

**BEFORE THE HEARING PANEL FOR TAUPŌ DISTRICT COUNCIL**

**IN THE MATTER** of the Resource Management Act 1991

**AND**

**IN THE MATTER** of a submission by Contact Energy Limited on Proposed  
Plan Change 38 to the Taupō District Plan relating to  
Strategic Directions

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**STATEMENT OF EVIDENCE OF MICHAEL STEVENS**

**ON BEHALF OF CONTACT ENERGY LIMITED**

**CORPORATE**

**9 AUGUST 2023**

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## QUALIFICATIONS AND EXPERIENCE

- 1 My name is **Michael (Mike) Stevens**. I am the Head of Generation Geothermal at Contact Energy Limited (**Contact**) based at Wairākei A & B Power Stations near Taupō.
- 2 I have a Post Graduate Diploma in Business Management from the University of Waikato.
- 3 I have 23 years of experience in the electricity industry and have held multiple positions in the generation side of the industry.
- 4 I joined Contact in 2021 as Head of Project Delivery in the Generation and Trading Team, where I provided leadership, management, strategic support, and oversight of Contact's portfolio of projects and growth opportunities within generation and trading. In 2022 I moved into the Head of Generation Geothermal role.
- 5 In my role as the Head of Generation Geothermal at Contact I am responsible for the following:
  - managing all aspects of Contact's Geothermal Resources, Operations, Engineering and Technical Services;
  - managing relationships with international equipment suppliers, contractors, landowners, iwi, and local and regional government with regard to geothermal generation activities, its effects and the wider opportunities it presents;
  - ensuring all site works and operations on the geothermal generating sites comply with legislative, regulatory, and environmental requirements are met. Ensure all resource consent conditions are met; and
  - engaging and communicating with relevant regional and local authorities, tangata whenua, neighbouring landowners and other environmental stakeholders about the environmental and cultural effects associated with Contact's geothermal business and operations.
- 6 Prior to joining Contact, I was the Manager for the Rotokawa/Nga Awa Purua geothermal power stations and Rotokawa geothermal reservoir. In that role I was responsible for:

- management of the Rotokawa and Nga Awa Purua Joint Venture Businesses;
- managing relationships with international equipment suppliers, contractors, landowners, iwi, and local and regional government with regard to geothermal generation activities on the Rotokawa geothermal reservoir, its effects and the wider opportunities it presents;
- ensuring all site works and operations on the geothermal generating sites comply with legislative, regulatory, and environmental requirements are met. Ensure all resource consent conditions are met; and
- oversight of the Mercury reliability engineering team and outage management team.

## BACKGROUND

- 7 In preparing my evidence I have reviewed at a high level the relevant parts of:
- the proposed Taupō District Plan Change 38 - Strategic Directions (**PC38**);
  - Contact's submissions and further submissions;
  - the Taupō District Council's (**District Council**) section 42A reports for Plan Changes 38 and 42, including the versions showing recommendations from the District Council's supplementary evidence and additional supplementary evidence (**section 42A report (July version)**); and
  - the statement of planning evidence prepared by Mr Mark Chrisp (**Mr Chrisp**) on behalf of Contact.
- 8 This statement is a corporate one, and not expert evidence. I am authorised by Contact to provide this evidence on its behalf.

## SCOPE OF EVIDENCE

- 9 The purpose of this statement is to provide:
- an overview of Contact, including its operating history including its assets in the Taupō District (**District**), being its seven geothermal power stations (**Power Stations**) and two more under construction;

- the significance of renewable electricity generation (**REG**) in the Taupō District and its contribution towards meeting the New Zealand Government’s greenhouse gas emissions targets;
- the importance of enabling REG activities and operations through appropriate provisions in the District Plan, and protecting these strategic assets from incompatible land uses and potential reverse sensitivity effects; and
- An overview of the key issues and concerns that Contact has with the PC38.

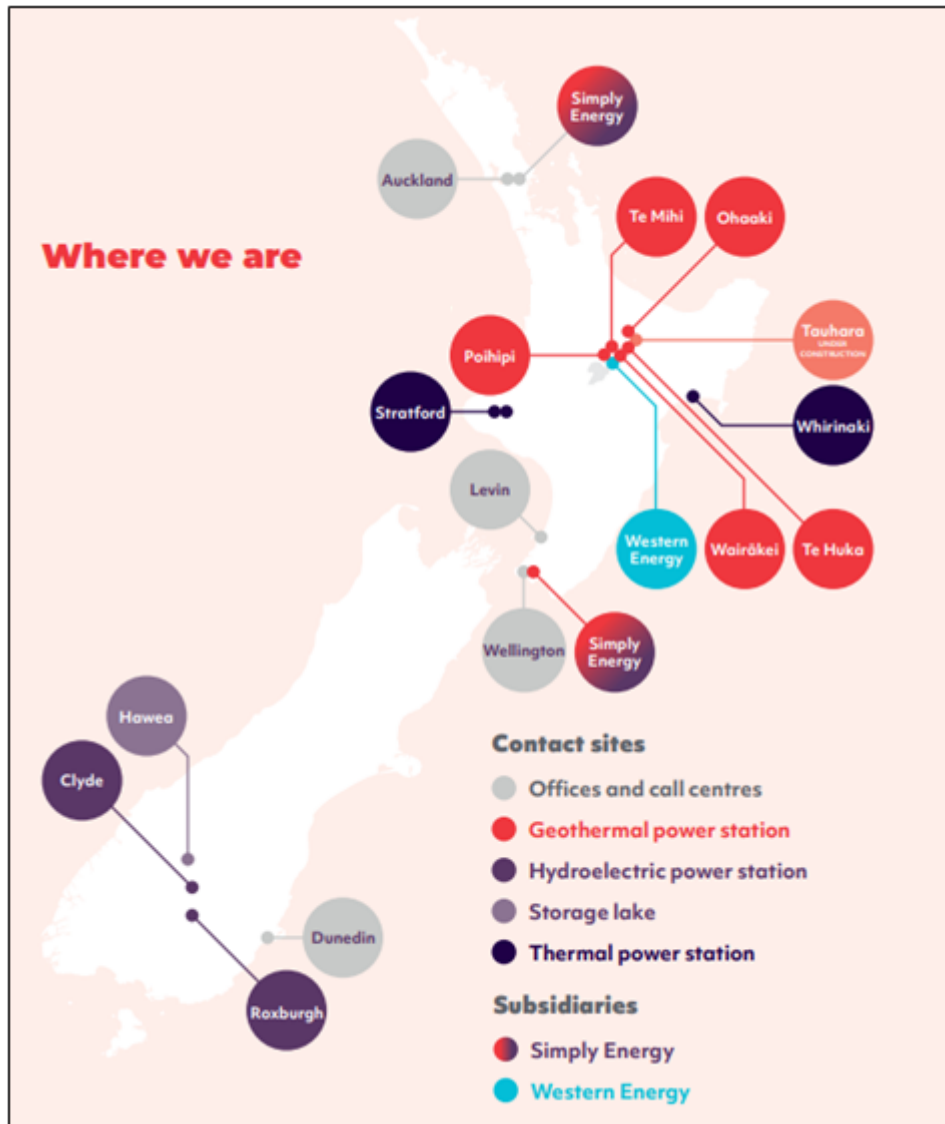
## INTRODUCTION

- 10 Contact is the second-largest electricity generator/retailer in Aotearoa New Zealand with a flexible and largely renewable portfolio of electricity
- 11 Contact owns and operates 12 Power Stations across the country, of which seven of these are located within the Taupō District, being:
  - Wairākei A Power Station
  - Wairākei B Power Station
  - Wairākei Binary Plant
  - Poihipi Power Station
  - Te Mihi Power Station
  - Te Huka Power Station
  - Ohaaki Power Station
- 12 Contact is also currently constructing two new geothermal power stations in the Taupō District, being:
  - Tauhara Power Station
  - Unit 3 at the Te Huka Power Station Site
- 13 Combined with other generators, there are 25 REG power stations in the Taupō District, all being geothermal or hydro.
- 14 The importance of renewable electricity generation needs to be recognised and provided for in the Taupō District Plan, particularly within the Strategic Directions chapter. The on-going operation of existing, and the development of new, REG sites in the District is critical to ensuring a reliable and secure supply of electricity as well as alleviating the impacts of climate change and achieving Central Government’s greenhouse gas emissions targets.

- 15 Contact wants to ensure that the provisions of the District Plan enable and provide for this critical infrastructure both now and in the future and protect it from incompatible land uses and potential reverse sensitivity effects.
- 16 The most appropriate and pragmatic way of doing this is through a stand-alone chapter for REG in the District Plan, and this remains Contact's primary request for relief in relation to its submissions on PC38.

#### **CONTACT ENERGY LIMITED**

- 17 Contact is the second-largest electricity generator/retailer in Aotearoa New Zealand with a flexible and largely renewable portfolio of electricity generation assets. Contact is listed on the New Zealand (NZX) and Australian Stock Exchanges (ASX) and has approximately 63,000 shareholders.
- 18 Contact owns and operates 12 generating Power Stations across Aotearoa New Zealand (refer to **Figure 1**), and generally produces approximately 80-85 percent of its electricity from renewable hydro and geothermal resources.



**Figure 1: Location of Contact's assets and operations**

19 Contact's contribution to New Zealand's electricity generation is critical to the health and wellbeing of New Zealanders. For example, only Contact supplies electricity to 4,428 "medically dependent" customers, which includes individuals as well as numerous hospitals, retirement villages and medical centres. Contact also supplies 14 councils with a total of 161 connections. These connections to health care and council infrastructure help to support the health and wellbeing of numerous New Zealanders by ensuring that these essential services have the electricity they need to continue to operate.

20 Contact's strategy focuses on achieving its vision: "Building a better Aotearoa / New Zealand by leading the decarbonisation of its economy."

To do this, Contact is (amongst other things) focusing on the development of new REG assets, and the on-going decarbonisation of its current generation portfolio.

- 21 Contact is continuing to investigate new REG development opportunities across Aotearoa New Zealand, including additional geothermal, wind, and solar developments.
- 22 In 2008, 55 percent of Contact's electricity generation portfolio was from renewable sources. Since then, Contact has increased the proportion of its electricity generation from renewable sources to 84 percent (81 percent in the 2021 financial year). When the Tauhara Geothermal Power Station is commissioned, approximately 95 percent of the electricity generated by Contact will be from renewable sources.

#### **CONTACT'S ASSETS AND OPERATIONS WITHIN THE TAUPŌ DISTRICT**

- 23 Geothermal power generation is a reliable source of low-carbon, renewable base load electricity for the national grid. Geothermal energy has a fundamental role in replacing thermal (gas, coal, and diesel) power stations to support the decarbonisation of Aotearoa New Zealand's electricity system.
- 24 Contact is New Zealand's largest producer of renewable electricity from geothermal resources with the operation of its Wairākei A&B Power Stations, Wairākei Binary Plant, Poihipi Road Power Station, Te Mihi, Ōhaaki and Te Huka Power Stations.
- 25 These Geothermal Power Stations are all located within the Taupō District (refer to **Appendix 1**) and produce sufficient electricity to provide power to more than 250,000 homes. This location also ensures that the power generation is relatively close to areas of demand in the central to upper North Island, reducing transmission losses.
- 26 The combination of GeoFuture (related to the Te Mihi and Wairākei power stations), Stage 1 of the Tauhara Power Station (currently under construction) and Te Huka expansion (also under construction) will result in Contact making an investment of approximately \$1.9 billion in additional REG capacity in the Taupō District.
- 27 Across its operations in the District, Contact employs 245 full time permanent employees.

28 Continued operation of a geothermal power station also requires ongoing investment in staff and plant to maintain its output. Contact expects to employ 15 additional full time operational staff following the construction phase of GeoFuture, and approximately 2.3 million person-hours of labour, spread over an approximate 27-month period with about 70 percent of this employment in the Waikato Region.

#### **THE STRATEGIC IMPORTANCE OF REG IN THE TAUPŌ**

29 Within the Taupō District there are 25 power stations generating renewable electricity and this is one of the most significant activities in the District.

30 With Tauhara and Te Huka 3 under construction that will make 27 REG power stations in the Taupō District.

31 Combined, these assets can generate up to 1,900 MW which is the equivalent of being able to provide electricity to approximately 1.9 million homes and businesses.

32 These assets are largely located within the District's rural and industrial environments, and their locations are shown in **Appendix 1**.

33 Climate change is one of the most significant issues facing the entire planet. The ongoing operation of existing REG activities and the development of additional REG capacity is one of the most important resource management issues facing the country (and the planet) in order to address climate change by decarbonising the economy.

34 The importance of renewable electricity generation needs to be recognised and provided for in the Taupō District Plan, particularly within this section that sets out how climate change is to be addressed within the Taupō District. In that regard, the first priority should be to support activities that will help avoid climate change occurring in the first place. High on that list is renewable electricity generation.

35 Ms Hilary Samuel notes in her overarching section 42A Report (**Plan Changes 38-43 Overarching Section 42a**) that the ongoing view of the energy sector is that the District Plan would benefit from an Energy Chapter. An officer recommendation to proceed with a stand-alone Energy Chapter will be discussed with Councillors when scoping subsequent plan change bundles<sup>1</sup>. Contact supports this approach.

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<sup>1</sup> Point 74, pg 18 of the Plan Changes 38-43 Overarching Section 42a report



## PROTECTING REG FROM POTENTIAL REVERSE SENSITIVITY EFFECTS AND LAND USE INCOMPATIBILITY

- 36 Reverse sensitivity is a key issue for Contact, and its geothermal operations within the Taupō District.
- 37 Reverse sensitivity is the vulnerability of an established land use to complaint from newly establishing ones that are *more* sensitive (such as residential activities).
- 38 It describes a situation whereby a new sensitive activity (like a house) locates or expands in proximity to existing, lawfully established ones such as a geothermal power station – or an industrial zone. The expectations of amenity by the new residents moving into this area are akin to those that would be found in an urban environment. The smells, noises and light generated by these “heavier and more intense” operations – despite being compliant with resource conditions and permitted activity rules in the relevant district and regional plans, are not compatible with and not considered to be appropriate by the new residents. Consequently, complaints are made. If left unchecked, restrictions and operational constraints are imposed on the existing (for example) REG or industrial activity. At worse, the existing activity is forced to shut down or relocate.
- 39 The time and cost associated with managing complaints is significant and, in some cases, can take up to 20 hours (or longer in some instances) to respond to a single complaint.
- 40 It is important to note that reverse sensitivity is not about an activity that is *non-compliant* – or acting outside the parameters of a resource consent). Rather, it is the perception of what is appropriate or what compliance should look like that is the issue.
- 41 Contact is concerned that whilst PC38 recognises the important and significant contribution and role that the District’s REG assets make towards alleviating the impacts associated with climate change by decarbonising our economy, subsequent (and lower order) sections of the District Plan (including proposed zoning changes) severely undermine this strategic intent. This will, in my opinion, exacerbate existing reverse sensitivity issues and directly influence future investment and reinvestment decisions by Contact.

42 Whilst more of an issue for PC42, it is important to raise this issue today – as the chapters, and proposed zoning frameworks form an overall integrated package. What is important to note is that the urban growth framework for Taupō clearly utilises an “urban fence” being the East Taupō Arterial Link to provide a clear demarcation between sensitive residential activities, and heavier effects-generating industrial ones – like Contact’s power stations and steamfield activities including well drilling and testing operations. When making investment decisions such as a recent \$300M addition to its Te Huka plant, Contact relies on planning tools – such as the District Plan – to maintain this clear boundary.

## **CONCLUSION**

43 With 25 existing geothermal and hydro power stations in the Taupō District (and two more geothermal power stations under construction), REG is one of the most significant industries in the Taupō District. Protecting the operational integrity of existing REG and facilitating the development of additional REG is critical to addressing climate change by decarbonising the New Zealand economy.

44 The Taupō District Plan plays an important role in the achievement of that outcome but avoiding the establishment and/or expansion of incompatible land uses within areas that have been identified and consented for the current operation of REG along with ensuring that investment decisions can be confidently made in relation to additional future development of REG in the Taupō District.

**Michael Stevens**

**9 August 2023**