

Meridian Energy Limited

Fast-track Referral Application – Waiinu Energy Park

Strategic Alignment and Economic Benefits Assessment

Introduction

This assessment has been prepared to support the referral application made by Meridian Energy Limited (Meridian) for the Waiinu Energy Park Project in accordance with Section 13 of the Fast-track Approvals Act 2024. In particular, it addresses several of the criteria for accepting a referral application under Section 22 of the Fast-track Approvals Act 2024, including whether the project:

- has been identified as a priority project in a central government, local government, or sector plan or strategy, or a central government infrastructure priority list
- will deliver new regionally or nationally significant infrastructure or enable the continued functioning of existing regionally or nationally significant infrastructure
- will contribute to a well-functioning urban environment by supporting reductions in greenhouse gas emissions
- will deliver significant economic benefits.

Overview

Waiinu Energy Park is a proposed large-scale renewable energy park of a nationally significant scale which includes wind turbines, solar array, battery energy storage system (BESS), transmission and grid connection, access roads and associated supporting project infrastructure.

Straddling the boundary between south Taranaki and western Manawatū-Whanganui, the project site would enable an excellent use of the natural resources in the two regions and is located near to a part of the national electricity grid with capacity to export the planned generation. Waiinu Energy Park will supply renewable energy to the National Grid for the benefit of New Zealand homes and businesses.

The Project is expected to bring significant economic benefits at a local, regional, and national level. It is one of the largest economic renewable energy development opportunities in New Zealand that Meridian is aware of, with the capital investment to construct the project being around **\$1.5 billion**, based on the maximum generation capacity of the site. Further, due to the scale of the project, significant investment will be required during operations with estimated annual operational costs of **\$28m per year** for the lifetime of the project.

The Project will create a substantial number of additional jobs during the construction period, with an estimated peak of 300 to 350 direct full-time equivalent jobs required. Over the construction period, which could be up to five years, the total number of individuals working on the project could exceed 3000, based on Meridian's experience of building the Harapaki wind farm in Hawke's Bay, completed in 2024. It is estimated the indirect employment benefit to the region would be an additional 40 to 60 full-time equivalent jobs. The

economic benefit from additional employment in the area will continue during operations with up to 15 to 20 direct full-time equivalent jobs for the lifetime of the project.

New Zealand is confronted with an unprecedented need to develop new renewable generation to electrify the country and the economy. An estimated 1,250GWh of additional renewable energy will need to be generated each year until 2050. This is equivalent to building a new West Wind farm project every five months until 2050. To put this into perspective, over the past 30 years leading up to 2020, an average of 380GWh of new renewable energy was commissioned.¹

Electrification and decarbonisation goals, and retirement of older thermal and renewable plant will increase the need for new energy projects in the coming years. Reflecting their lower construction and operating costs when compared to other forms of creating new energy, the majority of new generation projects will be renewable in nature, with wind, solar, and geothermal all expected to contribute strongly in meeting our future energy needs. Since much of this new energy will be intermittent in nature, with output not guaranteed from hour-to-hour, significant additional flexibility, such as is available from BESS, will be required. Electrification of transport and stationary energy will add to this growth, as will satisfying any new sources of demand, such as international data centres and new green industries. The scale of this challenge means investment in large grid-level projects is needed, beyond what can be satisfied via roof-top solar, domestic load management, and the like. There is broad agreement from a range of industry and public organisations that significant amounts of new renewable energy and flexibility will be required over the decades ahead.

The scale and size of Waiinu Energy Park will significantly contribute to New Zealand meeting these targets. The Project would contribute massively to the electrification of New Zealand and its economy, generating up to 1,760 GWh of electricity per year. This is enough electricity to power the equivalent of nearly 253,000 average New Zealand homes. Therefore, the proposed project will provide significant national and regional benefits, through assisting New Zealand to meet government-stated renewable electricity generation targets, and supporting growth and productivity.

Effect of Fast Track in Accelerating the Project

The project spans four councils, each with its own planning and consenting frameworks that need to be navigated. A wildlife permit and an archaeological authority are also required.

It is anticipated that the Fast-track process will result in quicker decisions which will enable Meridian to deliver the required pipeline of renewable electricity projects throughout New Zealand in a timely manner. Fast decision making will also ensure Meridian is able to provide a continuous supply of construction work to key skilled staff and contractors which will help sustain the New Zealand construction industry.

Considering Meridian's recent experience of the consenting process for renewable energy projects, it is anticipated that progress through the Fast-track process could accelerate consent approval by more than 18 months. This would accelerate the project development timeframe and reduce development expenditure, improving the overall project economics. In short, a more timely consent approval timeframe would enable the significant investment planned during construction to be brought forward and the national and regional benefits of the project during construction and operation to be realised sooner than otherwise would be achieved.

A Power Market Under Stress and Benefits to Consumers

¹ See Concept Consulting Report *Renewable Generation Development Implications of Decarbonisation Through Electrification*, NBEA Electrification Implications V.05.0 August 2022

The NZ power market is under significant stress today and has been since 2018. The forward price curve for power (ASX) has softened recently but remains high, sitting around \$150/MWh at Auckland until the end of 2029, while the firming lifetime costs of building new generation are closer to \$110-130/MWh. Supply availability issues at all of NZ’s gas fields have led to high prices for gas or even a total lack of gas availability in some instances. Gas supply issues have been on-going since 2018 and there is little sign that the situation is improving. Other international thermal fuel prices that NZ relies on (especially thermal coal) have also experienced strong increases over this same period. These factors all came to a head in winter 2024, when a lack of hydro inflows added to these underlying tensions, briefly driving power prices to over \$800/MWh. While the importation of international LNG in the future may improve physical security of supply during a dry-year, LNG is not a cheap fuel, at \$200-250/MWh for every unit of gas burnt, with significant capital costs to pay for on top of this.

At the same time, general inflationary pressures (over 25% since 2020), exchange rate movements, and more expensive financing are now reflected in higher costs of new renewable project construction. Planning uncertainty has been particularly prevalent throughout this period due to a lack of credible information about the state of NZ’s gas reserves, combined with on-going Covid economic uncertainties and the Tiwai Pt strategic review announced in 2019 which indicated a possible closure of 13% of NZ’s total demand for power. While Tiwai’s on-going future in NZ was resolved in 2024, uncertainty in other areas remains, with US trade tariffs, and now the Iranian conflict being the latest examples. Despite this chronic uncertainty, and the long lead times for the consenting and constructing of new power projects, a large wave of new generation is underway. Since 2020 10,000 GWh and \$9.5 billion of new generation projects have been committed to by a range of companies (both incumbent and new entrant) across a range of technologies, all of it funded by private capital. This is a good start, but more is needed if the gap between current power prices and build costs is to close, consistent with the original goals of power market design. Streamlining of consent processes will be a critical enabler to achieve this.

The easing in power system stress that any additional energy and storage management can unlock, if consented and pursued at pace, can help to bring down forward prices while still allowing profitable new generation projects to proceed. The 1,760 GWh of new annual energy that Waiinu Energy Park can supply can help lower prices for NZ, while still allowing profitable new generation projects to proceed. The sooner this can happen, the better for everyone.

Alignment with Regional and National Strategies and Plans

This project is highly consistent with applicable policies for electricity and climate change. Furthermore, the project is directly consistent with New Zealand’s national and international commitments in relation to climate change and supports the achievement of the targets in the Country’s Emission Reduction Plan (ERP) and Paris Obligations. Table 1 below summarises the alignment of the Project with government strategies and plans.

Table 1: Assessment of Waiinu Energy Park development with Relevant Plans and Strategies

Plan or Strategy	Assessment
Central government plan or strategy	NPS–REG – Waiinu Energy Park puts into effect the objective and associated policies of the NPS to develop, operate, maintain renewable electricity generation activities throughout New Zealand.
Local government plan or strategy	Regional Policies – Horizons One Plan RPS – includes several objectives and policies that provide for the establishment, operation, maintenance and upgrading of infrastructure and an increase in the use of renewable energy

Plan or Strategy	Assessment
	<p>resources in the region. This is in line with the NPS-REG. The Taranaki RPS has similar provisions.</p> <p>District Plans – STDC and WDC district plans have a supportive policy framework in providing for new and existing renewable energy generation activities whilst ensuring adverse environmental effects are avoided, remedied or mitigated.</p>
Sector plan or strategy	<p>New Zealand Energy Strategy – The strategy will support the electrification of New Zealand’s economy, and address strategic challenges in the energy sector,. As of November 2023, the <i>“Government’s 2050 vision for energy and industry is for Aotearoa New Zealand to have a highly renewable, sustainable, and efficient energy system that is accessible and affordable, secure and reliable, and supports New Zealanders wellbeing. It has committed to reaching net zero for long-lived gases by 2050, set a target that 50% of total energy consumption will come from renewable sources by 2035, and has an aspirational target of 100% renewable electricity by 2030.”</i>² Waiinu Energy Park is consistent with this Strategy.</p>
Central government infrastructure priority list	<p>Rautaki Hanganga o Aotearoa New Zealand Infrastructure Commission 2022–2052 Strategy³ – One of the principal matters the Strategy focuses on is electrification, enabling a new-zero carbon emissions Aotearoa. It acknowledges clean electricity is key to that goal, and that over the next 30 years we’ll need to build significantly more low-emissions electricity generation. The proposed Waiinu Energy Park development is consistent with this Strategy.</p>
Emissions Reduction Plan	<p>The Government’s Emissions Reduction Plan⁴ includes targets and actions to reduce greenhouse gas emissions. The Waiinu Energy Park will directly give effect to many of these including <i>“accelerate development of new renewable electricity generation across the economy”</i></p>

² MBIE (2024) New Zealand Energy Strategy. Retrieved from <https://www.mbie.govt.nz/building-and-energy/energy-and-natural-resources/energy-strategies-for-new-zealand/new-zealand-energy-strategy/>

³ New Zealand Infrastructure Commission (2022). Rautaki Hanganga o Aotearoa 2022 - 2052 New Zealand Infrastructure Strategy. Wellington: New Zealand Infrastructure Commission / Te Waihanga

⁴ [Aotearoa New Zealand's first emissions reduction plan \(environment.govt.nz\)](https://www.environment.govt.nz/emissions-reduction-plan)

Delivery of Regionally and Nationally Significant Infrastructure

The project will deliver regionally and nationally significant infrastructure as outlined below in Table 2.

Table 2: Infrastructure Significance Assessment

<p>National significant infrastructure</p>	<p>The project is a large proposal that makes a significant positive contribution to secure, least cost, renewable electricity generation. It strongly aligns with the achievement of nationally significant infrastructure development.</p> <p>Waiinu Energy Park could generate up to 1,760 GWh of electricity per year. This is enough electricity to power the equivalent of 253,000 average New Zealand homes – over 10% of the private dwellings in New Zealand.</p> <p>Waiinu Energy Park is expected to bring significant economic benefits at a local, regional, and national level. It is one of the largest economic renewable energy development opportunities in New Zealand that Meridian is aware of with the capital investment to construct the project being around \$1.5 billion, based on the maximum generation capacity of the site. Further, due to the scale of the project, significant investment will be required during operations with an estimated annual operational cost of \$28m per year for the lifetime of the project.</p>
<p>Regional significant infrastructure</p>	<p>The project will deliver infrastructure which is regionally significant due to the local economic benefits a development of this type and scale will provide during construction and operations. The project will increase diversity and resilience of the national and regional electricity system.</p> <p>Waiinu Energy Park will create a substantial number of additional jobs during the construction period, with an estimated peak of 300 to 350 direct full-time equivalent jobs at the peak of construction activities. It is estimated the indirect employment benefit to the region would be an additional 40 to 60 full-time equivalent jobs.</p> <p>The local community will benefit socially and economically during operations as the project will provide jobs to support ongoing operations and maintenance for the estimated 35-year lifetime of the project. Approximately 15 to 20 direct full-time equivalent jobs will be created for the operational lifetime of the project.</p>

Significantly Increasing the Supply of Energy

Waiinu Energy Park will increase the supply of renewable energy in New Zealand. Energy is essential to modern households and its role is often irreplaceable to activities and society. In this regard a secure, least cost and renewable electricity supply is vital to a well-functioning urban environment, housing and essential human needs.

The project will result in a number of local, regional and national benefits. At a national level, the project will contribute significantly to New Zealand's need for more electricity to meet forecast demand. The project will generate clean, reliable and cost-effective electricity to support New Zealand and its economy.

Significant Employment Benefits and Local Economic Investment

During the construction period, the project will provide significant employment opportunities. Construction experience for this type of project is normally a 7 day a week activity and includes shift work. Accordingly, the project will provide an intense period of economic and employment activity. Labour, materials, plant and machinery will be sourced locally as far as possible. Secondary economic benefits are expected during the construction phase due to the accommodation, food, and fuel requirements of the construction team.

Due to the large over dimension size of components that are required on site, local secondary roading networks will be upgraded providing a lasting benefit of improved efficiency and safety.

The proposed project will enable diversification of land-use and income to the 12 landowner farms which will be compatible with existing and modified farming and forestry activity. It will enable additional diverse use of existing primary production land.

For generation development sites, Meridian operates a community fund (the *Meridian Power Up Community Fund*). Each year, Meridian put their financial support where it is needed with the help of local Power Up panels, made up of community members who together choose which initiatives should receive funding. In the past 16 years, Meridian has undertaken a wide range of local projects, investing more than \$10 million into over 1,250 projects. If this proposal proceeds to construction a fund would be established for the local community with appropriate annual committed funding.

The Power Up Fund is an example of Meridian's commitment to contribute to the viability and vitality of the communities in which it operates, and in which its staff live. It is anticipated that over the course of the development of this project, Meridian would be able to similarly engage with the wider Waitōtara and Waiinu Beach community to ascertain where best to assist the community to achieve its aspirations.

Electrification of New Zealand Economy

New Zealand faces an unprecedented need to develop new generation to meet its climate change mitigation objectives, while maintaining security of supply at least cost possible. Figures 1 and 2, show actual generation from 1950 through to 2020, as well as projected levels to 2050 to meet Aotearoa New Zealand's climate change mitigation goals. Around 1,250GWh of new renewable generation will be required on average every year until 2050.

For additional context, an average of 380GWh of new renewable generation was commissioned annually in the 30 years to 2020, much of that was from geothermal and thermal sources. As such, New Zealand will need to be constructing around 300% more generation every year until 2050 than it has been over the past 30 years.

The graphs below are taken from the report prepared by Concept Consulting to independently assess the extent of new renewable generation required to achieve climate change targets⁵. The general assessments and conclusions are in broad agreement with other similar work that has also been undertaken for the Climate Change Commission, Transpower's predictions and modelling/assessments completed for MBIE.

⁵ See KC Opinion dated 10 June 2022, Appendix 4 – Report by Concept Consulting, pages 2- 3.

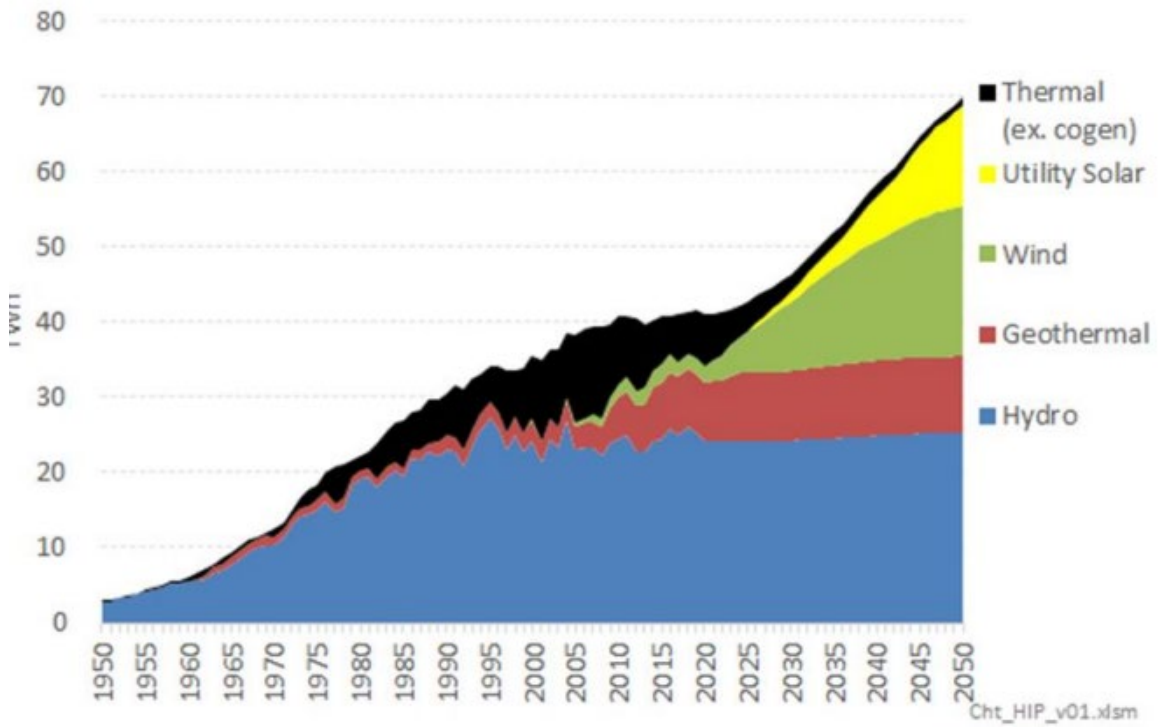


Figure 1: Central projection of generation levels

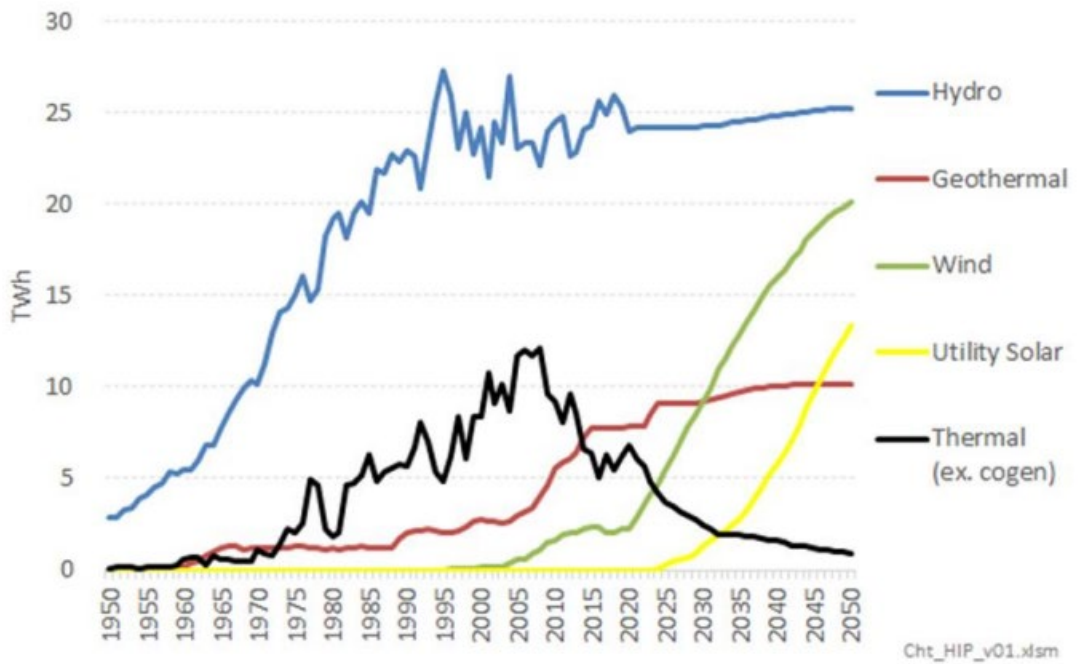


Figure 2: Central projection generation levels (by type)

The need to get new renewable projects up and running will only become more urgent. Adding up to 1,760GWh annual energy generation through the development and operation of the Waiinu Energy Park will add a significant amount of new renewable electricity to the National Grid.

An increasingly renewable electricity and energy system in New Zealand that is secure and delivered at least cost is a competitive advantage for New Zealand export-oriented businesses.

The project will support adaptation, resilience, and recovery from natural hazards. The site is not located in an area prone to climate change disruptive events and significant natural hazards and so should be able to continue to produce power when the site has sufficient wind and/or during daylight. In the event of natural hazards occurring, Meridian anticipates the renewable energy park, consisting of wind turbines, solar arrays, and battery energy storage system, to be part of the solution, continuing to generate and deliver power to the National Grid during a disaster and recovery period. New generation from diverse means and in diverse locations helps to provide resilience to regions and communities when recovery from disaster occurs – this was demonstrated following cyclone Gabrielle.

The project will address significant environmental issues. The project is a significant contribution to climate change mitigation and the electrification of New Zealand's economy.

The project is consistent with local or regional planning documents, including spatial strategies. Waiinu Energy Park will achieve the objectives of a number of NPS and NES. Waiinu Energy Park is consistent with the applicable Central (statutory and non-statutory), Regional and Local Government plans and strategies. While the wholesale electricity system is not centrally planned, the project is consistent with existing rural zoning and matches the proximity and availability of capacity in the national grid.