

**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
(excluding parts determined to be a
freshwater planning instrument)

AND

IN THE MATTER of submissions and further submissions
by Meridian Energy Limited

**MEMORANDUM FOR HEARING PANEL BY MERIDIAN ENERGY
LIMITED FOLLOWING HEARING ON MONDAY 13 MARCH 2023**

DATED 23 MARCH 2023

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MAY IT PLEASE THE PANEL:

Succinct summary

- [1] Commissioner Crosby noted that the energy companies' witnesses referenced various 'targets', some from non-official sources, including Ministerial statements. Mainly, these items of evidence expressed in multiple ways future renewable energy capacity requirements based on different levels of renewable supply and timeframes. None of these, Commissioner Crosby observed, appeared to exactly fit the type of official national target referred to in the NPS-REG 2011's single Objective. That led to an observation that perhaps central government had not established a specific target under NPS-REG.
- [2] Meridian's key submission points in response to Commissioner Crosby's reflections are in summary:
- (a) The NPS-REG target is clear and is the level of renewable energy production capacity (90%) required to meet present and projected future electricity demand. The target referred to in NPS-REG is to achieve at least the level of 90% renewable electricity production as recorded in the Statement's Preamble¹ and affirmed close to the Statement's Gazettal (as the Preamble notes) in the New Zealand Energy Strategy 2011–2021 (*The NPS-REG target*).² That percentage level of production is only timebound by a specific date in that it is to be achieved by 2025³ from a starting level of 74%⁴ in 2011. Meridian contends that local authorities must aim to sustain that target level while the NPS-REG is in force by implementing NPS-REG in planning instruments using a reasonable planning horizon to assess renewable energy capacity requirements.
 - (b) The differences in the assessment of renewable generation capacity requirements in the generator's evidence do not lie in uncertainty

¹ NPS-REG. The Preamble forms part of the instrument unlike the explanatory notes.

² [Developing our energy potential and the New Zealand Energy Efficiency and Conservation Strategy 2011–2016, NZ Government MBIE](#)

³ NPS- REG, Preamble.

⁴ Fn 2 at p2.

about the NPS-REG target level but arise because of legitimate differences concerning:

- (i) Whether it is appropriate to use 100% renewables because NPS-REG Objective aims to meet or exceed the target percentage of 90%, the 100% level has some pedigree arising from Parliament enacting the Climate Change Response Act 2022 (“CCRA”); and recent government announcements.⁵
 - (ii) The relevant planning horizon. Some witnesses addressed the 2030 renewable energy needs. Meridian considers 2050 as the correct planning horizon to scale renewable energy capacity needs because of CCRA’s *2050 target*. Consequently, the New Zealand Government is developing the New Zealand Energy Strategy alongside its national energy budgets to meet that *2050 target*.
- (c) In assessing the national renewable energy infrastructure needed to sustain the *NPS-REG target* over a reasonable planning horizon, one must:
- (i) Assume electricity generation will meet demand if economically viable;
 - (ii) Demand is a function of existing demand and growth in demand.

The factors influencing demand make up the ‘energy demand context’.

- (d) The CCRA has transformed the *energy demand context* because it seeks net zero GHG emissions as the *2050 target* replacing the aim referenced in the New Zealand Energy Strategy 2011–2021 of a 50% reduction of GHG emissions below 1990 levels. Increased electricity demand will now be from the growth of usual sources of

⁵ See for e.g. [recent announcement of Hon. Megan Woods](#).

electricity demand and significant substitutionary demand⁶ minus efficiencies and mitigation.⁷

- (e) A recent report from Transpower, “Whakamana i te Mauri Hiko” illustrates the reality of the new *energy demand context*.⁸ Transpower has now been commissioned under New Zealand’s first Emissions Reduction Plan⁹ under CCRA to model energy scenarios. That is *Action 11.2.2: Ensure the electricity system and market can support high levels of renewables* in the Emissions Reduction Plan. Whakamana i te Mauri Hiko was made before this action point.
- (f) Transpower, in Whakamana i te Mauri Hiko at p 33, states New Zealand needs to build 6 GW of wind generation and 6 GW of solar capacity in the next 30 years to keep up with demand from electrification. That is equivalent to 92 wind or solar farms (the same size as New Zealand’s newest wind farm, the Waipipi wind farm) in 30 years. That is a magnitude and speed of infrastructure building that New Zealand has never seen before.
- (g) The Panel must accept Parliament has set the *2050 target* in CCRA s 5Q. Therefore, New Zealand's *energy demand context* must now be assessed recognising New Zealand is on a trajectory to net zero GHG emissions. The mahi of meeting the *NPS–REG target* in that *energy demand context* is enormous irrespective of whether one uses:
 - (i) A 90% target or a 100% target;
 - (ii) A horizon of 20 years or 30 years.

It is even a large enterprise ignoring substitutionary demand.

⁶ That is demand previously met by fossil fuels.

⁷ Mitigation includes tree planting and sequestration technologies.

⁸ Transpower, Whakamana i te Mauri Hiko, [Empowering our Energy Future March 2020](#)

⁹ [First Emissions Reduction Plan](#). Action Action 11.2.2: “Ensure the electricity system and market can support high levels of renewables”

Context of New Zealand's international commitments concerning GHG emissions reductions

- [3] As noted in Meridian's primary submissions, national policy statements are treated as secondary legislation to be construed according to the Legislation Act 2019, which makes the 'context' relevant.
- [4] International instruments of New Zealand concerning climate change goals are relevant context¹⁰ and inform the following:
- (a) The appropriate recognition of the benefits of renewable energy as directed by Sub-Objective A and Policy A in NPS-REG.
 - (b) To appreciate the *practical implications of achieving New Zealand's target for electricity generation from renewable resources* under Sub-Objective B;
 - (c) To scale the degree to which meeting and sustaining the target will *require the significant development of renewable electricity generation activities* under Sub-Objective B, Policy B.
 - (d) The enduring nature of the CCRA regime affects the *energy demand context*.
- [5] The relevant international covenants demonstrate the need for a long-term commitment to renewable energy development. These commenced with the Kyoto Protocol, with the 2nd Kyoto commitment approved around the same time as the NPS-REG for the long-term management of GHG emissions.
- [6] On 12 December 2015, New Zealand adopted at the UN Climate Change Convention (COP21) in Paris (*the Paris Agreement*) an overarching goal to *hold the increase in the global average temperature to well below 2°C above pre-industrial levels* and to pursue efforts to *limit the temperature increase to 1.5°C above pre-industrial levels*. The UNFCCC at its website states:¹¹

Implementation of the Paris Agreement requires economic and social transformation based on the best available science. The Paris Agreement works

¹⁰ LoNZ Statutes, Statutory Interpretation: External Contextual Guides pt V - see para 165 The Laws of New Zealand; and Carter, Statute Law 5th Edn Lexis Nexis. Chapter 15

¹¹ <https://unfccc.int/process-and-meetings/the-paris-agreement>

*on a five-year cycle of increasingly ambitious climate action -- or ratcheting up -
- carried out by countries. Since 2020, countries have been submitting their
national climate action plans, known as nationally determined contributions
(NDCs). Each successive NDC is meant to reflect an increasingly higher degree
of ambition compared to the previous version.*

- [7] To reinforce their importance to the CCRA framework, the articles of the Kyoto Protocol and Paris Agreements are annexed to the CCRA.

CCRA 2022

- [8] The purpose of the CCRA, following the Kyoto Protocol and the Paris Agreement, is to develop a framework to:¹²
- (a) Contribute to the global effort under the Paris Agreement to limit the global average temperature to 1.5°C above pre-industrial levels.
 - (b) Allow New Zealand to prepare for and adapt to the effects of climate change.
- [9] Under the CCRA, a more ambitious, wide-ranging and sophisticated approach to GHG emissions reduction is established. That includes the development of an Emissions Reduction Plan for each emission budget period defined in the CCRA to achieve the *2050 target*. The first Emissions Reduction Plan is available from the Ministry for the Environment website.¹³
- [10] That *2050 target* and the framework to achieve it is addressed in the CCRA in Part 1B at s 5Q onwards. The *2050 target* is a defined term to reach net zero greenhouse gas emissions by 2050 under s 5Q(1)(a).¹⁴
- [11] The *2050 target* will be achieved by energy budgeting for the prescribed energy budget periods using plausible energy demand, substitutionary and mitigation scenarios over emission budget periods.

¹² [CCRA, s 3](#)

¹³ [First Emissions Reduction Plan.](#)

¹⁴ [CCRA, s 5](#)

- [12] Meridian contends that to achieve the *2050 target*, it will be necessary to reach close to 100% renewable electricity for:
- (a) All existing and new demands for electricity; **and**
 - (b) growth in renewable energy supply to replace current fossil fuel use and all future energy demand.

The NPS-REG and its target

- [13] The NPS-REG should be:
- (a) Interpreted following the Legislation Act, s10.¹⁵
 - (b) Applied to circumstances as they arise under Legislation Act, s11. In this case, the *energy demand context* informs the significance of most policies in the NPS-REG and the requirement to sustain the 90% target..
 - (c) The other side of the coin of (b) is the NPS-REG is always speaking while in force.
- [14] The target referred to in the NPS-REG Objective is a level of generation of 90% of electricity generated from renewable sources. Please refer to the third paragraph of the Preamble to NPS-REG. That is derived from the affirmation of that generation level in New Zealand Energy Strategy 2011–2021. The 2025 achievement date recognises that in 2011 the generation level was well below that level. It does not mean that the target if achieved in 2025, the GHG reduction project ceases despite increasing so that planning for renewable energy ceases to matter. The reasons for that are somewhat obvious and include:
- (a) The context of the NPS-REG is achieving the long-term project of GHG reductions to meet New Zealand’s international climate change commitments.

¹⁵ See Meridian’s primary submissions establishing National Policy is Secondary Legislation.

- (b) The broader NPS-REG aims can only be achieved when applied to meet anticipated electricity demand over reasonable timeframes.
- (c) The reference to 2025 in the NPS-REG only functions to make the 90% level timebound, not to ossify the instrument, so there is no long-term planning for renewable energy beyond that date. To read the instrument any other way would be unreasonable.
- (d) The companion strategy, called New Zealand Energy Strategy 2011–2021, was for a defined period to provide a clear pathway but in the context of meeting long-term GHG reductions over the long term to meet New Zealand’s international commitments, i.e. beyond 2025.

[15] The NPS-REG Objective aims to achieve a proportion of New Zealand’s electricity generation that *meets or exceeds* the New Zealand Government’s national target.¹⁶ The point about exceeding the target is emphasised. Meridian’s submission is that any decision-maker today should, in light of the current circumstances,¹⁷ aim to exceed the national target percentage of renewable electricity generation. Meridian acknowledges to meet peak demand, some fossil fuel contribution will be required to provide security of supply. So Meridian does not assume 100% renewables will achieve acceptable levels of security of supply. But it will have to be close to that percentage to meet the *2050 target*.

[16] The NPS-REG Objective must assume that renewable electricity generation will supply the requisite proportion of energy arising from growth in demand. Hence, the Preamble of NPS-REG in paragraph 2 states:

New Zealand’s energy demand has been growing steadily and is forecast to continue to grow. New Zealand must confront two major energy challenges as it meets growing energy demand. The first is to respond to the risks of climate change by reducing greenhouse gas emissions caused by the production and use of

¹⁶ NPS-REG, Objective.

¹⁷ Including the current Emissions Reduction Plan under Climate Change Response Act 2002. New Zealand has also signed up to the Powering Past Coal Alliance, which commits New Zealand to phasing out coal in electricity generation by 2030.

energy. The second is to deliver clean, secure, affordable energy while treating the environment responsibly.

Conclusion

- [17] There is a target level of renewable energy capacity to meet New Zealand's needs of 90% of electricity generation. The future required renewable energy capacity to meet the target is in plain sight, considering the new *energy demand context* under the CCRA. A major report by the International Energy Agency¹⁸ states that a major, rapid scaling up of wind and solar capacity is required globally, equivalent to installing the world's current largest solar park every day, to meet net zero by 2050 goals. In New Zealand, Transpower has quantified the need for new renewable energy builds as equivalent to over 90 new wind or solar farms in the next 30 years. This need, along with the evidence of the generators and literature relating to NZ's first Emissions Reduction Plan, is reliable evidence of the implications for the 'zero net GHG by 2050' trajectory.
- [18] The transformed *energy demand context* created by the *2050 target* results in a corresponding increase in the heft of the Objectives and Policies in NPS-REG 2011 directed to the renewable energy target level, as argued in Meridian's primary submissions. Even without the *2050 target*, the renewable energy target level was demanding to sustain growth in electricity demand over reasonable planning horizons.
- [19] Against this context, the *Generator Collective's Provisions* for PORPS is an appropriate proposal with offsets and other mitigations to ensure environmentally responsible renewable energy development. The discrete package for renewable energy reflects the discrete treatment of renewable energy generation as a pressing environmental issue under the NPS-REG.

¹⁸ [EIA report](#)

A handwritten signature in blue ink, appearing to read 'J W Maassen', with a horizontal line extending to the right from the end of the signature.

J W Maassen
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