

**BEFORE THE HEARING PANEL CONSTITUTED BY THE OTAGO REGIONAL
COUNCIL**

IN THE MATTER of the Resource Management Act 1991

AND

IN THE MATTER of submissions on the Proposed Otago
Regional Policy Statement 2021

AND

(excluding parts determined to be a
freshwater planning instrument)

IN THE MATTER

of submission and further submissions by
Meridian Energy Limited

STATEMENT OF EVIDENCE OF ANDREW BAZEL CONRAD FEIERABEND

FOR

MERIDIAN ENERGY LIMITED

23 November 2022

Solicitor acting:

Humphrey Tapper

In-house counsel

287–293 Durham St North

Christchurch Central

Christchurch 8013

humphrey.tapper@meridianenergy.co.nz

Counsel acting:

John Maassen

— BARRISTER —

✉ john@johnmaassen.com

🌐 johnmaassen.com

☎ 04 914 1050

📠 04 473 3179

QUALIFICATIONS AND EXPERIENCE

- 1 My name is Andrew Bazel Conrad Feierabend.
- 2 I hold the qualification of a Bachelor of Regional Planning from Massey University. I have approximately 33 years of experience in planning and resource management matters, all gained within the local government sector and electricity industry.
- 3 Since my employment with Meridian Energy Limited (**Meridian**) in 2010, I have responded to multiple statutory plans relevant to Meridian's hydro and wind assets and renewable development options within New Zealand.
- 4 My focus has been on the South Island where Meridian's key hydro assets exist, being the Waitaki (exclusive of the Tekapo A and B power scheme) and Manapōuri Hydro Electric Power Schemes.
- 5 For Canterbury, this has included responding to the Canterbury Regional Policy Statement's preparation and process, and the Waimate District Plan, and participating in Plan Changes 13, 15, 18 and 19 to the Mackenzie District Plan. For Southland, this has included participating in the Southland Regional Policy Statement preparation and process, changes to the operative Southland Regional Water Plan, and the Proposed Southland Water and Land Plan.

PURPOSE & SCOPE OF THIS EVIDENCE

- 6 The purpose of my statement is to assist the Commissioners in understanding the need for the Proposed Otago Regional Policy Statement 2021 (**pORPS**) to provide for renewable energy development within the Otago region, and the importance of renewable energy development in the national effort to reduce greenhouse emissions to meet the aims of the Climate Change Response Act 2002.
- 7 In my statement I:
 - (a) Provide a brief overview of Meridian, its purpose, portfolio, and its current development aspirations.
 - (b) Identify the key issues Meridian is engaging in through the development of the pORPS, the reasons why, and the relief it is seeking.
 - (c) Briefly describe the importance of enabling renewable energy provisions in the pORPS and the role this plays in New Zealand

meeting its climate change commitments and targets as it transitions to net zero greenhouse emissions and decarbonises the economy.

(d) Provide a general description of future demand forecasts and the need for new renewable energy to displace non-renewable energy sources to meet New Zealand's growth and development aspirations while recognising the importance of the existing hydroelectric power schemes in maintaining a stable electricity system.

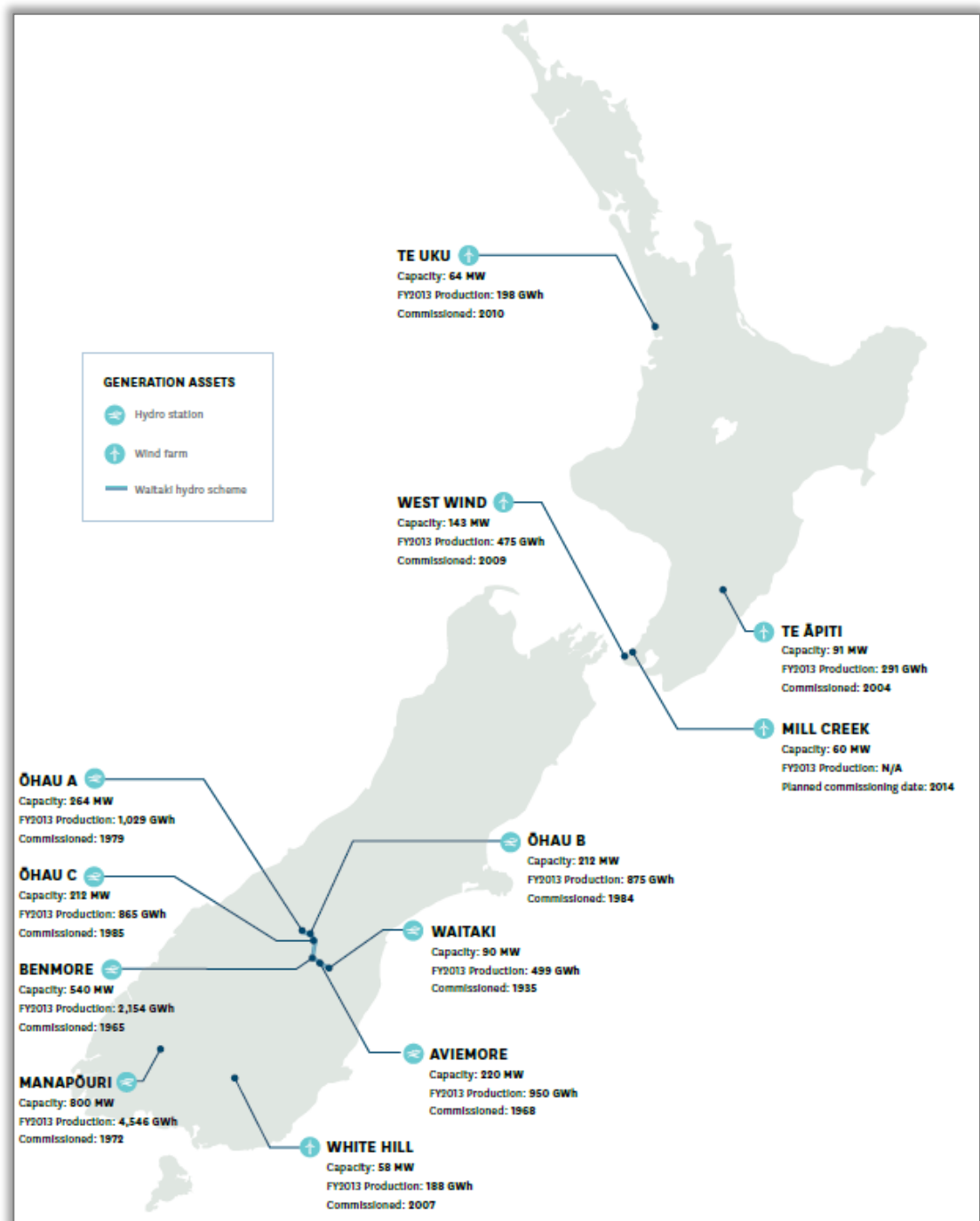
- 8 In presenting this evidence, I have read the relevant sections of the pORPS and supporting documentation relating to Meridian's interest in this Plan, including the Section 42A report prepared by the Council. I have also read the expert planning evidence prepared on behalf of Meridian by Ms Sue Ruston.
- 9 I am authorised to present this evidence as a representative of Meridian and on behalf of the Company. This evidence is factual in its basis rather than based on expert opinion.

MERIDIAN ENERGY LIMITED – AN OVERVIEW

- 10 In this section, I provide an overview of Meridian's activities as an operator and developer of renewable energy.
- 11 Meridian is listed on the New Zealand and Australian stock exchanges and is 51% owned by the New Zealand Government.
- 12 Much of Meridian's generation portfolio is the product of major investment by the New Zealand Government with long-term objectives to achieve New Zealanders' social, health and economic well-being.
- 13 Meridian is a renewable energy generator and electricity retailer. Meridian is committed to generating electricity from 100% renewable sources – water, wind and solar. The company generates around 30% of New Zealand's current electricity production.
- 14 Meridian's core business is the generation, marketing, trading, and retailing of electricity and the management of associated assets and ancillary structures in New Zealand.
- 15 Meridian currently doesn't own any generation assets in the Otago region, but is actively investigating renewable resource options in the region, as in other parts of New Zealand.

- 16 Meridian owns and manages two hydropower schemes in New Zealand: the Waitaki Power Scheme (from Lake Pūkaki down and comprising six power stations) and the Manapōuri Power Scheme.
- 17 Meridian owns five wind farms in New Zealand: Te Uku (Raglan), Te Āpiti (Manawatu), Mill Creek (Wellington), West Wind (Wellington) and White Hill (Southland). It is currently constructing a new wind farm at Harapaki in Hawkes Bay.
- 18 Meridian's hydro stations generate enough electricity to power approximately 1.7 million homes each year. Its wind farms generate enough electricity to power approximately 190,000 homes each year. Meridian's generation portfolio is summarised in Figure 1 on the following page.
- 19 Meridian retails electricity across New Zealand, with around 290,000 customers supplied through its Meridian and Powershop brands. Meridian's largest customer is the New Zealand Aluminium Smelter at Tiwai Point near Bluff. The smelter consumes around 13% of New Zealand's national production, equivalent to approximately 37% of Meridian's annual average generation production.

Figure 1 – Meridian's generation portfolio



MERIDIAN'S INTEREST IN THE PROVISIONS OF THE PORPS

20 Meridian has an interest in the pORPS because Meridian actively seeks opportunities for new renewable energy resources in the Otago region. Plan frameworks must recognise the importance of renewable energy development to ensure that any investment has an appropriate planning platform. The focus of Meridian's interest is, therefore, to ensure the pORPS:

- (a) Provides an enabling policy framework for renewable energy development given the directions of the National Policy Statement Renewable Energy Generation 2011 (NPS REG) and the National Policy Statement for Freshwater Management 2020 (NPSFM 2020).
 - (b) Recognises that the Otago region has a significant role in providing, maintaining, and increasing renewable energy output in the context of decarbonising the New Zealand economy and responds appropriately by providing an integrated response to climate change. Every region needs to contribute to that enterprise while recognising that resource potential is not evenly spread across New Zealand.
 - (c) Provides an integrated plan response that enables the development of new and existing renewable energy activities while appropriately reconciling conflicts arising from using natural resources.
 - (d) Appropriately gives effect to the concept of Te Mana o te Wai and the associated hierarchy of prioritisation for freshwater as set out in the NPSFM 2020.
 - (e) Appropriately reconciles the freshwater provisions of the Plan with those parts of the Plan that are not freshwater based.
- 21 Meridian has collaborated with other generators and electricity operators to prepare a suite of provisions for consideration by the Panel. Meridian considered this approach helpful for the Panel. However, for clarification, Meridian promotes these provisions because they are jointly considered appropriate and sufficient, in the Otago setting currently.
- 22 Meridian does not necessarily consider these provisions to be a template to advance in other regions. Rather they are a minimum expectation based on the fundamental directives in the NPSREG. In other regions, the particular opportunities and constraints of the region (including the presence of large renewable electricity generation schemes or potential for further development) should be reflected in the strategic objectives of policy statements and plans, and the planning provisions that follow should reflect this.
- 23 Meridian understands that a regional policy statement should move the policies in national policy statements along, with increasing detail, to reflect in the opportunities and constraints within the region.
- 24 Meridian is concerned that the pORPS does not sufficiently draw out, or respond to the regional context, and is equally concerned that much of the

s42A Report responses to Meridian's submissions appear to block implementation of the NPSREG in a manner that is nuanced to the opportunities and constraints within the region.

- 25 The pORPS is to be considered in two parts by different decision-makers. That is an outcome of the recent High Court decision¹ on the Plan. Meridian is focused on ensuring that the separate parts of pORPS (freshwater decisions and the remainder of the Plan) continue to provide for the integrated management of physical and natural resources in the Otago region while providing for a prioritisation of resource use for renewable energy, given national climate change targets. This is particularly important in the context of giving effect to the NPS REG and NPSFM 2020 and the implementation of the concept of Te Mana o te Wai.
- 26 Meridian seeks changes to the pORPS to achieve the above outcomes. Meridian is proposing a suite of changes to create a strong and definitive set of linkages between the respective sections of the Plan in the context of the use of natural resources and the development of renewable energy development in the region.
- 27 More specifically, the changes relate to Parts 2 and 3 of the pORPS, which deal with the significant resource management issues for the region, integrated management, the natural domains and how these sections relate to the 'Energy, infrastructure, and transport' section. The specific changes requested are substantively dealt with through the planning evidence of Ms Ruston.
- 28 Notably, the Generator Collective is requesting the 'Energy, infrastructure, and transport' section of the Plan be amended. The amendment aims to separate the infrastructure and energy sections so that they work independently. The rationalisation will remove the provisions that create unnecessary duplication and reduce the scope of the reconciliation task while providing certainty for Plan users about what provisions apply to renewable energy. In that way, the Plan provides policy direction for the protection of existing generation while providing for consenting new renewable energy activities.

¹ Otago Regional Council v Royal Forest and Bird Protection Society of New Zealand Incorporated [2022] NZHC 1777 [22 July 2022]

NEW ZEALAND CLIMATE CHANGE LEGISLATION AND TARGETS – GREENHOUSE GAS EMISSIONS

- 29 Meridian considers it has a role in assisting achievement of government targets and aspirations for the reduction of greenhouse gases through the development of new renewable energy resources. The Government's current targets and intentions are set out below:
- (a) NZ has signed and ratified the Paris Agreement² and is committed to reducing greenhouse gas emissions to 30% below 2005 levels by 2030.
 - (b) The Zero Carbon Act came into force in 2019 and has committed NZ to achieving zero greenhouse gas emissions by 2050.
 - (c) The NZ Government has set a target of 100% renewable electricity generation by 2035 (in an 'average hydrological year').
 - (d) The Government has committed to planting 1 billion trees by 2028 as a carbon sink (carbon storage)³.
 - (e) New Zealand has signed up to the Powering Past Coal Alliance, which commits the country to phase out the use of coal in electricity generation by 2030.
- 30 The Resource Management Act requires persons exercising functions and powers under this Act to have particular regard to the effects of climate change and the benefits derived from the use and development of renewable energy in achieving the purpose of the RMA⁴. Meridian seeks that the above commitments and directions can be given appropriate effect through compatible policy responses in the pORPS.

ELECTRICITY DEMAND PROJECTIONS

- 31 Electricity demand in New Zealand has been relatively flat for the past decade as energy efficiency (LEDs, insulation, appliances, domestic heat pumps, industrial process improvements) has lowered the level of demand growth⁵.
- 32 Electricity demand is projected to increase over the next 30 years⁵. While all forecasts agree that demand will increase, there is uncertainty about the

² https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-7-d&chapter=27&clang=en

³ <https://www.mpi.govt.nz/funding-and-programmes/forestry/planting-one-billion-trees/>

⁴ Section 7(i) and (j) RMA

⁵ *Transpower 2018: Te Mauri Hiko – Energy Futures white paper*

size of the increase due to various factors such as future efficiency measures, technology changes, population increases, and changes in GDP.

- 33 Transpower expects that all forms of energy demand will grow over the next 30 years at least. They estimate a doubling of electricity demand by 2050⁵ (see Figure 2). Although the spread of projections from other government agencies is wide, all agree there will be an increasing electricity demand (see Figure 3).

Figure 2 – Estimated New Zealand electricity demand by sector⁵

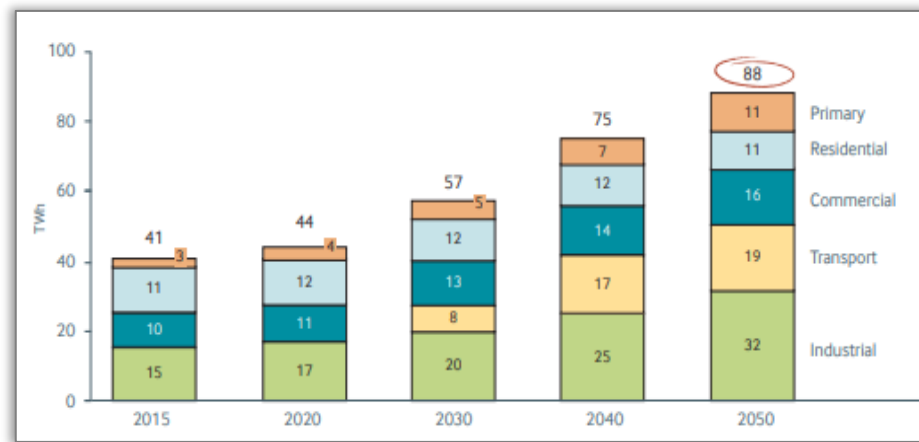
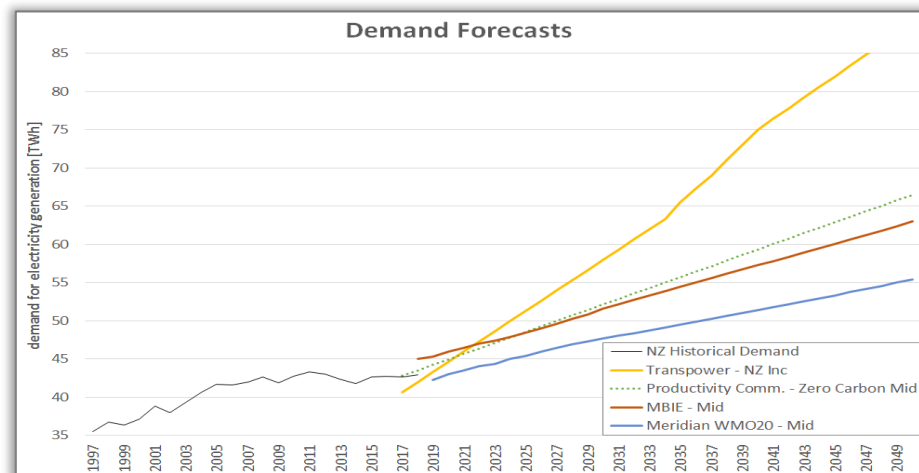


Figure 3 – Historical and forecast electricity demand in New Zealand 1997 to 2050, from Transpower⁵, Productivity Commission⁶, MBIE⁷, and Meridian Energy



- 34 Transpower projects significant electrification – the shift from energy sources such as coal, gas, and oil to renewable electricity⁵, while the rate at which transport and stationary energy (process heat, industrial boilers, etc) will convert to electricity is uncertain.

⁶ NZ Productivity Commission 2018: *Low-emissions economy: Final report* 620 pp. www.productivity.govt.nz

⁷ MBIE 2016: *Electricity demand and generation scenarios*, 26 pp, ISBN: 978-0-947524-28-9

- 35 There is broad consensus that these features describe a larger role for electricity in the future NZ economy and create a need for additional generation, the bulk of which must be renewable in nature if international climate obligations and current domestic government policy goals are to be met.
- 36 The construction of new renewable generation and the move away from non-renewables will happen over time as asset life cycles naturally require replacement, and generators respond to demand growth and the market opportunities this presents for commissioning new generation projects.

Future Generation Mix – Supplying Demand in a Renewable Electricity System

- 37 Demand growth and retirement of existing generation plant necessitate a significant ongoing role for new generation build. Wind, geothermal and solar is expected to dominate new options.
- 38 Strong international imperatives to reduce greenhouse gas emissions, as evidenced in New Zealand by the Zero Carbon Act, Powering Past Coal Alliance, and 100% Renewable electricity policy, mean that a significant increase in renewable generation share over time is expected, especially as the thermal plant is retired and new, cheap supply technologies come to market. If the above national targets are to be met, then streamlined, effective and efficient policy responses are required in statutory plan processes, including the pORPS.

CONCLUSIONS

- 39 The Government has set clear targets and directions to reduce greenhouse gas emissions and prioritise climate change action. To achieve this, the New Zealand economy must be decarbonised.
- 40 Central to achieving this ambition is reducing emissions by using renewable energy to electrify, amongst other things, the transport system and industrial processes in New Zealand. This will require significant future investment to develop new renewable energy activities, including using wind and solar resources to meet the expected demand.
- 41 The pORPS provisions are an important conduit to enable New Zealand to meet its climate change obligations and assist in achieving a 100% renewable energy target as set out above.

- 42 The pORPS is critically important in the context of providing for the maintenance of existing renewable energy activities and providing for the opportunity to enable the development of new options. For the pORPS to be effective, it needs to provide clear outcomes as to how this will be achieved and how conflicting resource use will be managed
- 43 Ms Ruston, in her expert planning evidence, addresses these issues in detail and provides the plan solutions and drafting to achieve the outcomes identified in this brief of evidence.

A handwritten signature in blue ink, appearing to read 'A. Feierabend', is positioned above the typed name.

Andrew Feierabend

Statutory and Compliance Strategy Manager, Meridian Energy

23 November 2022