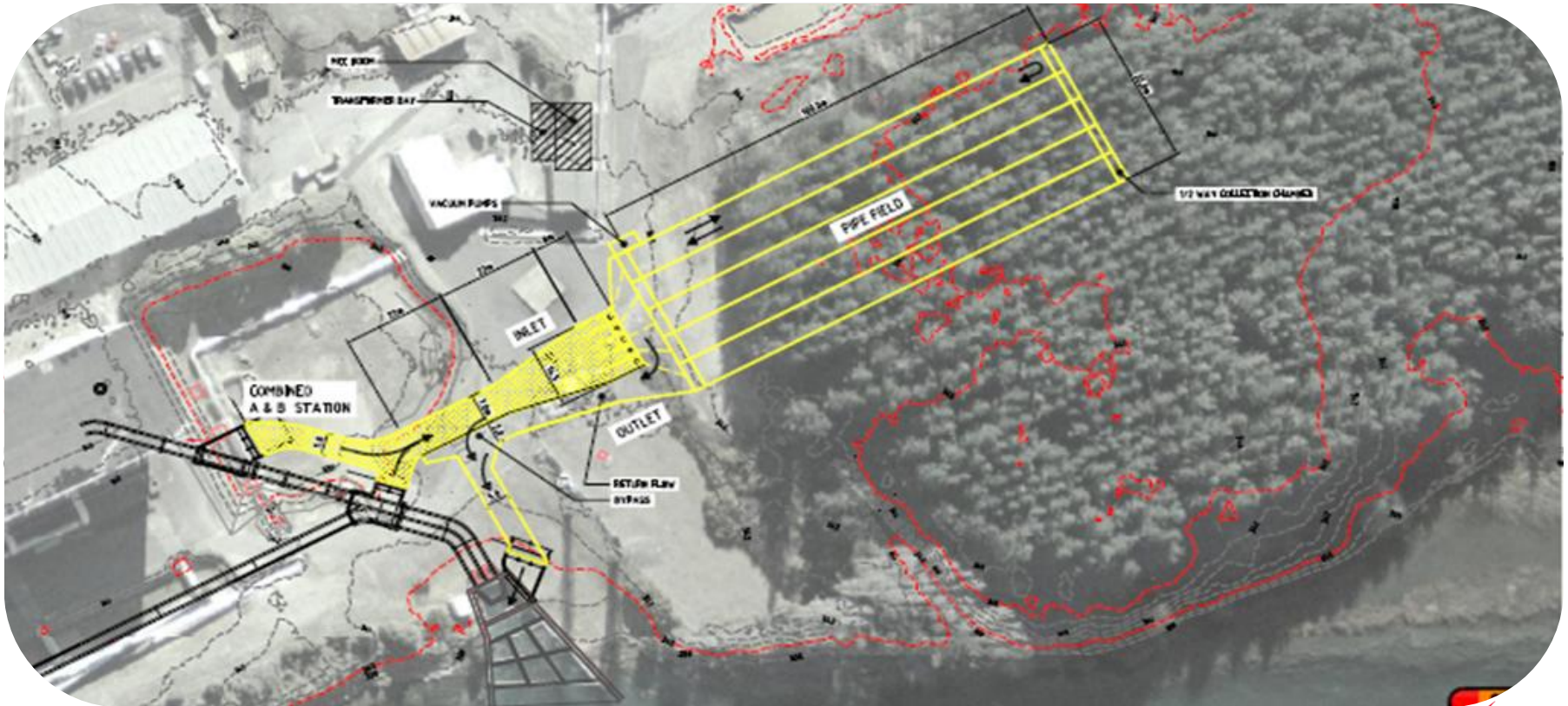
- Production well connections
- New Separation Plant
- New steam and two phase lines
- ReInjection line and pumps – the main reInjection pipeline to wells at Karapiti
- ReInjection well connections at Karapiti and Poihipi West
- Holding pond – enables fluid to be discharged and contained in the event of a station shut or steamfield failure.





Wairakei Project Two - Bioreactor Project – improving discharges to the Waikato river

The bioreactor project will facilitate the required reduction in H₂S discharges to the Waikato River from the Wairakei Power Stations



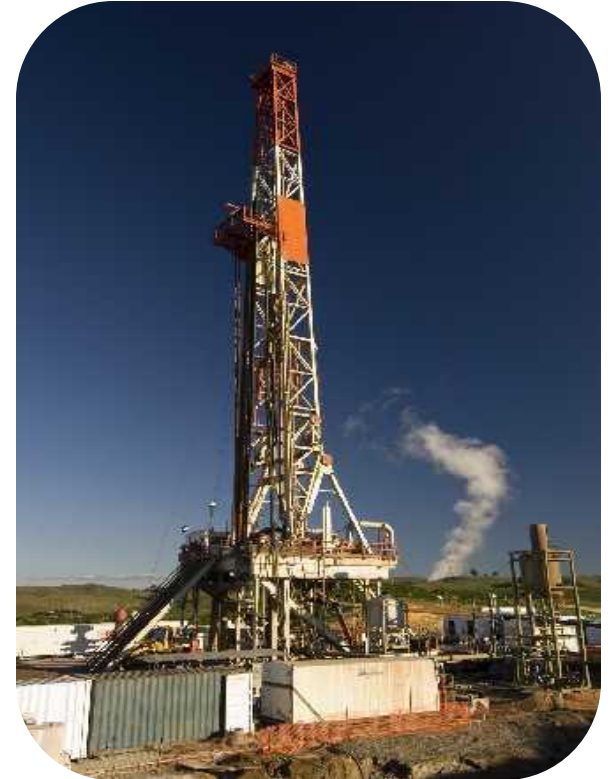


Wairakei Project Three – Drilling Project

The Drilling Project requires:

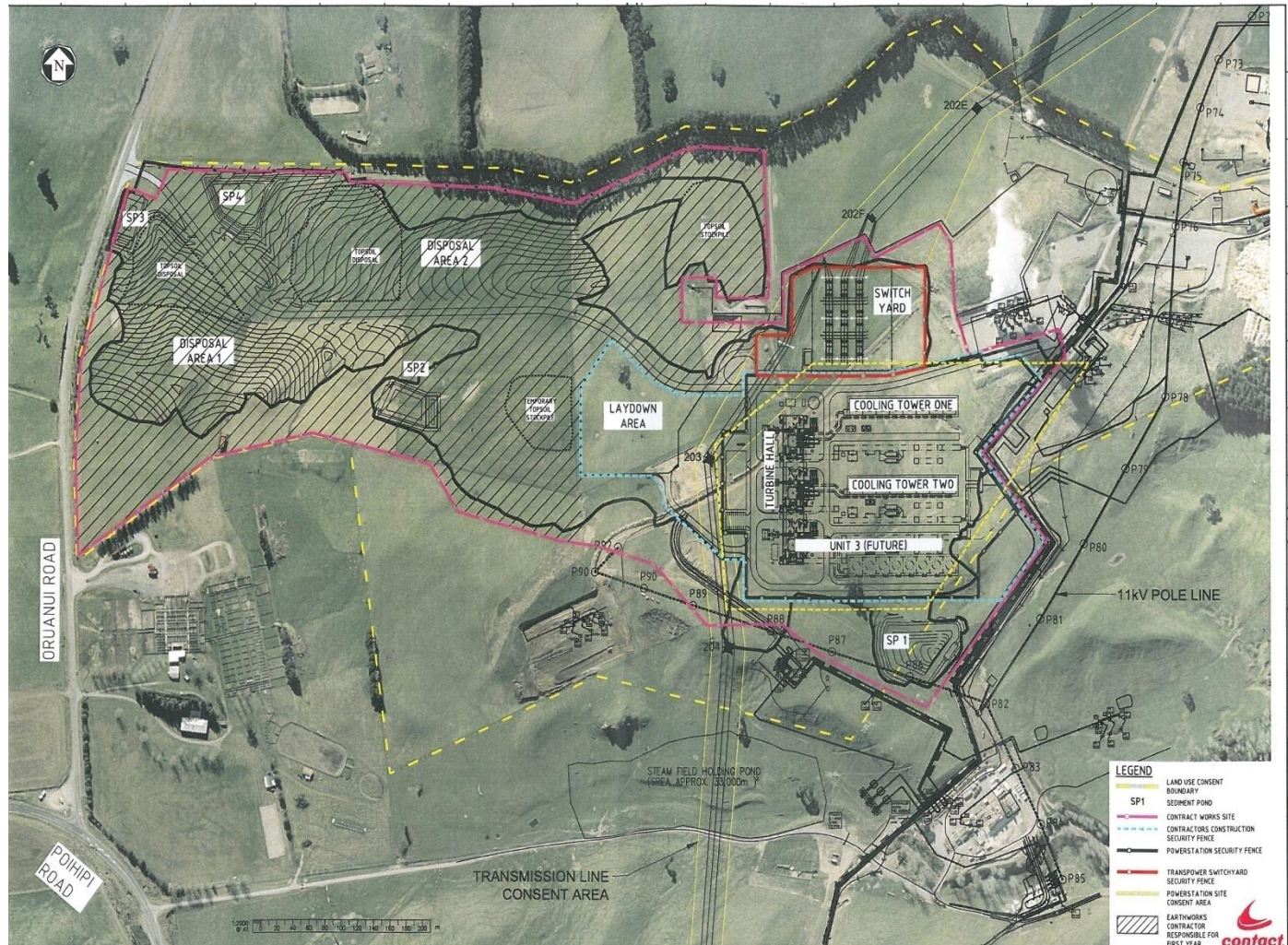
- New production wells at Te Mihi and in the Western Bore Field at Wairakei;
- New reinjection wells at Karapiti;
- New reinjection wells in Poihipi West.

- Maintenance of production and reinjection wells at existing Contact power stations;
 - Wairakei
 - Poihipi
 - Te Huka / Tauhara
 - Ohaaki



Te Mihi Power Station Progress – current status on site

- Roading and site entrance complete
- Sediment control measures in place
- Power House foundation in place
- Turbine supports under construction
- Cooling Tower basin reinforcing being placed
- Switchyard pad prepared
- Detailed design progressing



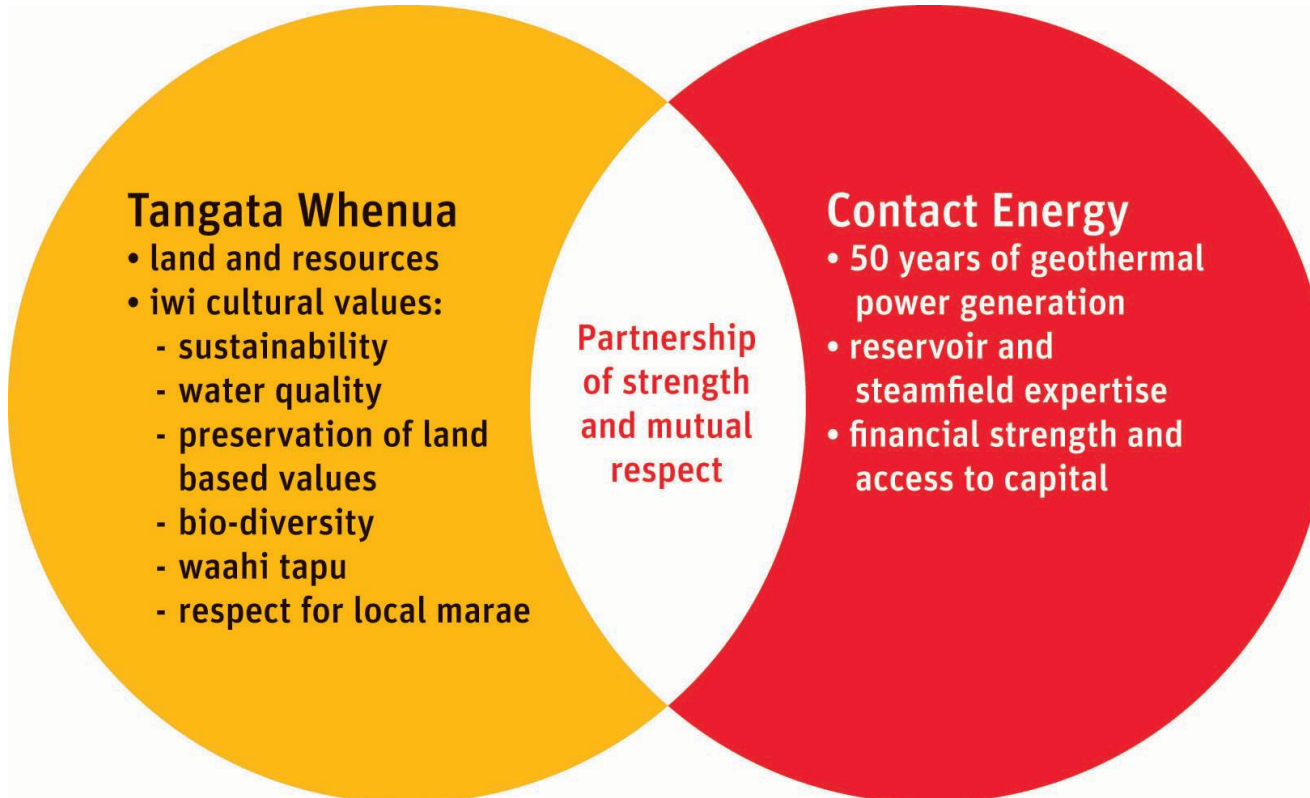


Beyond Te Mihi

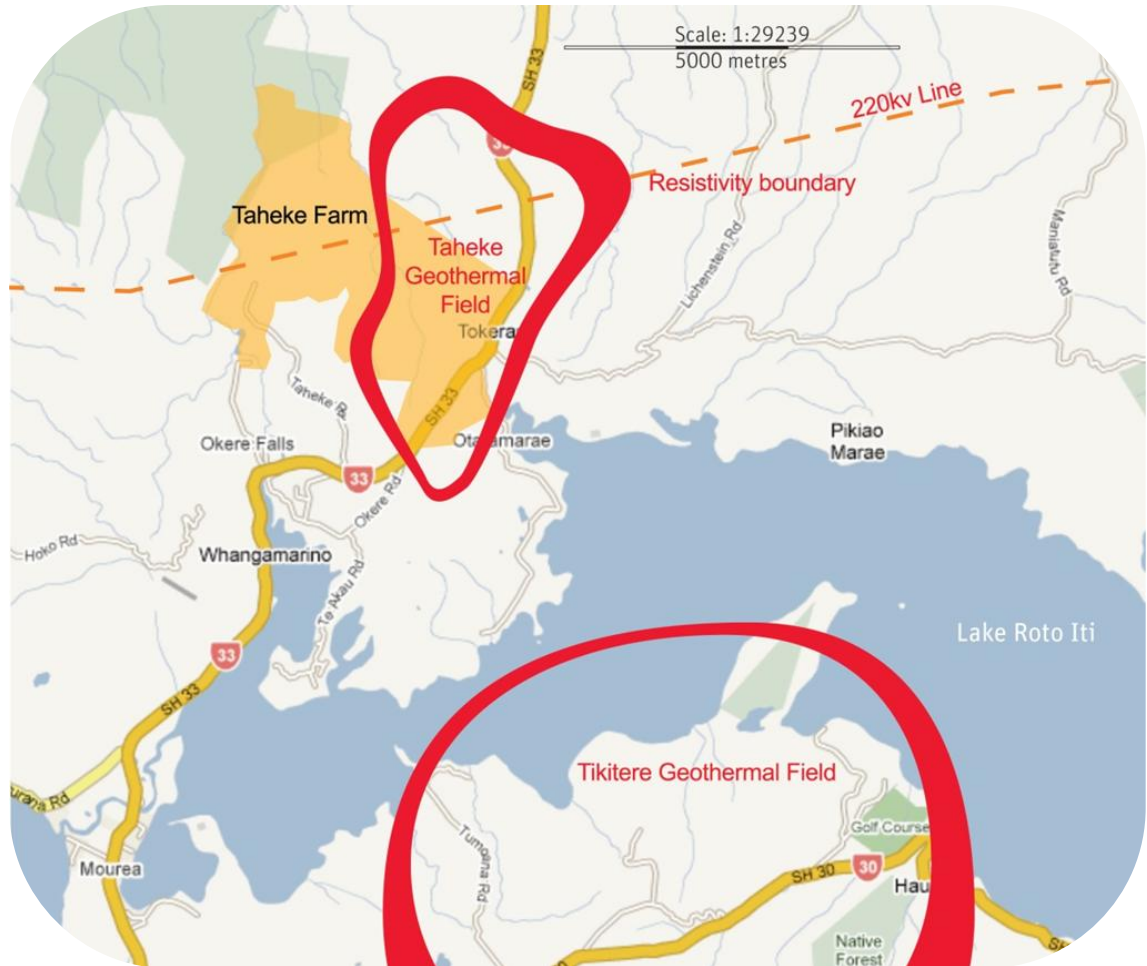
Future Geothermal Development

New fields require partnership with Maori land owners

Combining knowledge and resources – our vision for partnerships

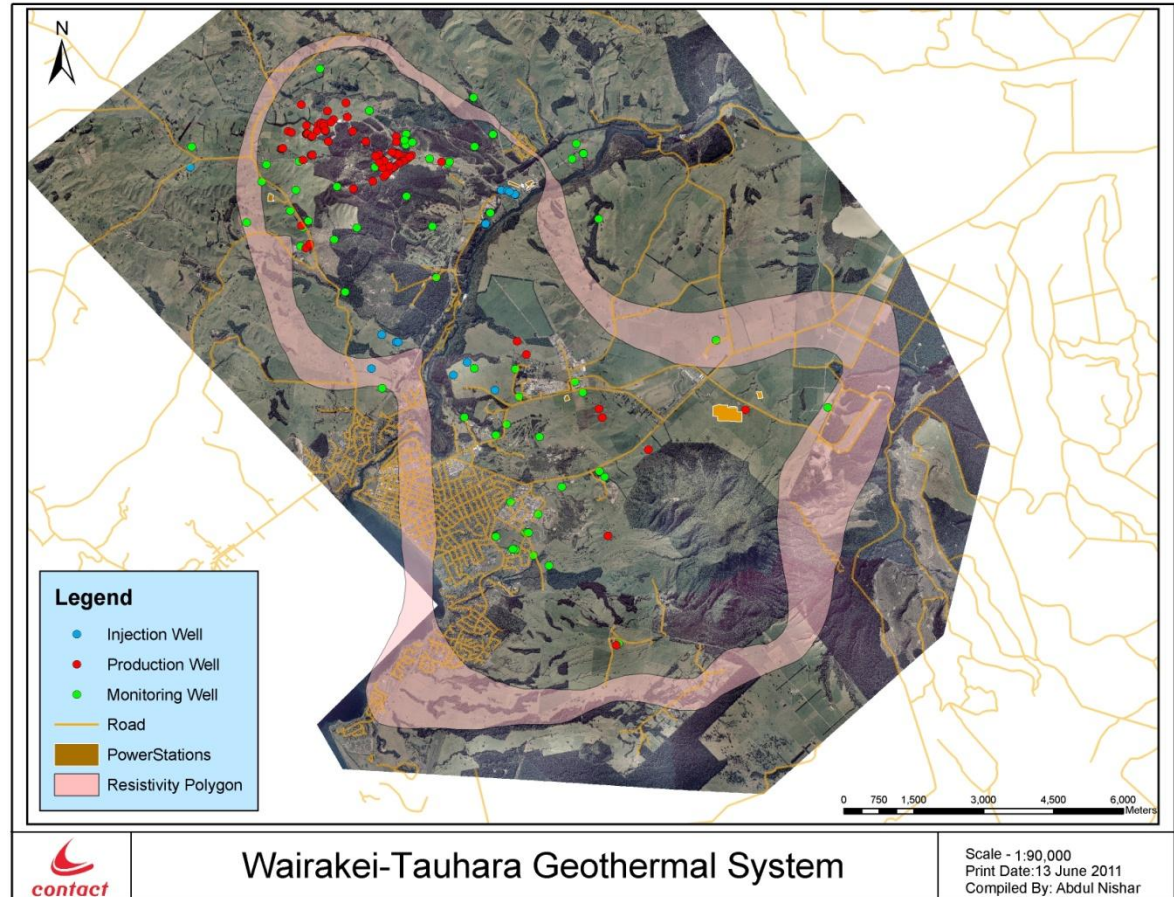


Taheke – our partnership approach in action

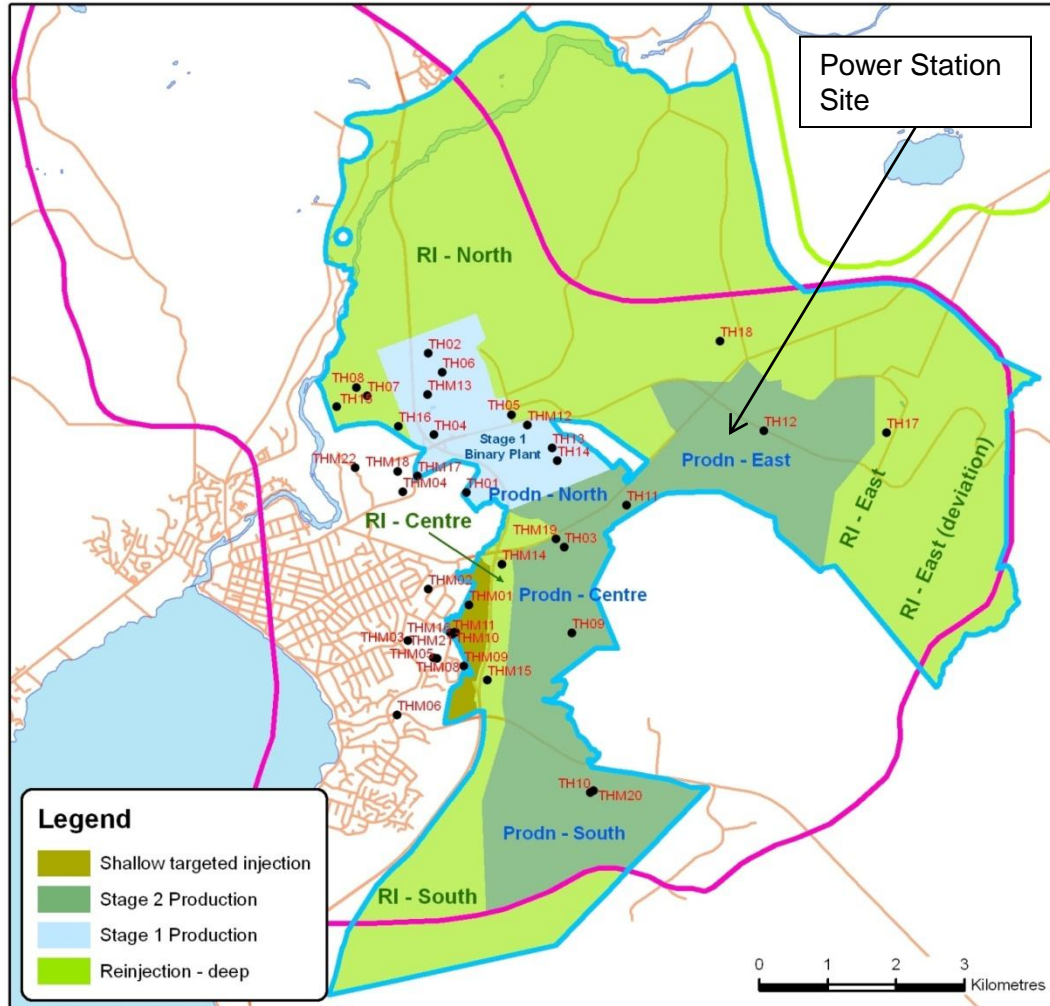


Tauhara: 250 MW consented

- Could be the fifth stage of development of the Wairakei / Tauhara resource following:
 - Wairakei A & B (and binary plant)
 - Poihipi
 - Te Huka
 - Te Mihi
- Follows extensive investigations and builds on more than 50 years of operations on the field
- Was consented under Board of Inquiry process in 2010



Tauhara: Consented zones

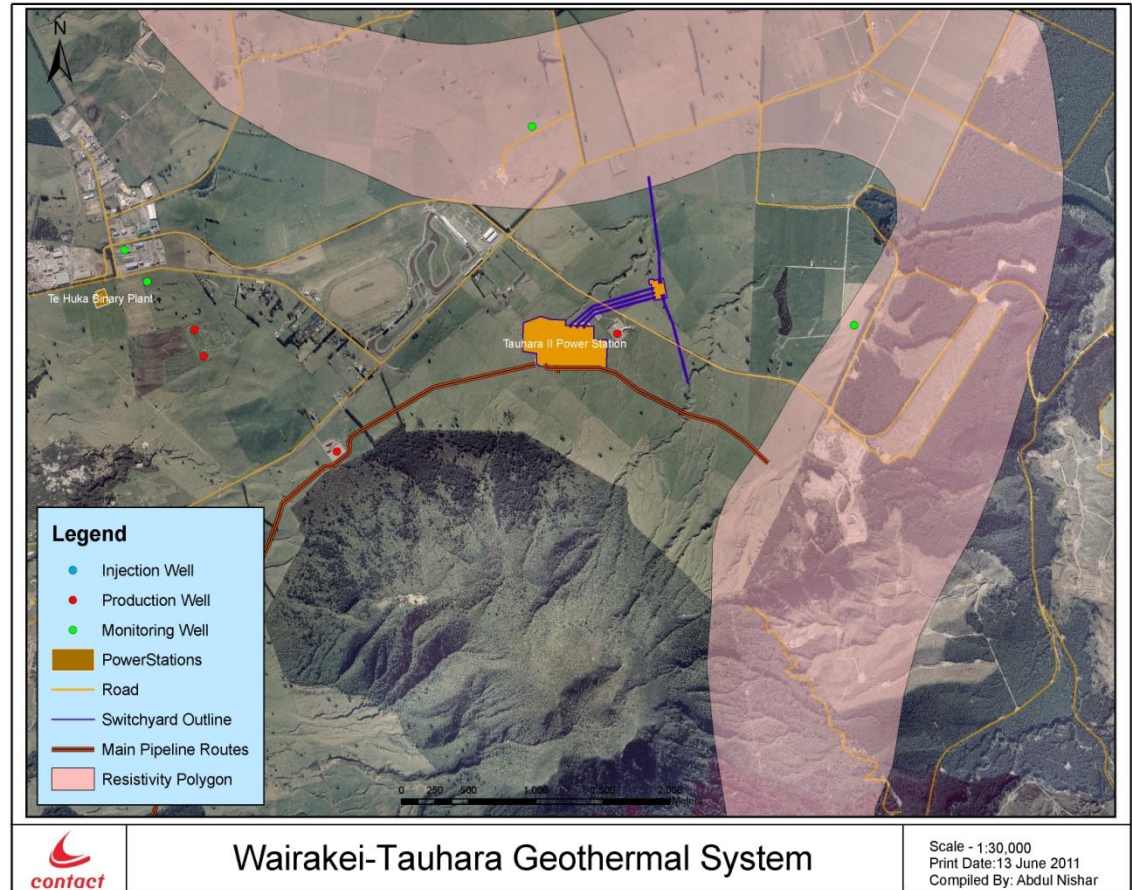


- Consent area is shown by the blue line
- Consent area extends beyond the system boundary to permit flexibility in the reinjection strategy
- Areas excluded from the consent application area – Centennial Drive, Mt Tauhara
- Area includes Te Huka
- Tauhara field area is twice as large as Wairakei



Tauhara - location

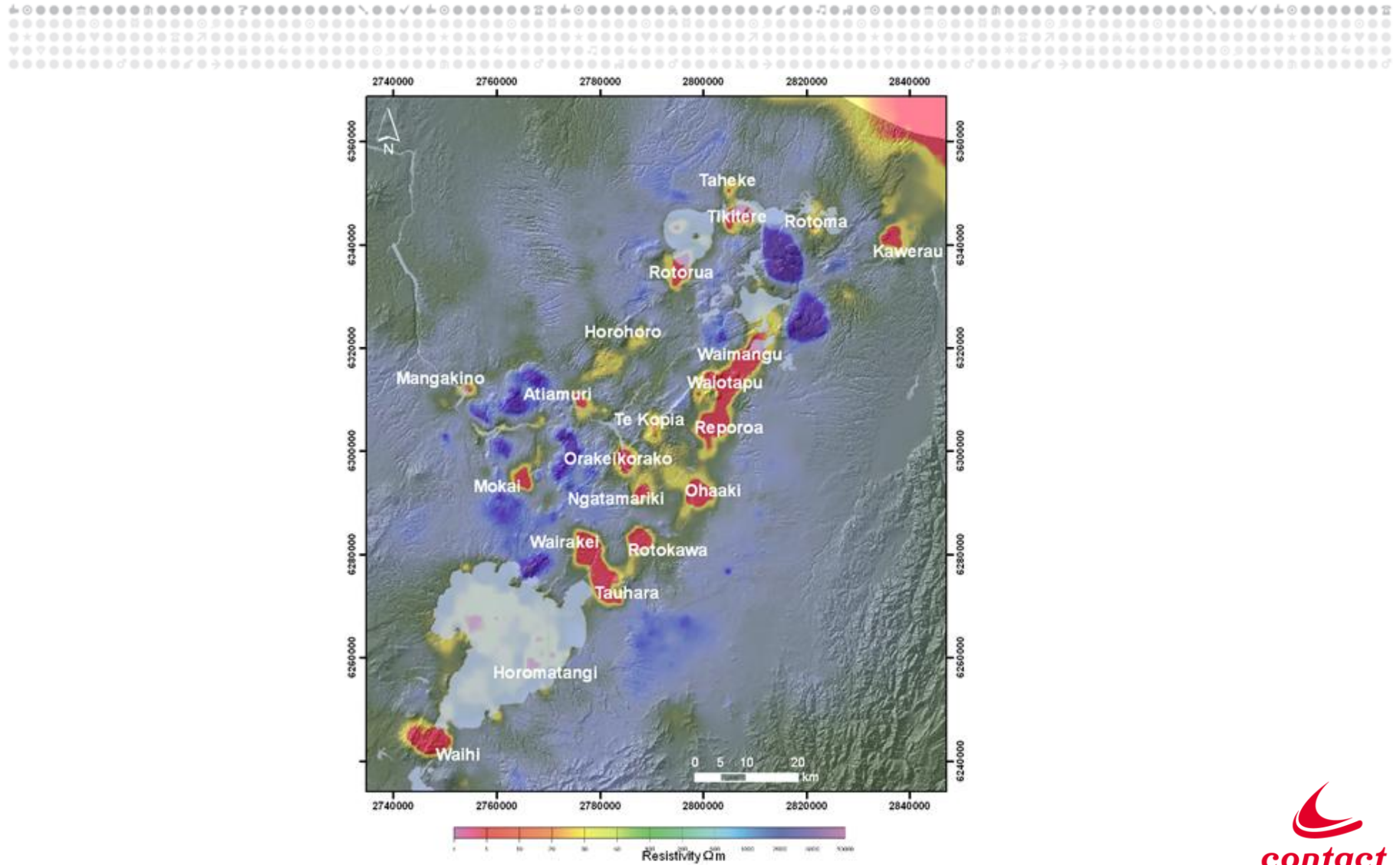
- Located away from residential areas, on flat land, near transmission
- Main pipe corridors and separator stations have been defined
- Well pad locations and branch lines to be defined
- Programme now includes further drilling and investigations to prepare for investment



250MW Tauhara station site to the northeast of Mt Tauhara



Other Prospects



Contact Energy's options position it well for the future

- Contact Energy has a geothermal development pipeline of over 400 MW including projects in construction, consented and in exploration
 - Geothermal generation can be complex to consent requiring world class science and land management to ensure sustainability
- The time is right for geothermal generation in New Zealand – affordable, reliable, renewable and with a low carbon intensity
- New developments will derive from and benefit from partnerships with tangata whenua
- New Zealand's geothermal resources which are available for development are finite – new approaches may see more resource become accessible – but it cannot be developed indefinitely; in New Zealand, new wind, hydro and gas will all have a role to play
- Contact Energy's options across all fuel sources position it well to meet New Zealand's needs and ensures a pivotal role in ensuring New Zealand's security of supply





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