Kākāriki

Transpower - Tararua enabling new renewables: Major Capex Proposal

15 June 2026

Kākāriki

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Introduction

We strongly support the Transpower's Tararua enabling new renewables: Major Capex Proposal and the investigation of possible electricity infrastructure investments in Tararua and Wairarapa, to unlock significant new renewable generation potential and boost transmission capacity in the region. We agree that without **timely** upgrades to the existing regional grid, new generation will be constrained, impacting regional economic opportunities and national electrification. In addition, **we believe that accelerated investment in upgrades is required to enhance regional energy and economic resiliency - which has been highlighted in recent years by weather events and the exposure of the region to fossil fuel price volatility and long-term access to affordable gas supplies.**

The Tararua region and its connections to the wider Central North Island has been a key focus region for Kākāriki since we were formed in 2020. We have invested in project development across the broader region and worked closely with key local stakeholders such as CEDA and Tararua District Council and local iwi groups. In our submission we highlight our *Electrifying the Vision* initiative and how this is fully aligned with the need to upgrade the electricity infrastructure across the region. In our submission we have also included background material for Transpower to give you a better understanding of our vision and our pipeline of projects across the region.

We believe that upgrades to the existing 110 kV network, and the addition of 220 kV connection and interconnection assets in the region will be required to unlock new capacity and strengthen the local and national energy system and wider economy. Our submission highlights Bunnythorpe as a critical hub for New Zealand today and how it becomes even more important in the future with greater reliance on electricity as a source of energy and economic driver. Without an ambitious, accelerated and committed approach to the development of the necessary electricity infrastructure we believe that the Central North Island region will become less competitive and New Zealand will lose opportunities to support existing energy intensive industries and attract new industries will can underwrite investment in new transmission, generation and storage assets and help diversify the economy into the future.

Simon Currie
Executive Chairman

Kākāriki Overview & Vision

Kākāriki at a glance

New Zealand's largest independent renewable energy platform

Kākāriki Renewables is a New Zealand based renewable energy platform. Led by a team with a proven track record of delivering large projects, the portfolio is strategically positioned across New Zealand to meet high-growth demand regions. With a large and growing pipeline of wind, solar and storage projects, Kākāriki Renewables is delivering the clean energy infrastructure needed to rapidly expand the country's renewable capacity.

Vision and Strategic Focus

- Our vision is to power Aotearoa's transition to a low-emissions future by developing strategically located renewable energy and storage projects that create long-term value for communities, industry, and the climate.
- At Kākāriki, we passionately believe in the significance and immediacy of the opportunity to develop large-scale renewable energy projects and clean industrial precincts which can help meet New Zealand's decarbonisation goals and support new industries attracted by access to 24/7 clean energy. In 2021 we conceived and promoted the 600% Renewables campaign for New Zealand. 600% Renewables is now an achievable goal which will create enduring economic opportunities and aligns with the goals of our major trading partners. We take a regional approach to our development activities - focusing on the best renewable resources in each region and how our projects can drive decarbonisation and load growth at the regional level.

4 GW+
Renewable projects in phase 1 & 2

2 GW+
Storage capacity in phase 1 & 2

12 GW+
Total generation from projects (including pipeline)

Technology
Wind, solar, & storage projects across the portfolio

Kākāriki

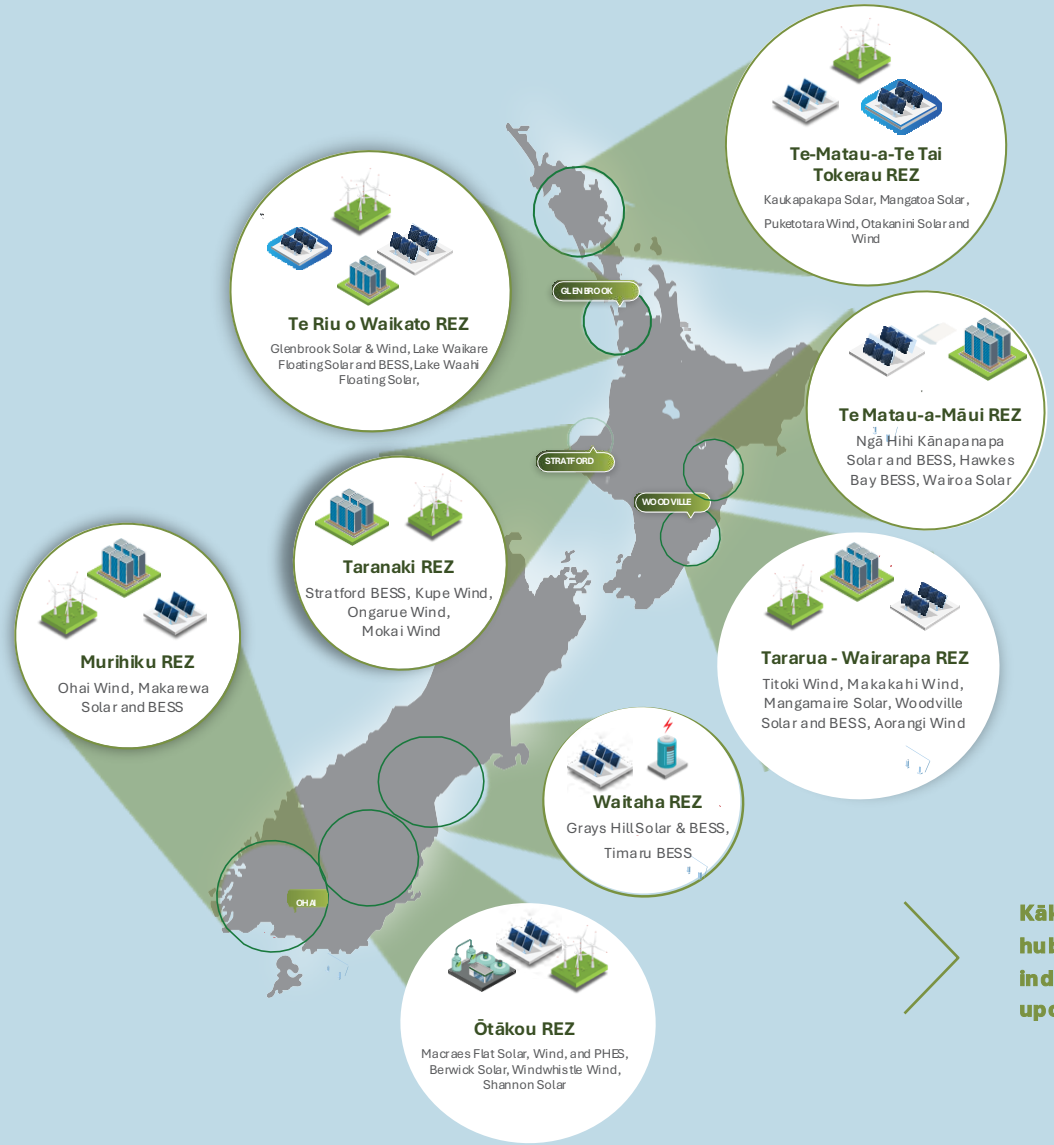
In pursuit of 600% renewables for Aotearoa

Kākāriki's vision and strategic plan

Kākāriki's vision is to accelerate the transformation of the New Zealand energy sector and the decarbonisation and growth of industry

Our strategic plan

- **Partnerships and Engagement**: To be at the forefront of the NZ energy sector with deep industry engagement and building and maintaining extensive local and global partnerships which help drive the accelerated transition of the energy sector
- **Renewable Energy Zones:** To support the development of renewable energy zones in New Zealand which harness regional energy resources, leverage existing infrastructure including transmission and generation and deliver enduring regional economic benefits
- **Precincts and ecosystems**: To create collective opportunities to supply power, heat and industrial feedstock to energy and infrastructure precincts across New Zealand
- **Customers**: To focus on the long-term energy needs of customers and industry sectors, with a focus on regional energy and infrastructure precincts and supporting ecosystems
- **Development Principles:** To develop outcomes for all project stakeholders which are fully aligned with our development principles
- **Māori partnerships and alignment**: All our projects are developed with a strong focus on partnering with Māori iwi groups, recognizing their values and needs
- **Team**: A team which draws on local and global experience to develop and deliver projects and outcomes which are fully aligned with our development principles



REZ : Renewable Energy Zone

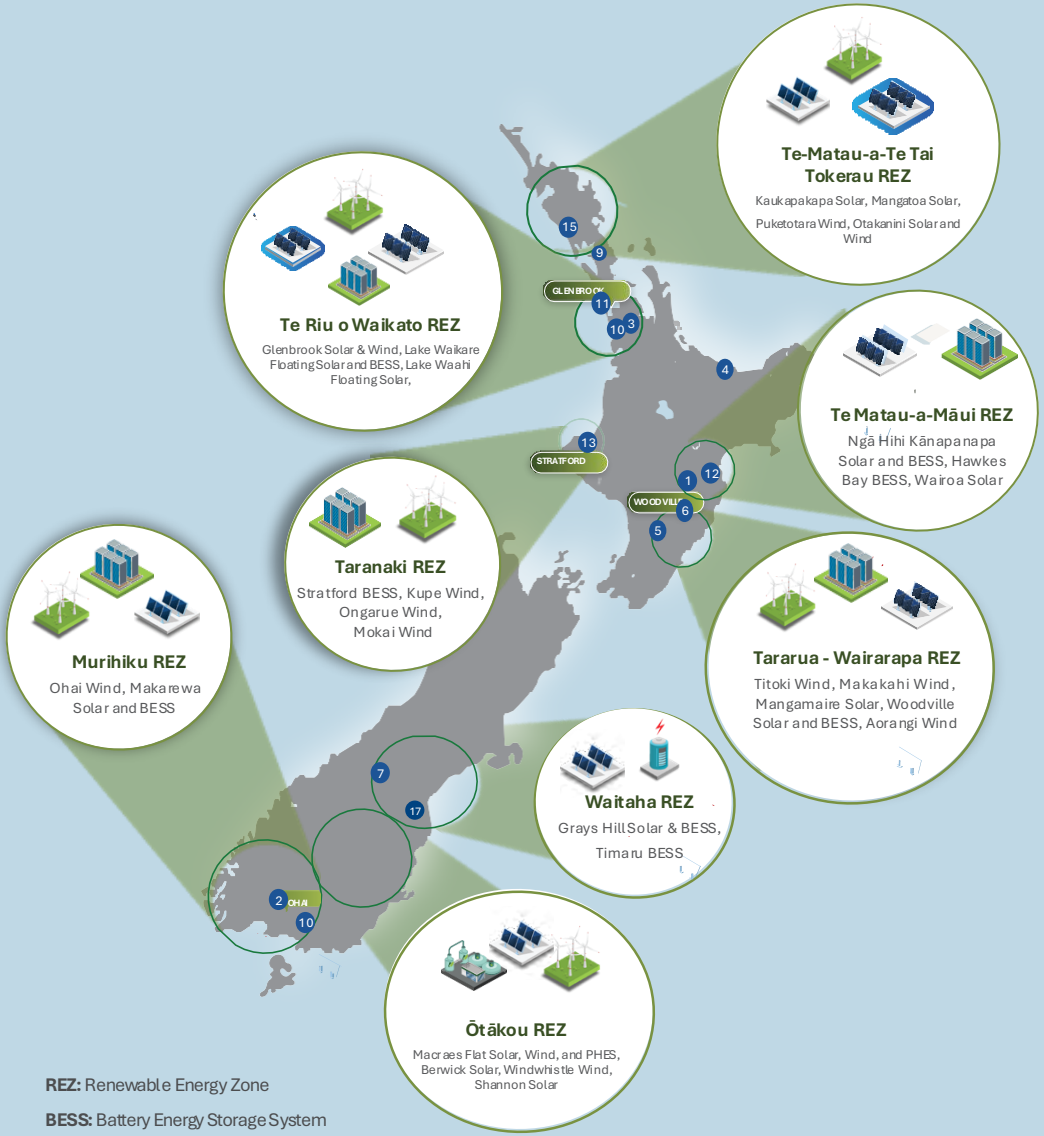
BESS: Battery Energy Storage System

PHES : Pumped Hydro Energy Storage

Kākāriki's current portfolio of hubs is focused on decarbonizing industry and meeting the upcoming demand growth

Kākāriki portfolio overview

Kākāriki is developing a large portfolio of strategically positioned solar, wind, and storage projects in key regions across New Zealand where new generation and capacity is needed



REZ: Renewable Energy Zone

BESS: Battery Energy Storage System

PHES: Pumped Hydro Energy Storage

Phase 1 Projects

Phase 1 is a set of renewable energy and storage projects that are in advanced stages of development, including land access, planning, grid connection activities, and Māori partnerships. These projects are strategically positioned for near-term execution and serve as the foundation for broader portfolio delivery.

1. **Ngā Hihi Kānapanapa** — Solar 96 MW; BESS 77 MW
2. **Ohai** — Wind 346 MW
3. **Lake Waikare** — Floating Solar 170 MW; BESS 300 MW
4. **Awakeri** — Solar 77 MW; BESS 50 MW
5. **Makakahi** — Wind 201.6 MW
6. **Titoki** — Wind 440 MW; *Expansion up to 600 MW
7. **Grays Hills** — Solar 600 MW; BESS 300 MW; *Expansion up to 1200 MW

Phase 2 Projects

Phase 2 projects are designed to complement the Phase 1 developments, enabling sustained growth and long-term scalability across the broader portfolio. The development activities for Phase 2 are currently focused on securing land and grid pathways, feasibility assessments, and deepening community and Māori engagement.

8. **Reporoa** — Solar 25 MW; BESS 25 MW
9. **Kaukapakapa** — Solar 73 MW; BESS 50 MW
10. **Lake Waahi** — Floating Solar 100 MW
11. **Glenbrook** — Solar 40 MW
12. **Hawkes Bay** — BESS 300 MW
13. **Stratford** — BESS 250 MW
14. **Kupe** — Wind 36 MW; *Potential to expand
15. **Otakaniri** — Solar 31 MW; Wind 108 MW; BESS 30 MW
16. **Glenrock** — Solar 600 MW; BESS 300 MW
17. **Timaru** — BESS 200 MW
18. **Macraes Stage 1** — Solar 30 MW; BESS 30 MW

Portfolio Summary

* Includes expansion capacity for relevant projects

Technology	Phase 1*	Phase 2	Pipeline	Total
Solar	1,373	268	1,892	3,533
Wind	1,723	386	3,013	5,122
Floating Solar	170	100	0	270
RE Projects	**3,266**	**754**	**4,905**	**8,925**
BESS	727	1,055	1,035	2,817
PHES	0	0	500	500
Storage Projects	727	1,055	1,535	**3,317**
Total	3,993	1,809	6,440	**12,242**

Kākāriki

Renewable Energy Zone (REZ) - a proposed area identified as highly suitable for large-scale renewable energy and storage projects. These zones aim to align resource potential with transmission planning and regional demand to support the transition to decarbonisation and electrification. REZs are being explored to streamline investment, reduce infrastructure barriers, and enable regional economic growth.

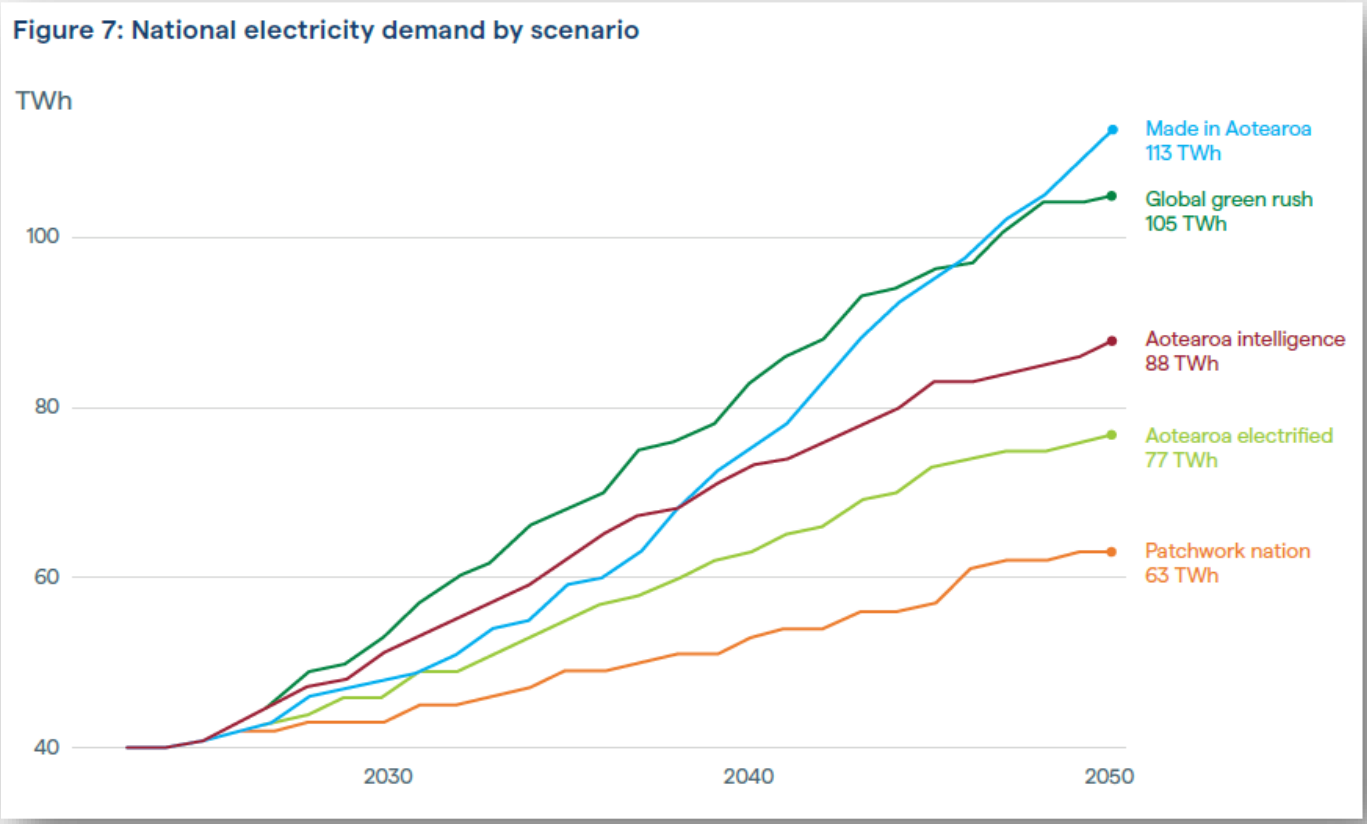
New Zealand electricity demand forecast to grow strongly up to 2050

We believe that the NZ electricity market will grow strongly over the period up to 2050. Our views are based on a combination of factors including:

- Robust existing transmission system
- World class renewable energy resources which complement hydro and geothermal
- Falling costs of solar and battery
- System capable of integrating GWs of new capacity without impacting system reliability
- Industry needs greater energy security and more affordable power
- Strong electricity demand driven by an existing shortfall, declining gas resources, electrification of transport, and new industries such as AI workloads, processing and manufacturing

We believe that the high case scenarios in Te Kanapu and other forecasts such as BCG's "Energy to Grow - Securing NZ's Future" are the most accurate and likely scenarios and help to underpin our vision and strategy.

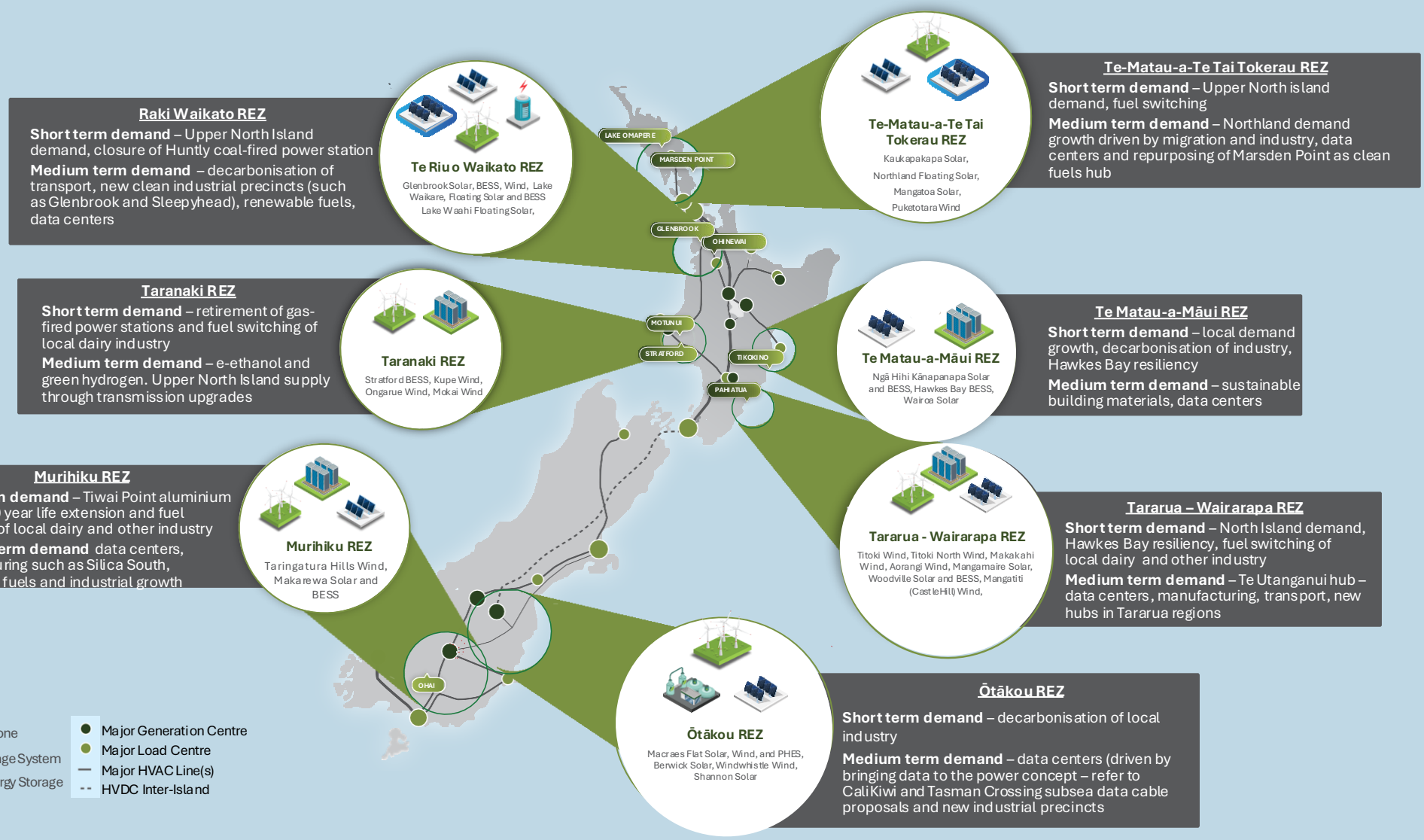
Figure 7: National electricity demand by scenario



Source: Transpower, Te Kanapu, Potential Scenarios, October 2025

Kākāriki's selected regions and demand drivers

Kākāriki's approach is to focus on the demand in each of the regions where we are developing projects and develop new generation and storage assets that can help to meet existing and future demand.



Raki Waikato REZ

Short term demand – Upper North Island demand, closure of Huntly coal-fired power station

Medium term demand – decarbonisation of transport, new clean industrial precincts (such as Glenbrook and Sleepyhead), renewable fuels, data centers

Te-Matau-a-Te Tai Tokerau REZ

Short term demand – Upper North island demand, fuel switching

Medium term demand – Northland demand growth driven by migration and industry, data centers and repurposing of Marsden Point as clean fuels hub

Taranaki REZ

Short term demand – retirement of gas-fired power stations and fuel switching of local dairy industry

Medium term demand – e-ethanol and green hydrogen. Upper North Island supply through transmission upgrades

Te Matau-a-Māui REZ

Short term demand – local demand growth, decarbonisation of industry, Hawkes Bay resiliency

Medium term demand – sustainable building materials, data centers

Murihiku REZ

Short term demand – Tiwai Point aluminium smelter 20 year life extension and fuel switching of local dairy and other industry

Medium term demand data centers, manufacturing such as Silica South, renewbale fuels and industrial growth

Tararua – Wairarapa REZ

Short term demand – North Island demand, Hawkes Bay resiliency, fuel switching of local dairy and other industry

Medium term demand – Te Utanganui hub – data centers, manufacturing, transport, new hubs in Tararua regions

Ōtākou REZ

Short term demand – decarbonisation of local industry

Medium term demand – data centers (driven by bringing data to the power concept – refer to CaliKiwi and Tasman Crossing subsea data cable proposals and new industrial precincts

REZ: Renewable Energy Zone

BESS: Battery Energy Storage System

PHES: Pumped Hydro Energy Storage

RE: Renewable Energy

- Major Generation Centre
- Major Load Centre
- Major HVAC Line(s)
- HVDC Inter-Island

Partnership, not Procurement

Kākāriki partners with a diverse range of industry participants and key stakeholders across multiple sectors to drive forward our development and delivery process. This collaborative approach ensures that growth is informed, inclusive, and aligned with evolving industry and community needs

MOU - PTS

MoU with PTS for renewable and storage connections

- PTS and Kākāriki Renewables have signed a Memorandum of Understanding (MoU) under which PTS will design, develop, build, own, and operate the network connection assets required to deliver Kākāriki's portfolio of renewable generation and storage projects across New Zealand.

- This MoU reflects the complementary roles we each play in New Zealand's energy transition. Our focus at PTS is enabling renewable and storage projects to connect reliably and efficiently, while creating lasting value for the communities and industries those projects serve," said Eric Pellicer, GM Strategy, PTS Energy.

Development principles & outcomes

Kākāriki's development principles are well-aligned with global impact frameworks (Equator Principles, United Nations Sustainable Development Goals) and these principles enable us to deliver benefits for Māori, the environment, society, the economy and culture

Development Principles

1. Partner with, and create legacy benefits for, Māori
2. Focus on enduring, community-centred outcomes
3. Commit to biodiversity, environmental and marine environment restoration and regeneration
4. Prioritise and preserve the use of agricultural land
5. Collaborate with wider energy market participants and support common infrastructure solutions to reduce impact
6. Create and deliver skills, training and education
7. Prioritise local procurement and employment
8. Deliver secure and dignified work
9. Develop projects with legacies
10. Commit to diverse representation
11. Provide industry stewardship and leadership
12. Drive circular economy principles
13. Deliver projects using transparent and accountable processes and reporting systems
14. Accelerate New Zealand reaching its Net Zero targets

Development Outcomes

- Economic, social and cultural advancement for Māori
- Realising benefits which the community itself considers important
- Beneficial impacts through biodiversity restoration and recovery, and integration with agricultural practices
- Skills development, research and trades training of local workforce
- Local job creation, particularly to the underrepresented socio-economic and cultural sectors
- Significant long-term regional economic benefits from supporting and enabling clean energy supply chains
- Create secure, dignified and well-paid jobs that support communities and regional economies
- Creating long-lasting positive outcomes for stakeholders and the broader community
- Diversity of representation of cultural and socio-economic groups across the project workforce
- Strong project social licence and co-benefits for the project, third-party organisations and the community
- Creating enduring physical, social and economic impacts
- Leader in material recovery and re-use during construction and the re-powering phase
- Deliver projects using transparent, accountable processes supported by credible, comparable evidence
- Deliver net zero carbon outcomes in development, construction and operations


Electrifying the Vision
Manawatu - Tararua

Electrifying the Vision

Electrifying the Vision is one of the core initiatives for Kakariki and Energy Estate

The Manawatu- Taraua region currently has many significant gas users which will need to transition to alternative sources of energy or cease/reduce operations

The Electrifying the Vision initiative was launched in November 2024 in Palmerston North at a one day workshop jointly hosted by Central Economic Development Agency (CEDA), Kakariki, Energy Estate and Amber Infrastructure. The attendees at this workshop included Transpower, Powerco, Amber Infrastructure, local council representatives from across the region including Tararua District Council, Manawatu District Council and Palmerston North City Council. The purpose of this workshop was to outline and examine the opportunities for the region from electrification of industry and investment in new generation, storage and transmission with the goal of leveraging the strategic position of the Manawatu-Tararua region and the national significance of the Bunnythorpe GXP. Electrifying the Vision for the Manawatu-Tararua region has been designed to be fully aligned with the regional priorities and in particular the development of the Te Utanganui Central North Distribution Hub. https://www.teutanganui.co.nz/

In March 2025 an Electrifying the Vision hui was held at the Waahi pa next to the Huntly Power Station in the Waikato. This hui focussed on the opportunities to develop a regional energy and infrastructure ecosystem centered around the Huntly GXP and the Ohinewai switching station. Attendees included Tainui Group Holdings, Te Riu o Waikato, Waikato Regional Council, BNZ , Invest NZ and Amber Infrastructure. In September 2025 we held a roundtable Electrifying the Vision workshop in Wellington with representatives from Manawatu-Tararua, South Canterbury and the Waikato and Andrew Renton from Transpower attended the roundtable. We have held further roundtables and workshops in Timaru and Palmerston North (with Transpower representatives present) and multiple meetings with local stakeholders including presentations to councils, EDBs and local MPs.

In February 2026 Energy Estate and Kakariki held a workshop in Palmerston North focussed specifically on the opportunities to develop large scale data centers in the Bunnythorpe region and what investments in regional electricity infrastructure and generation and storage assets would be required to facilitate this investment in New Zealand. The attendees at the workshop included Transpower, Powerco, councils and relevant landowners.

Since the Electrifying the Vision initiative was started in Palmerston North it has grown to include other regions including Waikato, South Canterbury, Taranaki, Southland with the most recent additions being the Eastern Bay of Plenty and Whanganui-Ruapehu District. The goal is to include all the different regions in New Zealand as we believe that they can all play a role in New Zealand's electrified future and have the opportunity to leverage the natural resources and existing and future investments in electricity infrastructure.

In this section of the submission, we have highlighted some of the key features of the Electrifying the Vision initiative for the Manawatu-Tararua region and the activities undertaken to date.

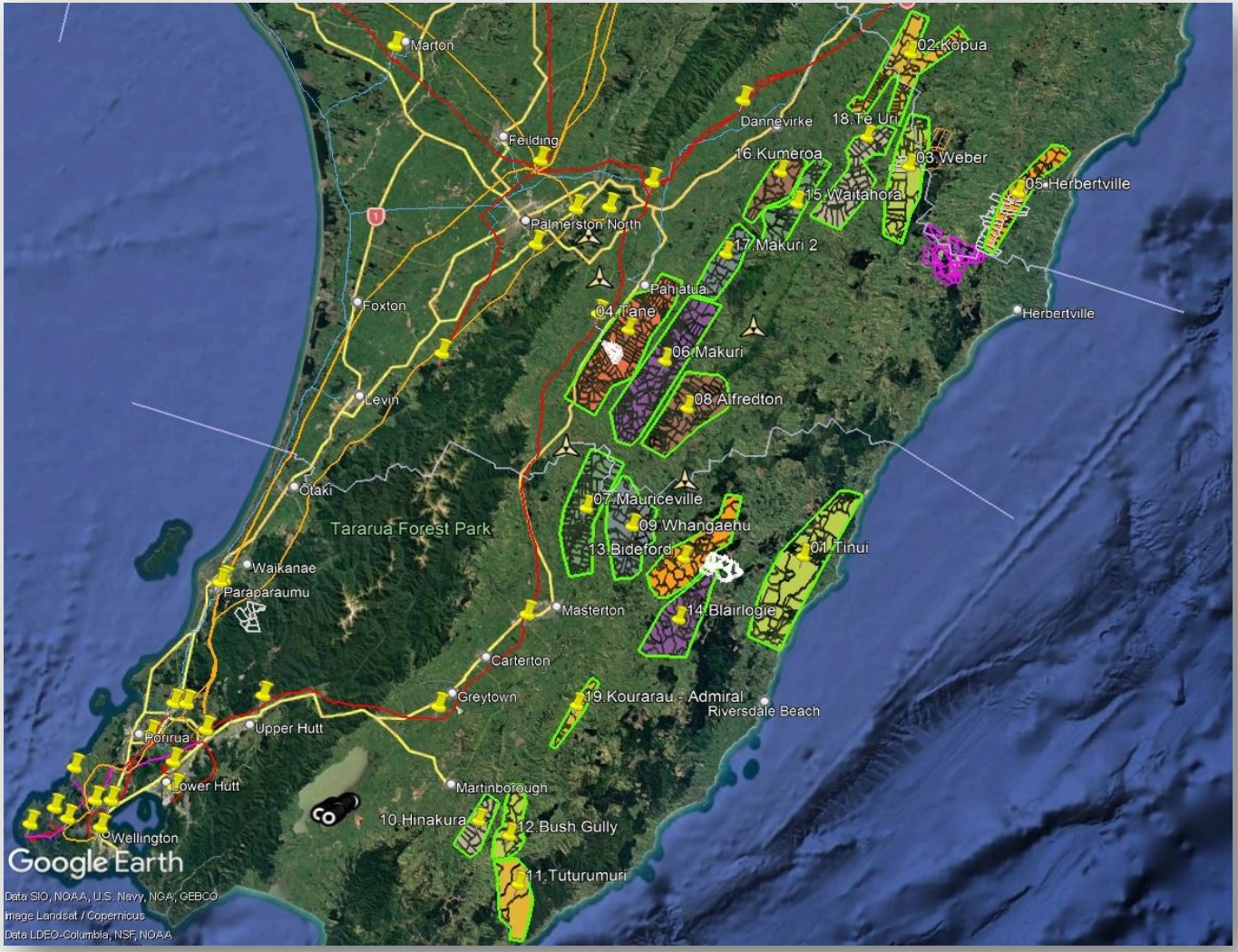
Manawatu-Whanganui – energy resource rich region

Wind Pioneers was commissioned by Kakariki to prepare analysis of the viable wind resources in the Manawatu-Tararua-Wairarapa region. Wind Pioneers are a globally leading wind technical consultancy. https://wind-pioneers.com/

The assessment is summarised in the map to the right which identifies new sites for large scale wind development in the broader region stretching from the southern Hawke's Bay to the Wairarapa.

The total wind generation opportunities which have been assessed as viable are in excess of 12GW - which is in addition to the existing developments in the region such as Puketoi WF and Castle Hill WF.

We would be happy to share the more detailed analysis with the Transpower team as they progress the investigation for the Tararua MCP.



New Zealand's Gas Decline: Highlights need for rapid transition

New Zealand is facing a dramatic and irreversible decline m in the domestic gas resources which have met industrial and household demand . The urgent need to transition energy users to electricity or other alternative sources of energy has been recognised and the energy industry.

In September'25, Brett Rogers - Director Development published his insights on the challenges and opportunities arising from the decline in the available gas resources in New Zealand. The graph to the right was produced by Brett and tracked New Zealand's gas production over the past two and a half years and forecast what might happen next. The graph shows forecast declines in production based on a straight line just as well as a more typical exponential curve. While gas reservoirs typically decline exponentially due to pressure depletion, New Zealand's water drive reservoirs behave differently - their performance hinges on unpredictable water breakthrough. This graph helps explain why NZ has repeatedly been caught off guard by reserves write downs.

Since this insight was published there has been further confirmation from the gas industry that reserves are declining - with OMV formally notifying that the Maui field will close at the end of 2026.

This has accelerated the need for the transition from gas to alternative energy sources - even with the possibility of LNG imports in the future. This transition is directly relevant to the Tararua MCP and the need for investment in transmission upgrades.

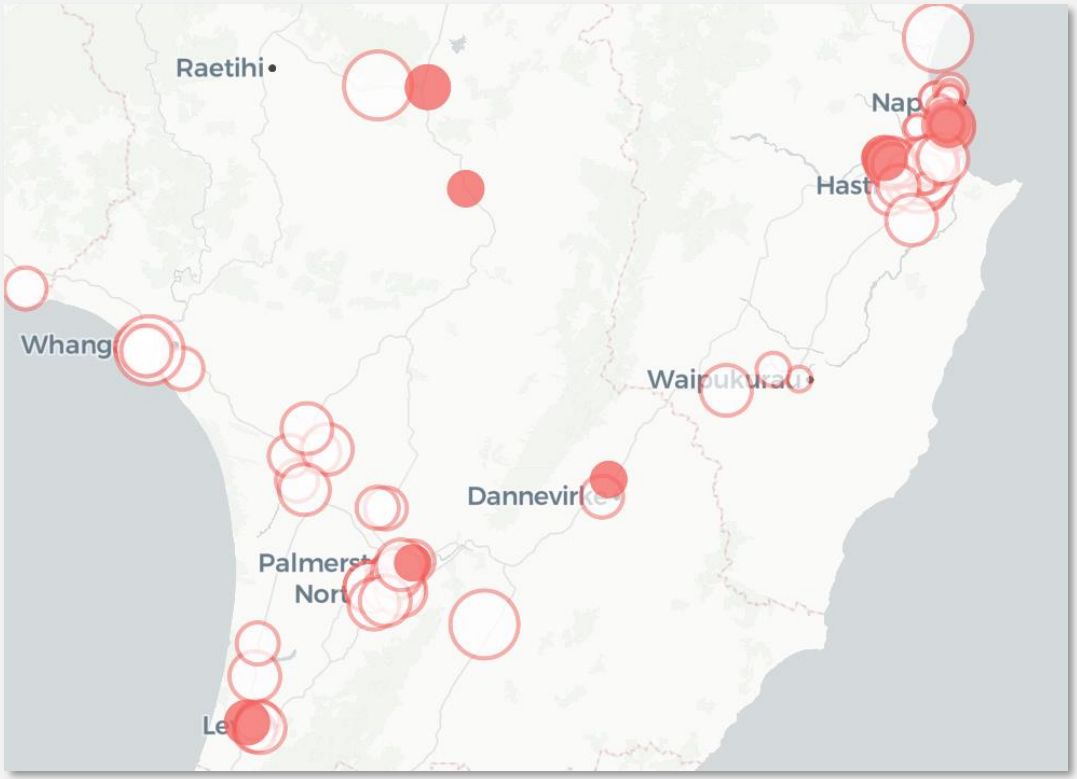
https://kakarikirenewables.com/nzs-gas-decline-a-rapid-transition-opportunity

Tararua MCP - Regional gas demand

The **Tararua region is connected to the NZ gas transmission network and gas is supplied to industrial users and communities from Pahiatua through to the Hawke's Bay .**

The region currently has many significant gas users which will need to transition to alternative sources of energy or cease/reduce operations

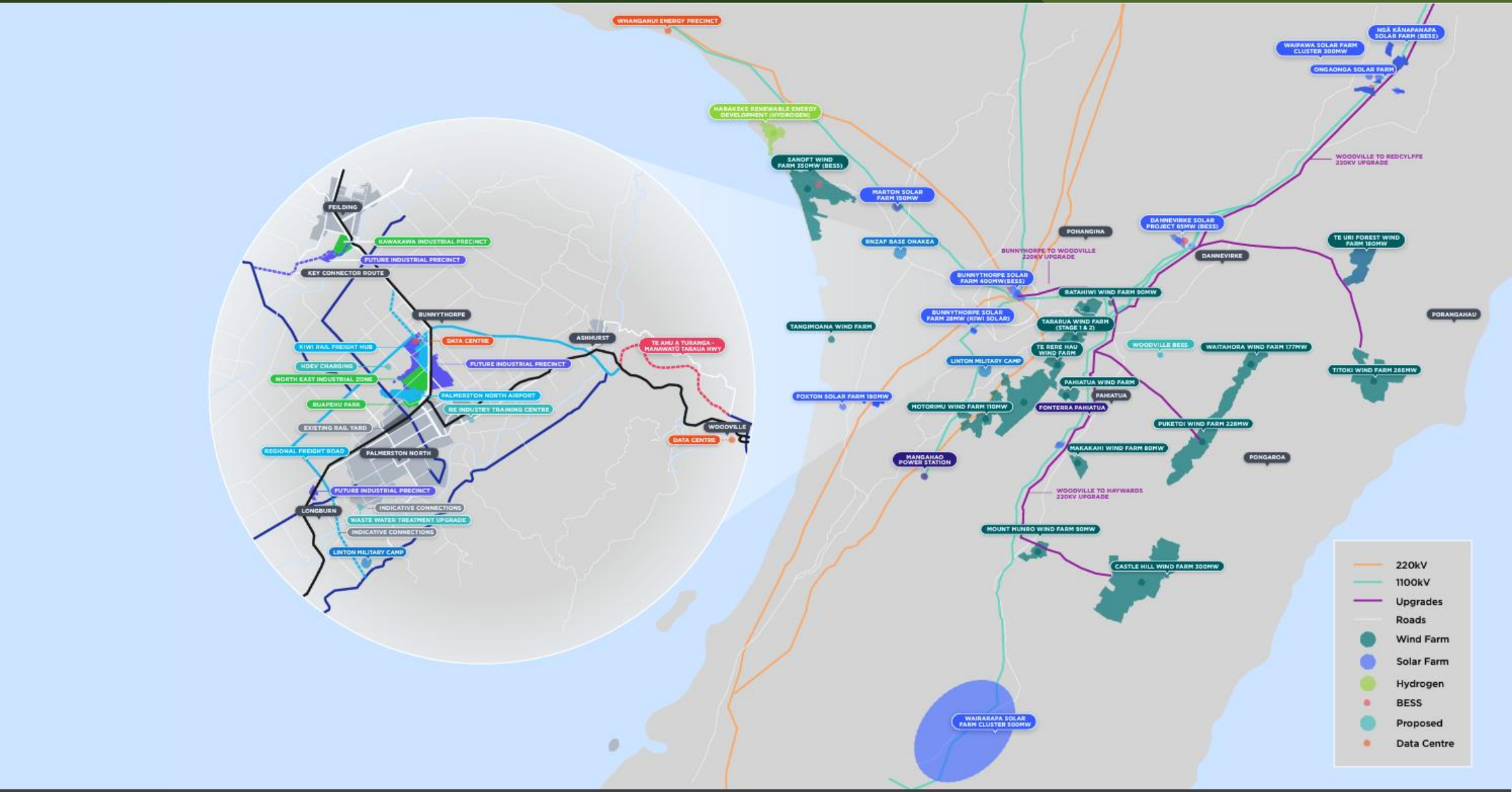
The Tararua and Hawke's Bay region are connected to the gas transmission network. Currently there is no piped gas available in the Wairarapa region. The extent of the high-pressure pipeline is shown in the maps below from the Firstgas website. The level of gas demand in the region is distributed along the pipeline network with clusters in Pahiatua, Dannevirke, Waipukarau and Napier/Hastings - as shown in the map taken from EECA's RETA dashboard. A core focus for us is working with the local economic development agencies across the region to explore the opportunities to electrify the existing energy intensive industries and support economic resiliency and growth.



https://www.eeca.govt.nz/insights/data-tools/regional-energy-transition-accelerator-dashboard/

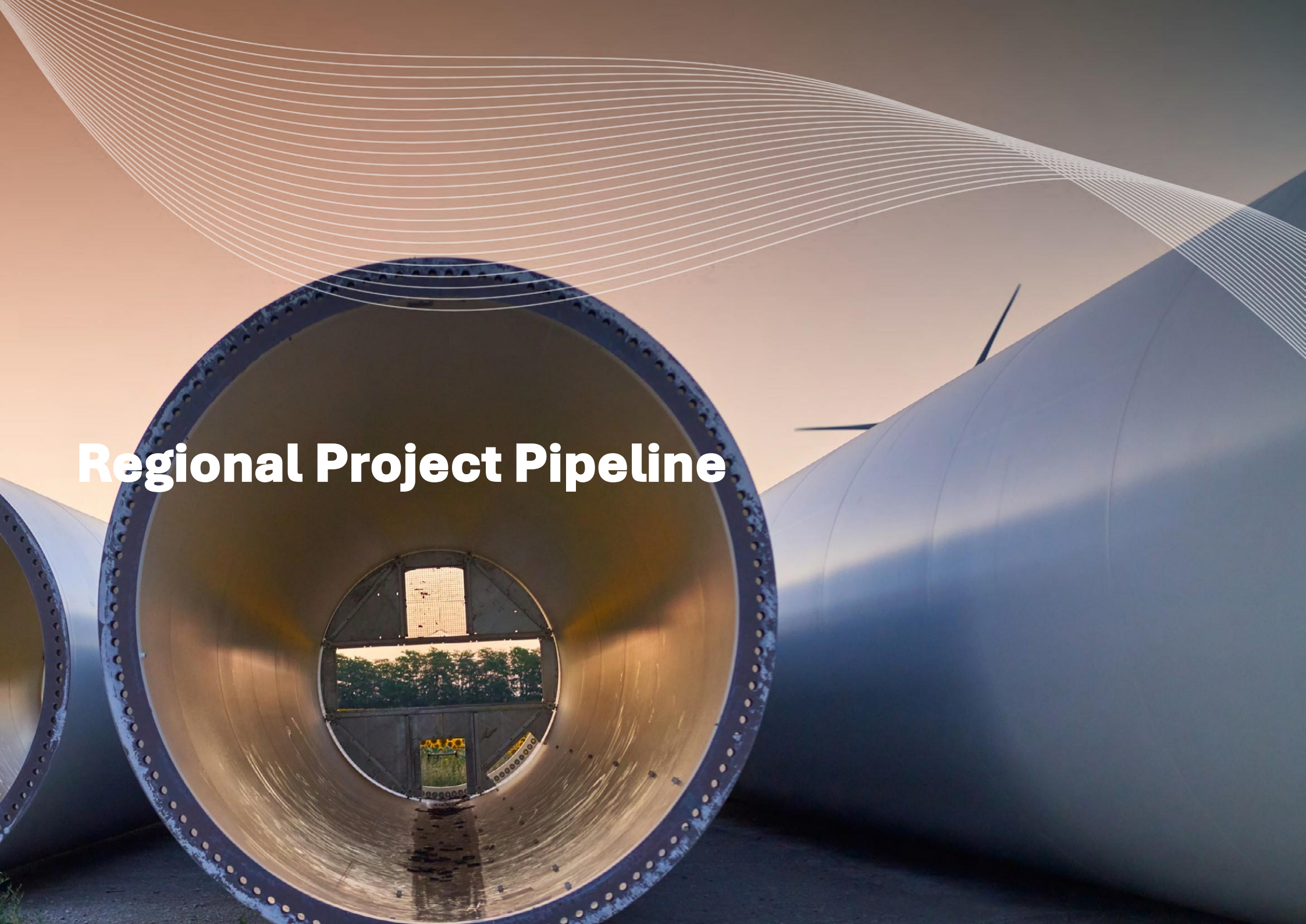
Tararua-Manawatu-Whanganui Energy and Infrastructure Partnership

Builds on the Electrifying the Vision in November 2024. This update was presented at the workshop in Palmerston North in February 2024 and includes potential connections to the new wind farms and investment in hubs and new load at Bunnythorpe and Woodville



Regional engagement milestones

Key Kākāriki milestones to date	Date
JV formation	Jun 2020
First PPA engagement with MEUG (Major Energy Users Group) (multiple engagements since)	Sep 2020
First landowners' agreement	Mar 2022
Transpower REZ engagement and board presentations	2022
Site visits - Northland, Waikato, Hawke's Bay, Wairarapa, Otago, Taranaki, Southland	2022/2023
Sunny Side Up – first solar industry workshop in NZ	Jul 2022
First consent lodged	Jul 2023
Solar development risk structure	Aug 2023
Māori name Ngā Hihi Kānapanapa gifted for Tikokino solar farm	Oct 2023
First Cultural Impact Assessment for Ngā Hihi Kānapanapa	Oct 2023
First Māori MOU	Jan 2024
Submitted Future Fuels Alliance bid for Air NZ SAF	Apr 2024
Pacific Channel Fund V launched to support Kākāriki	Aug 2025
Powerco Transmission Services connection partner	Sep 2025



Regional Project Pipeline

Waipawa Solar Cluster

We have focussed on the development of large scale solar and battery projects in the Waipawa region since 2020. This region is one of the best located in the country for the development of large scale resources due to a combination of factors including strong solar resources, suitable and available land, landowner and community sentiment and existing electricity infrastructure with the potential for upgrades.

The maps from Renew Map show the level of current development in the Waipawa region (over 500MW of consented/in consenting) and the quality of the solar resource.

Our pipeline of projects include:

- **Ngā Hihi Kānapanapa Solar Farm** (100MWdc) & BESS (77MW/2hr). We are currently investigating the opportunities to materially expand this site
- **Kahahakuri Solar Farm** (130MWdc) and potential extension and BESS (to be acquired from original developers).
- **Tikokino** – we are exploring an opportunity for a large scale solar farm next to SH50 which would connect to an upgraded regional hub (~200MW)

Ngā Hihi Kānapanapa Solar Farm & BESS

The Ngā Hihi Kānapanapa Solar Farm & BESS a utility-scale photovoltaic project located near Waipawa, Central Hawkes Bay.

The project comprises approximately 121 ha across two properties of primarily LUC 7 (non-arable land) and is currently an advanced stage development in consenting.

~100.2 MWdc
Total generation capacity

170.4 GWh
Net Year 1 Generation (P50)

~ 23,000
Equivalent Residential Supply (NZ Homes)

Kahahakuri Solar Farm

The Waipawa Solar Farm is a consented utility-scale photovoltaic project located in Waipawa, Central Hawke's Bay.

The project comprises approximately 154.51 ha of former intensive dairy farmland and holds an existing resource consent from the Central Hawke's Bay District Council, issued in 2022.

~130 MWdc

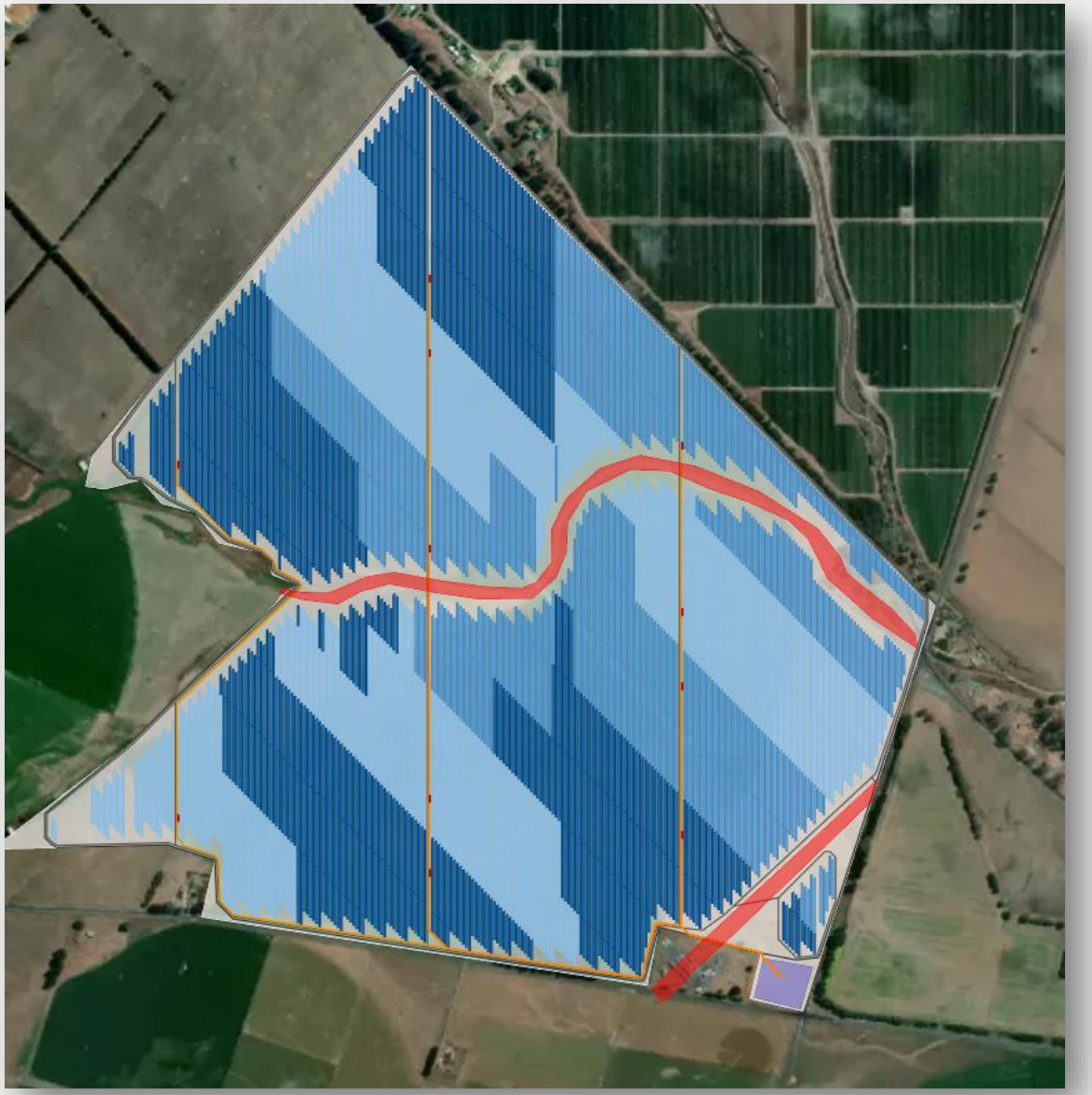
Total generation capacity

203.4 GWh

Net Year 1 Generation (P50)

~ 28,000

Equivalent Residential Supply (NZ Homes)



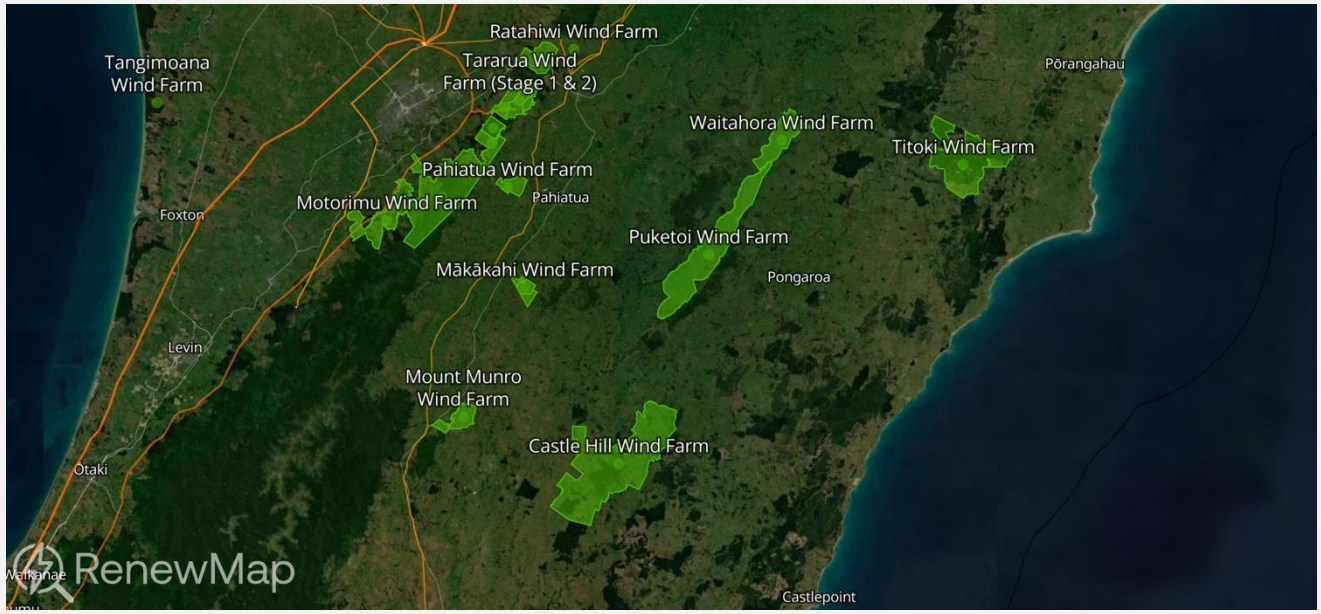
Tararua Wind Cluster

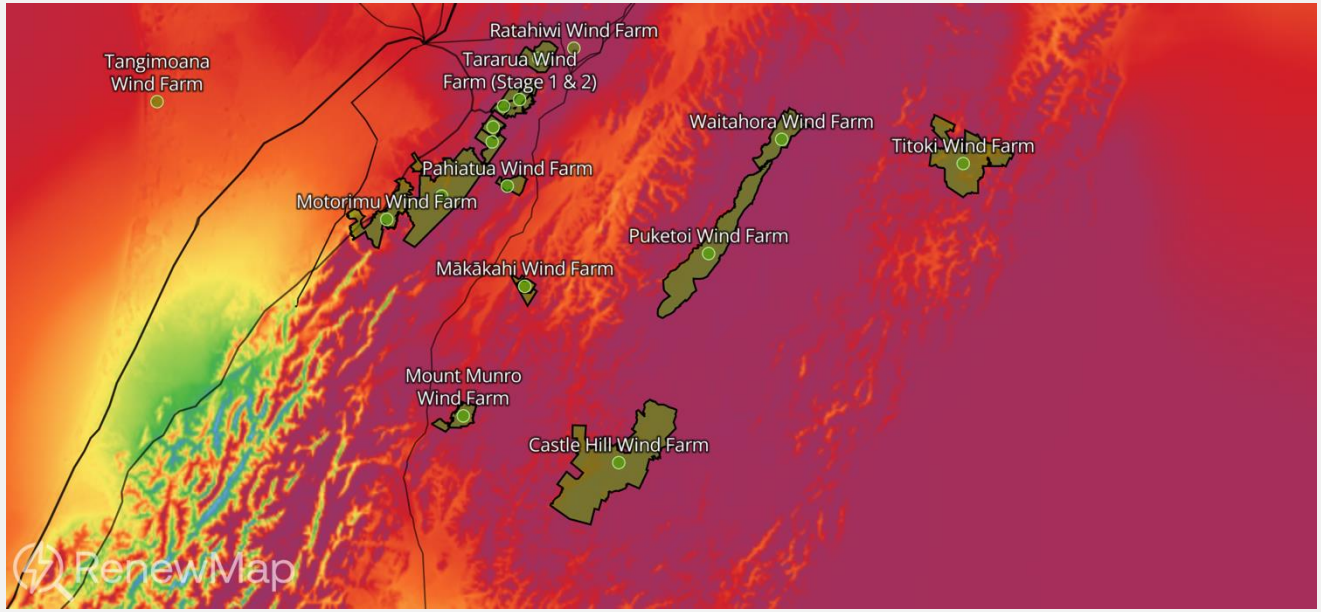
The wind resource in the Tararua represents one of the best wind untapped wind resources globally.
The assessment undertaken by Wind Pioneers (and the maps to the right from Renew Map) underscore the scale and quality of the wind resource. They also show how the high quality wind resources extends up to the Central Hawke's bay region and down through the Wairarapa region.

We have focussed on development of a portfolio of large-scale wind projects which complement existing and historic developments and the potential to upgrade the electricity infrastructure.

Our pipeline of projects include:
- Titoki Wind Farm - 439.2MW with potential to expand up to 600W
- Makakahi Wind Farm - ~201.6MW with potential to expand up to 684MW

We have also been investigating the Aorangi Wind Farm in the Southern Wairarapa region which is ~100MW wind farm to south of Martinborough (towards the Hau Nui Wind Farm)



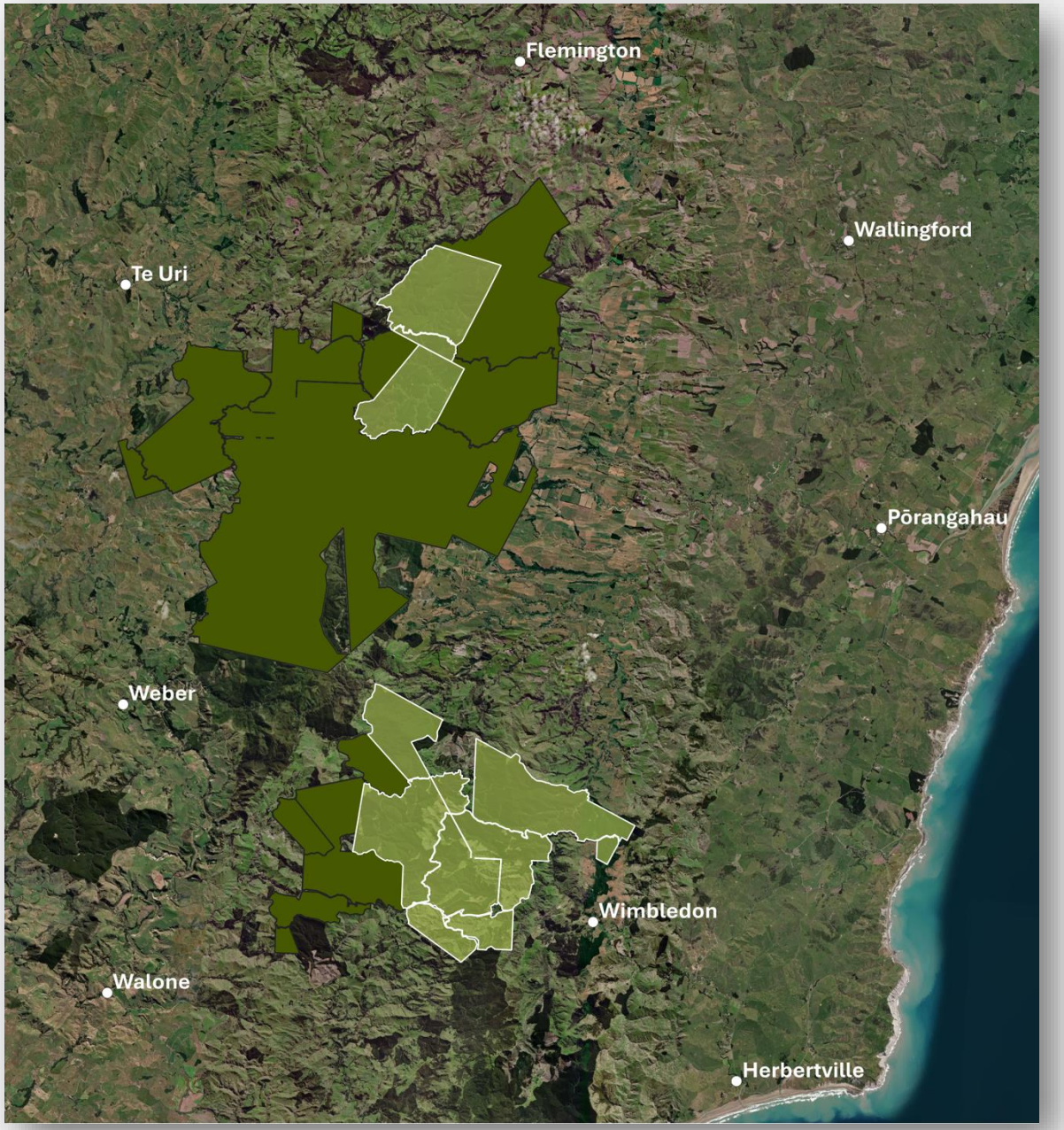


Tītoki Wind Farm

The Tītoki Wind Farm is a project in development spanning the Hawke's Bay / Manawatū-Whanganui region.

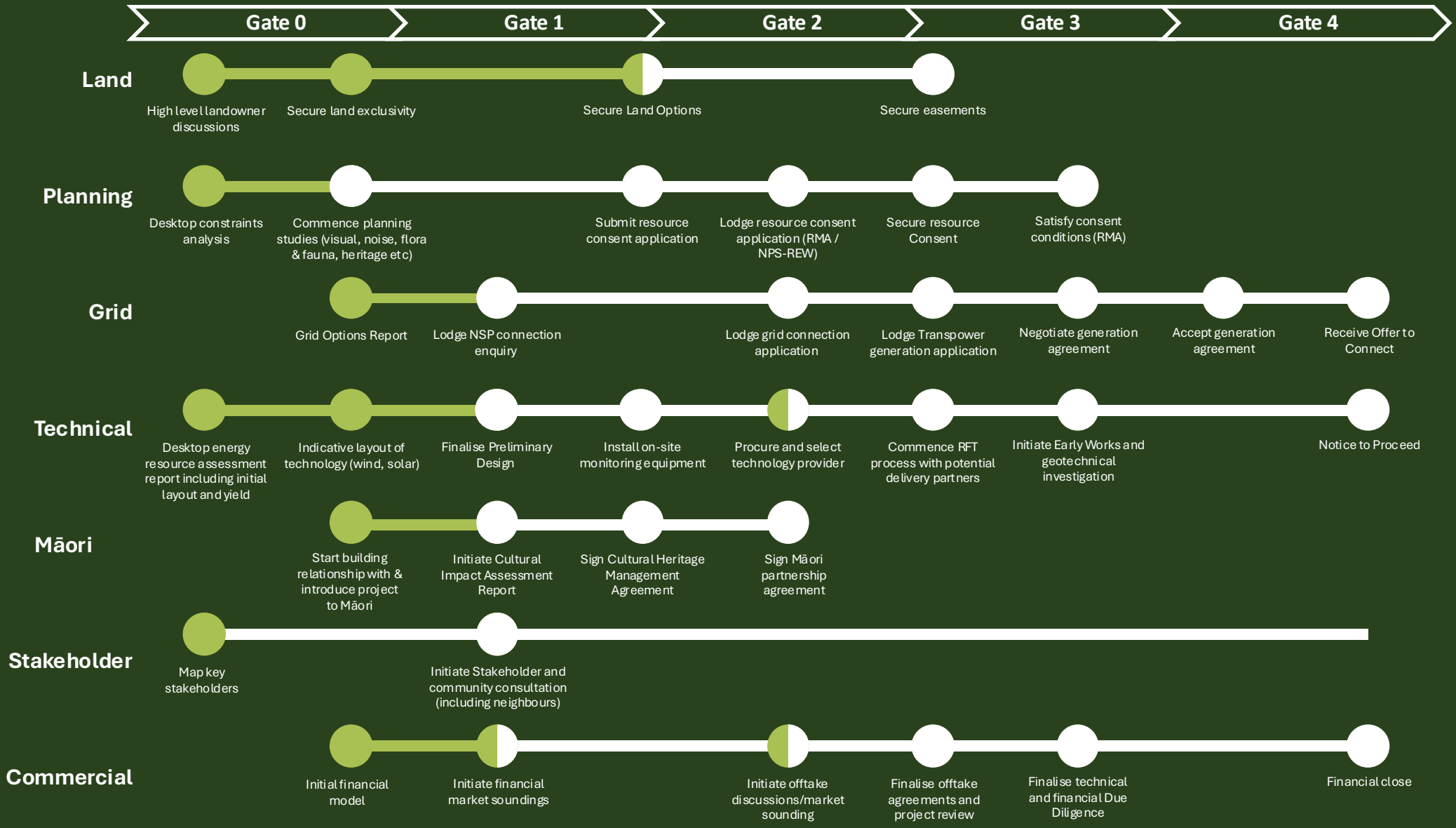
The project comprises the Tītoki forest - 48,858 ha and the Te Uri forest - 2,465ha both under Freehold by Ernslaw One and represents one of the core Wind in the Forests projects in the Kākāriki portfolio.

Core Wind Farm	Target Expansion
50.06%	**48.6%**
Net P50 Capacity Factor	Net P50 Capacity Factor
~439.2 MW	**~600 MW**
Total generation capacity	Total generation capacity
1,947 GWh	**2,555 GWh**
Net Year 1 Generation (P50)	Net Year 1 Generation (P50)
~ 274,000	**~ 360,000**
Equivalent Residential Supply (NZ Homes)	Equivalent Residential Supply (NZ Homes)



Tītoki Wind Farm

The project team has successfully progressed a number of key development milestones, demonstrating strong project momentum and a clear pathway to delivery.

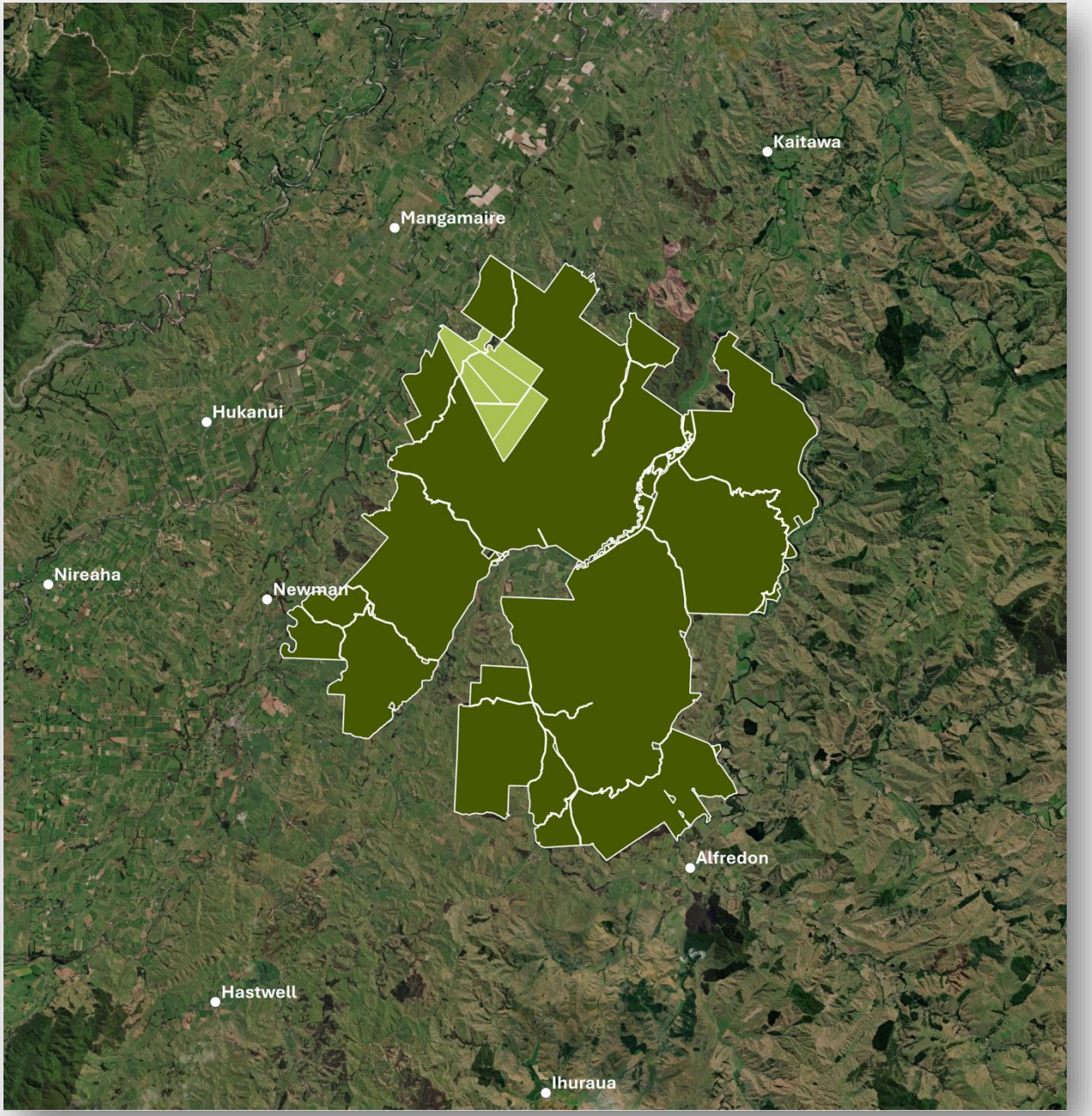


Mākākahi Wind Farm

The Mākākahi Wind Farm is a project in development to the south east of Pahiatua.

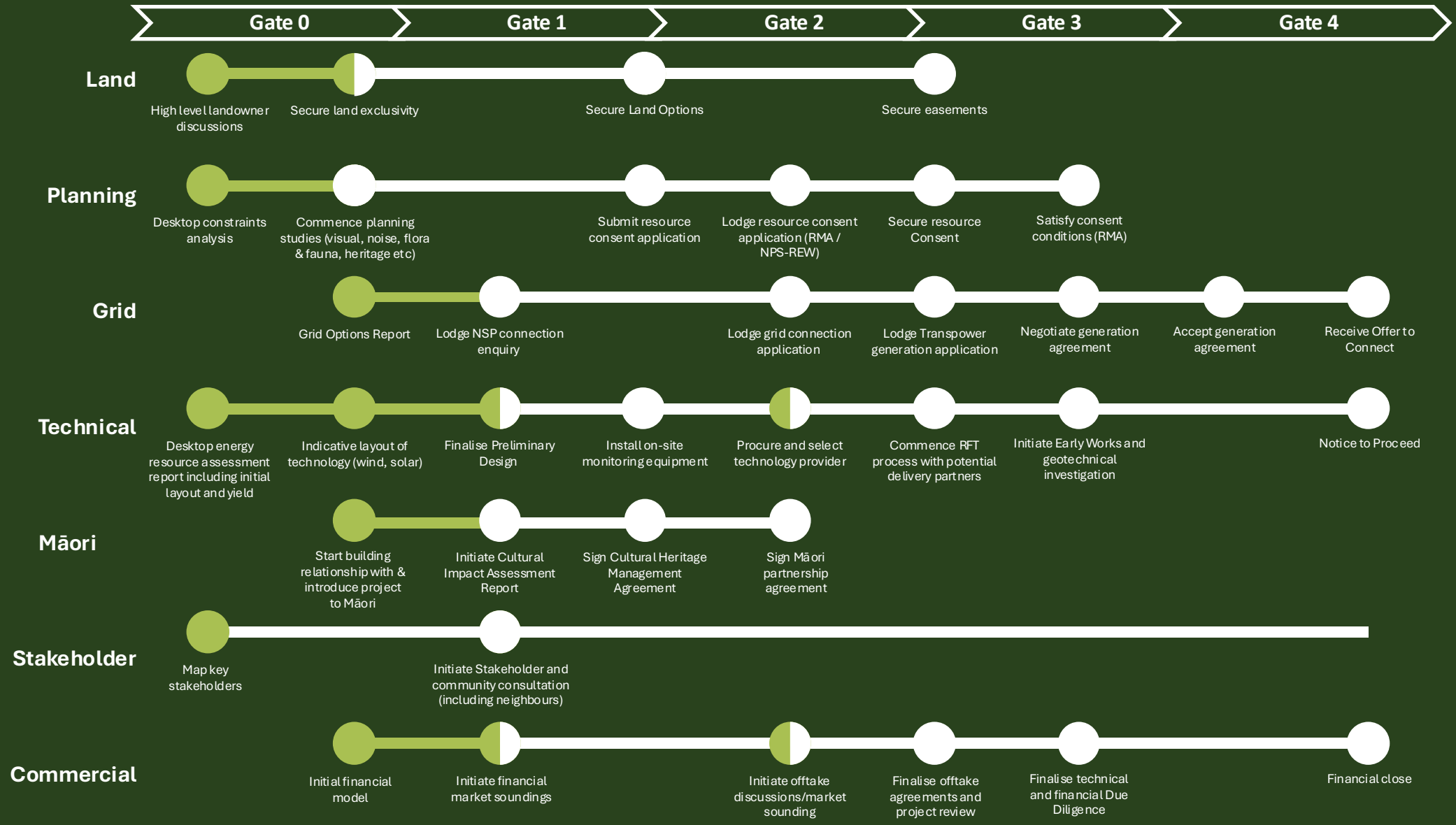
The project footprint includes a large carbon forestry block owned by the founder of Iconiq and is currently being expanded with the additional of adjoining blocks.

Core Wind Farm	Target Expansion
41.6%	**42.1%**
Net P50 Capacity Factor	Net P50 Capacity Factor
~201.6 MW	**~684 MW**
Total generation capacity	Total generation capacity
435 GWh	**2,523 GWh**
Net Year 1 Generation (P50)	Net Year 1 Generation (P50)
~ 103,000	**~ 315,000**
Equivalent Residential Supply (NZ Homes)	Equivalent Residential Supply (NZ Homes)



Mākākahi Wind Farm

The project team has successfully progressed a number of key development milestones, demonstrating strong project momentum and a clear pathway to delivery.



Waimarino Wind Farm

- Pipeline

The Waimarino Wind Farm is a proposed 396 MW wind farm project located between Ohakune and Waimarino.

The project is located in an elevated region with good wind resource, approximately 8.5 m/s mean wind speed at a hub height of 150 m on predominant LUC 7 land.

Core Wind Farm

39.04%

Net P50 Capacity Factor

~396 MW

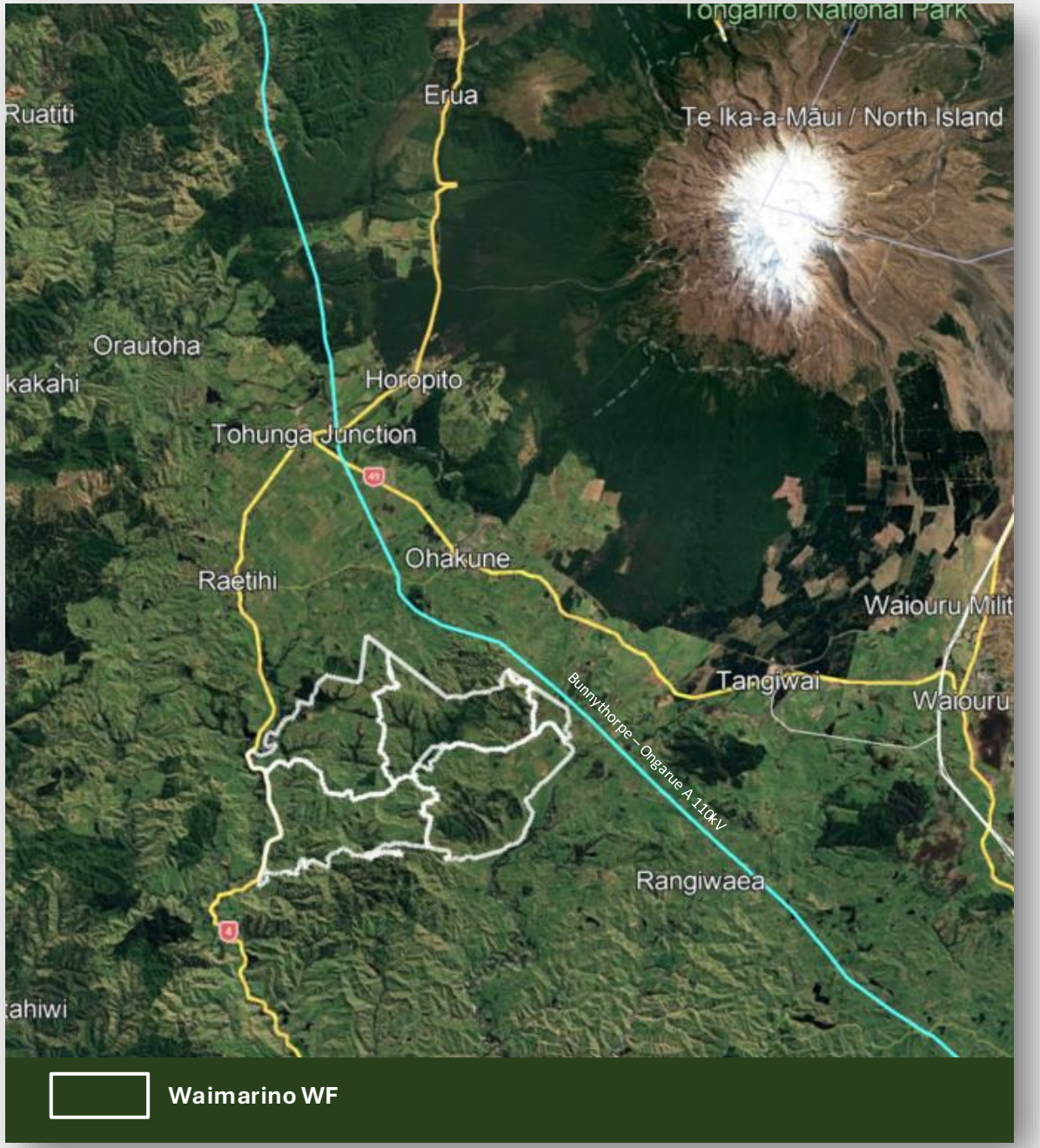
Total generation capacity

1,354 GWh

Net Year 1 Generation (P50)

~ 191,000

Equivalent Residential Supply (NZ Homes)



Hawkes Bay BESS

The Hawkes Bay BESS is a proposed Battery Energy Storage Systems project in Whakatu, Hawkes Bay.

The project comprises approximately 12 ha on a single property. Selected for its proximity to grid infrastructure, the site is flat and low lying, therefore easy for construction stage.

BESS Project

300 MW

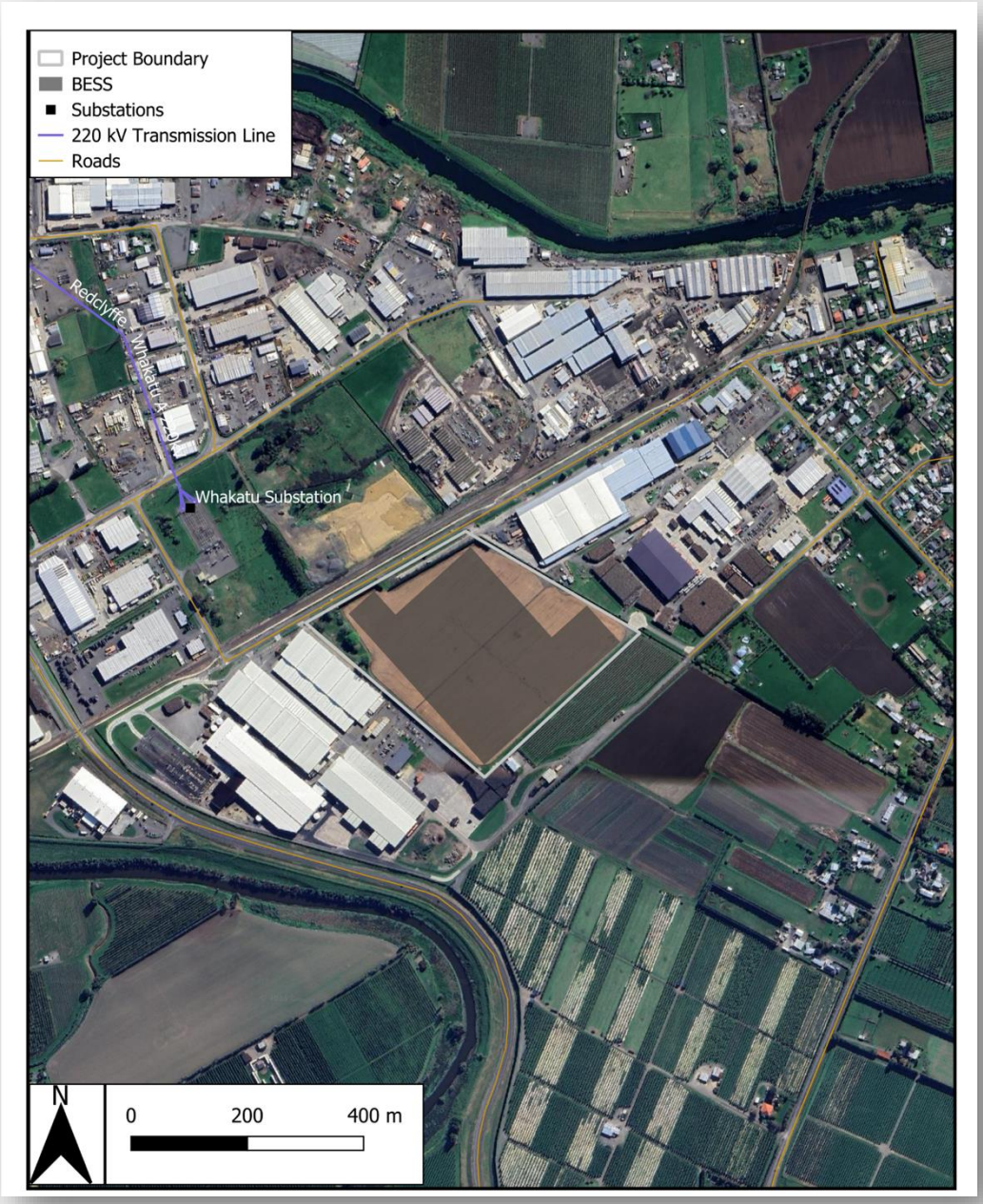
Power Rating

1,200 MWh

Total Storage Capacity

~ 54,000

Equivalent Residential Power Delivery (NZ Homes)



Response to consultation questions

Investment Assessment

Q1: Do you agree with our assessment of the investment needed?

Yes - strongly, but the need is understated in both scale and timing. We agree the existing 110 kV network (Bunnythorpe - Woodville 57/70 MVA; Dannevirke - Woodville 50/62 MVA; ~100 MW limits over the Waipawa spur and at Mangamaire; ~200 MW Mangamaire-Masterton-Greytown) cannot accommodate the pipeline.

Three points strengthen the need case:

- **The resource is national-best.** Transpower's own analysis shows 47% average wind capacity factor in the Wairarapa versus a 44% maximum elsewhere, ~3 GW of regional wind potential, and nearly 2 GW of solar (plus BESS) in the pipeline. This is the most capital-efficient renewable energy basin in New Zealand. This assessment is confirmed by the Wind Pioneers work which was commissioned by Kakariki.

- **Kākāriki's committed intent.** Our regional portfolio (Q10) includes multiple wind and solar projects totalling over 1GW in the first phase with expansion and additional projects taking the total to in excess of 2GW. This level of development when coupled with the existing and future developments by the wider renewable energy industry underscore the scale of the opportunity in the region.

- **The first-mover problem is real and current.** The widely reported '$250m stalemate' on Wairarapa wind shows that without coordinated, anticipatory investment, no individual project can rationally underwrite the shared assets. Anticipatory investment is cheaper than piecemeal connection - we agree and ask Transpower to quantify this saving explicitly in the short-list consultation.

- **Regional resiliency.** We believe it is critical to highlight the importance of accelerated investment in electricity infrastructure upgrades to ensure regional resiliency. The impact of the rapid decline in gas supplies is likely to be material especially after recent closures in the food processing sector.

Investment Assessment

Q2: Are there any other issues or considerations relating to the investment need that we should incorporate into the investigation?

Yes. The need case should incorporate the demand-side transformation underway in the region, not only generation export:

- **RETA Manawatū-Whanganui (EECA, May 2025).** 42 process-heat sites consuming 2,611 TJ/yr of fossil fuel (316 MW thermal). The Electricity Centric pathway adds up to 171 MVA of peak demand by 2050 (+51%), with Bunnythorpe and Marton GXPs flagged for upgrade. Fonterra Pahiatua alone is up to 38 MVA if electrified. Even the biomass-led 'MAC Optimal' pathway achieves a 93% emissions cut by 2037 - the fuel switching is coming either way, and grid capacity determines whether electricity competes.

- **Gas Transition Loan Guarantee Scheme (Budget 2026).** Crown 80% guarantee unlocking up to $1.2 billion of bank lending for gas users ≥1,000 GJ/yr; EECA estimates full uptake could displace up to 10 PJ/yr of gas. This materially accelerates the RETA electrification case and should be reflected in demand scenarios.

- **Transport electrification and Te Utanganui.** The Central New Zealand Distribution Hub (CEDA-led with PNCC, Manawatū DC, Rangitāne o Manawatū and Ngāti Kauwhata) anchors >$8 billion of transport/infrastructure investment, including KiwiRail's ~177 ha Regional Freight Hub near Bunnythorpe. Heavy freight crossing the region (road/rail/air) will electrify or move to hydrogen (Hiringa is already on site) - both are electricity demand.

- **Data centre demand.** BCG (Feb 2026) sizes NZ domestic data centre growth at ~300 MW by 2035, with export scenarios adding 300 -1,300 MW (3.5–8 TWh/yr). Globally, data centres move to energy-rich regions (Texas >40 GW projected by 2028; NSW pipeline 11.4 GW). An energy-rich Tararua with a freight/logistics hub and fibre is a credible host - see Q8.

- **Security and resilience.** Gas supply fell 21% in 2024 alone; winter 2024 prices peaked near $800/MWh and contributed to closures and curtailments across regional industry (Winstone Pulp, 230 jobs; Kinleith paper; Pan Pac pause; McCain and Wattie's in Hawke's Bay). The investigation should treat accelerated regional renewables as insurance against repeating 2024.

- **Te Kanapu alignment.** The investigation should test the long list against Transpower's own Te Kanapu 2050 scenarios (March 2026), not just EDGS 2024, to avoid an internally inconsistent view of the future grid.

Other options

Q3: Are there any other options we should add to our long list?

Yes. We ask Transpower to add or make explicit the following options:

- **A staged 220 kV backbone (our preferred development path).** Stage the long-list components so early, low-cost works release capacity now while the 220 kV spine is consented - see Section C for the full staging proposal (Bunnythorpe 110 kV reconductoring and Waipawa reconfiguration first; new 220 kV Bunnythorpe - Woodville; then Woodville - Mangamaire and Woodville–Dannevirke with generation spurs; then Dannevirke – Waipawa - Fernhill/Redclyffe; finally, Mangamaire–Masterton/Haywards).

- **Closing the eastern 220 kV ring.** Evaluate the Tararua - Hawke's Bay link (Waipawa - Fernhill/Redclyffe) not only as generation export but as a resilience investment that closes a second North Island ring - the value of which was demonstrated by Cyclone Gabrielle's impact on Redclyffe.

- **Hub-based connection (REZ-style GXP/GIP 'energy hubs').** Multi-user hubs at Woodville, Mangamaire, Dannevirke and Waipawa with standardised connection bays, co-located BESS and shared system-strength assets - directly analogous to EnergyCo NSW's energy-hub design in the New England REZ.

- **Storage as a transmission alternative and complement.** Grid-scale BESS at constraint points (Woodville, Waipawa, Masterton) to defer or right-size wires, firm the wind-solar profile and reduce SPS run-backs. The NTS category currently considers demand-side and storage contracts for peak support only - it should also test storage for export-constraint management.

- **Low-cost capacity-release measures on the existing network.** Dynamic line ratings, power-flow control devices, and protection/SPS modernisation as a bridge - recognising the copper-conductor circuits cannot be thermally uprated and need reconductoring or replacement.

- **Future-proofing.** Build new 220 kV assets duplex/double-circuit-ready and acquire easements once for the end-state configuration, even if energised in stages.

- **Energy and Infrastructure Hubs.** Assessment of the design of new large loads such as data centers or renewables fuels so that they support the build-out of the network and other energy users. The recent initiatives by Microsoft and Google in the US such as the Clean Energy Accelerator Charge and the Community-First AI Infrastructure initiative are useful benchmarks to consider.

Transmission Upgrade

Q4: If new or upgraded shared transmission capacity were developed, which connection areas or locations would be most beneficial to you and why (e.g., proximity to your projects, lower curtailment risk, fewer consenting barriers)?

In priority order for Kākāriki:

- **Woodville (new 220/110 kV GXP/GIP).** The natural hub for our Tararua cluster - Mākākahi Wind Farm (201.6 MW, between Pahīatua and Eketāhuna, ~1 km east of SH2), the Woodville BESS (300 MW/ 1200 MWh) and future repowering/expansion. A Woodville hub minimises spur lengths, uses existing corridors, and serves both Manawatū and Hawke's Bay flows.
- **Dannevirke (northern spur).** Connection for Tītoki Wind Farm (439.2 MW, spanning Hawke's Bay/Manawatū-Whanganui) and the Te Uri area.
- **Waipawa (reconfigured to export toward Fernhill/Redclyffe).** Unlocks the Waipawa solar cluster (1 GW+ potential, Q11) and Ngā Hihi Kānapanapa (100 MW solar + 90 MW BESS, south-west of Hastings). Reconfiguring Waipawa to send power north to Hawke's Bay load is the single highest-value early action for our solar portfolio.
- **Mangamaire (southern spur).** Serves the Mākākahi area and provides a path for the consented Castle Hill project area (Genesis) - generation diversity at this node benefits all users.
- **Why these locations:** proximity to our projects (shorter spurs, fewer landowners), materially lower curtailment risk than the constrained 110 kV spurs, use of existing corridors (fewer consenting barriers), and staging optionality - each hub is independently valuable.

Screening Criteria

Q5: Are there any other criteria we should consider when evaluating our long list of options and reducing it to a short list?

Yes. The six screening criteria are necessary but not sufficient. We propose adding:.

- **Economic benefits and load enablement.** The current criteria are silent on regional/national economic benefits and on enabling new load (electrification, data centres). An option that creates a connection-ready energy hub for new demand should outrank one that merely exports energy.
- **Time to first capacity.** Score options on how quickly the first tranche of constrained generation is released, not just end-state capability - this drives the staging logic in Section C.
- **Scalability and optionality.** Preference for options that can be expanded (duplex-ready lines, hub sites with spare bays) as the pipeline matures, given forecast uncertainty.
- **Resilience contribution.** Ring-closing and N -1 improvements for Hawke's Bay and Wairarapa load.
- **Social licence and community benefit.** Demonstrated route acceptability and a credible community benefit-sharing framework (see NSW access-fee model) should be an explicit criterion - it is the dominant schedule risk in comparable Australian projects.

Constraints & Limitations

Q6: Are there any constraints or limitations we might not be aware of regarding our options?

Yes. Constraints we see from our development programme and Australian delivery experience:

- **Supply chain.** Global lead times for large power transformers, 220 kV switchgear, conductors and STATCOMs remain extended; REZ programmes in Australia are absorbing regional manufacturing and EPC capacity. Early procurement (and standardisation across stages) is essential - another argument for committing to a staged programme now.

- **Outage windows.** Reconductoring live, security-constrained 110 kV circuits that also supply regional load requires long outage planning horizons; the SPS-managed network leaves little redundancy. This favours building new 220 kV capacity before deep brownfield rebuilds.

- **Consenting and land access.** New corridors face the same community concerns seen in New England (Walcha) and the Central-West Orana (NSW): corridor concentration, visual amenity, and landholder fatigue. Early, well-resourced engagement and benefit-sharing are prerequisites, not afterthoughts. Fast-track consenting helps but does not substitute for community trust.

- **System strength and IBR integration.** High inverter-based resource penetration on a long 110/220 kV corridor will need system-strength remediation (synchronous condensers/STATCOMs, grid-forming BESS) and the protection upgrades are already identified in the long list - these should be sized for the end-state, not the first stage.

- **Workforce.** Concurrent NZGP1, distribution and generation builds will compete for the same line crews and engineers.

- **Partnerships with Communities/Councils.** We would recommend that Transpower engages with The Energy Charter and their #Better Together initiative and explore how this experience can be translated to NZ. Energy Estate is one of the only developers which is a member of The Energy Charter and the CEO Sabiene Heindl is happy to engage with you. https://theenergycharter.com.au/

Related Developments

Q7: Are you aware of any new industrial, commercial, residential or other developments that will significantly impact demand that are not mentioned above? If so, what are they?

Yes. We are aware of the following developments that should be considered.

- **Process heat electrification (RETA).** Confirmed and probable conversions across the region: Fonterra Pahiatua (largest single site - 576 TJ/yr, up to 38 MVA electrified), Alliance Dannevirke (confirmed project), plus the Mangamaire dairy factory electrification step-load Transpower has already identified (22 -34 MW, ~2031). The Gas Transition Loan Guarantee Scheme will pull more of these forward from 2026-27.

- **Te Utanganui / freight electrification.** KiwiRail Regional Freight Hub (~177 ha, near Bunnythorpe), Foodstuffs and Primary Connect DCs, Hiringa hydrogen refuelling - an emerging electrified freight precinct at the Bunnythorpe end of the corridor.

- **Data centres.** Te Utanganui partners have publicly promoted a green-energy 'hyperdata centre' vision for the Manawatū. Boston Consulting Group's (BCG) report "Data centres as strategic infrastructure: unlocking value for NZ Inc" (March 2026) sizes the national opportunity at 600 -1,300 MW of new build by 2035. New Zealand Trade and Enterprise (NZTE) actively promotes New Zealand's data centre industry as a strategic $70 billion economic opportunity with a new report due out on 1 July. Energy-rich regions will win this load - the Tararua MCP is the enabling condition.

- **Hawke's Bay industrial electrification.** HB is seeing growing IE demand, particularly in food processing, as gas degrades (with Heinz Wattie's cited a 300% gas price rise over seven years when restructuring Hastings' operations), alongside active workstreams emerging from the Hawke's Bay energy summit workstreams.

- **Residential/horticulture growth** in Palmerston North and Hawke's Bay corridors.

- **EV uptake** on the regional truck routes (SH2/SH3 freight triangle).

Demand Assumptions

Q8: Do you consider our demand assumptions appropriate for this investigation? Please provide us with any information about developments in the region that could help inform our forecasts.

They are a reasonable base but skewed low. Regional peak growth of 0.2–1.4% p.a. (winter peak reaching only ~158–220 MW by 2050) does not reflect the step-change drivers in Q2/Q7.

We recommend the following:

- **Add a high-electrification case** anchored to the RETA Electricity Centric pathway (+171 MVA regional peak by 2050) and the Gas Transition Loan Scheme uptake, aligned with the highest Te Kanapu 2050 scenario rather than EDGS Environmental alone.
- **Add an AI/data centre case.** AEMO now forecasts NEM data centre demand tripling from ~4 TWh (2025) to ~12 TWh by 2029-30 and ~34 TWh by 2050 and roughly doubled its forecast between cycles. A NZ analogue consistent with BCG's 600 -1,300 MW range should be tested, with at least one tranche located at Bunnythorpe/Te Utanganui. We would be happy to introduce you to Alex Hooper at Oxford Economics who ahs undertaken the assessments for AEMO for the last 2 years.
- **Make prudence symmetric.** Scaling the Environmental scenario by P90/P50 protects against over-build but not under-build. Given 60-72 month build durations, the cost of being late exceeds the cost of being early - the scenario weighting should reflect that asymmetry.

Assumptions

Q9: Do you agree with our proposal to use our BBC Assumptions Book v3.0 variations as the basis for our market scenarios for this investigation?

Yes, with refinements. We support using Assumptions Book v3.0 and specifically endorse the reclassification of Mt Munro, Pahiatua, Puketoi and Castle Hill to the Wairarapa wind zone at 47% capacity factor (from 38%) - consistent with measured regional performance.

Refinements:

- **Add a high-electrification case** anchored to the RETA Electricity Centric pathway (+171 MVA regional peak by 2050) and the Gas Transition Loan Scheme uptake and align with the highest Te Kanapu 2050 scenario rather than EDGS Environmental alone.
- **Update the modelled capacities and status of Kākāriki projects** per Q10, Table 5 of Attachment 2 of the consultation understates our portfolio - including Ngā Hihi Kānapanapa, Mākākahi, Tītoki, Woodville BESS and the Waipawa solar cluster.
- **Model storage explicitly** (standalone and co-located BESS), including its effect on export profiles, SPS run-backs and dry-year support - not just as an NTS peak product.
- **Ensure consistency** with the parallel Assumptions Book v3.0 consultation and commit to a true-up at short-list stage so projects advancing between now and then are captured.
- **Add the high-demand and AI cases from Q8** as scenario variations, so the Investment Test captures option value of scale.

Our projects in the region

Q10: Are you developing a generation project in the Tararua and Wairarapa area? At what stage are you in developing it (e.g. investigating, consenting, in design, financial investment decision approved, in construction)? If there was sufficient transmission capacity, when would you expect your project to be built?

Yes. Kākāriki Renewables is a developing a significant pipeline of projects in New Zealand, with a Phase 1 national portfolio of ~4 GW wind and solar plus ~1 GW storage (>12 GW total pipeline).

Our Tararua -Hawke's Bay regional projects are listed below.

Timing: with a committed staged transmission programme, we would expect to take FID on the first projects match Stage1 energisation, and to sequence the balance against the later stages. Transmission certainty is the binding constraint, not capital or resource.

Project	Technology	Capacity	Stage	Earliest build (with transmission)
Mākākahi Wind Farm (Pahīatua–Eketāhuna)	Wind	201.6 MW Under Expansion	Mid Stage Development (Accelerated)	2029-2030
Tītoki Wind Farm (Hawke's Bay / Manawatū-Whanganui)	Wind	439.2 MW Under Expansion	Mid Stage Development	2030-2031
Ngā Hihi Kānapanapa (SW of Hastings)	Solar + BESS	100 MW + 90 MW	Advanced Stage (Consent Expected 2027)	2028-2029
Waipawa solar cluster	Solar + BESS	100 MW + Potential for expansion	FID in Q4 2026 (Consented)	2028-2029
Woodville BESS	BESS	300MW / 1200 MWh	Development	2030
Hawke's Bay BESS	BESS	300 MW	Pipeline	2031
Central North Island Wind	Wind	396 MW	Pipeline	2032

Additional Generation Projects

Q11: Are you aware of any additional generation projects in or near the Tararua and Wairarapa region that could materially affect our modelling for this investigation?

Yes. We are aware of the following projects.

- **The Waipawa solar cluster (1 GW+ potential).** The Waipawa/Ongaonga/Central Hawke's Bay area can credibly host more than 1 GW of solar: high-quality solar resource (Hawke's Bay is among NZ's strongest solar regions); extensive lower-productivity land (soil classes that limit intensive agriculture) with flat, contiguous parcels close to the Waipawa substation; and demonstrated social acceptance - Centralines' 26 MW embedded Ongaonga solar and Helios' 100 MW project show local precedent. The reconfigured Waipawa–Fernhill export path (Stage 1b) is what unlocks the first stages with large scale additions to be unlocked with investment in storage and the 220kv infrastructure. .

- **Repowering.** Te Rere Hau repowering (170 MW) is committed; older Tararua wind assets will repower at materially higher capacity factors and MW - modelling should not hold legacy capacities flat to 2055.

- **Known third-party projects** (Castle Hill - Genesis, 300 MW modelled; Mt Munro - Meridian 90 MW; Otupae 400 MW; Mākākahi-adjacent and Tītoki-adjacent prospects) are captured in Transpower's Table 1, but their sizes should be trued-up at short-list stage; several are larger than modelled. We are also aware that there are other developers currently exploring wind and solar opportunities in the region.

- **Offshore/longer-term:** no material pre-2040 in this region, in our view, but the calculation period (Q14) should be long enough to capture second-generation builds.

Generation Assumptions

Q12: Do you consider our generation assumptions (including assumed capacities, costs and capacity factors) appropriate for this investigation?

Yes – with some adjustments.

- **Capacity factors:** We support 47% for Wairarapa-zone wind - consistent with operating data from the existing ~0.5 GW regional fleet. For Hawke's Bay/Tararua solar, ensure assumptions reflect the region's high irradiance with expected P50 capacity factors of 24.5%.
- **Capacities:** Kākāriki projects are larger than the anonymised Table 1 entries suggest, and the Waipawa cluster is absent - Transpower to update per content provided in Q10/Q11 .
- **Costs:** wind and solar capex assumptions should be benchmarked against 2025-26 actuals from the Australian REZ programmes and recent NZ builds rather than historic NZ averages; BESS costs have fallen faster than most assumption books contemplated.
- **Hybrid project economics:** The rapid fall in BESS costs is accelerating the move to hybrid wind as well as solar projects. This is very relevant for the Tararua region with a very strong wind resource which is highly correlated with the resource for the existing wind farms in the region and the resource in the Taranaki-Whanganui-Horowhenua region. While the high degree of correlation may supress market prices the quality of the resource creates the opportunity for power generated o be stored and then be exported to meet demand (and reduce prices) at times when the wind is not blowing. Our business cases are based on delivering power at the lowest possible costs to existing and new consumers and the broader economics outcomes for NZ rather than only seeking to develop projects which are judged on the forecast market capture price and being concerned about cannibalisation of other assets in a portfolio.
- **Hybridisation:** model with co-located wind + solar + BESS sharing connection capacity (DC-coupled or AC-oversized). This raises energy per MW of transmission and is central to how Kākāriki designs projects and regional ecosystems - treating each technology as standalone understates what the corridor can deliver.

Regional Transmission Development

Q13: What aspects of the regional transmission development plan would be most important for your generation projects (e.g., timing certainty, connection configuration)?

There are several aspect we consider important, as noted below.

- **Timing certainty above all:** FID, PPA and supply-chain commitments hang off a credible energisation date. A committed staged programme with dates beats a larger uncommitted one. CWO's experience is instructive: once access and timing were credible, 7.15 GW of access rights were taken up against 7.7 GW of capacity.
- **Scale:** 220 kV backbone, duplex-ready, sized for the ~3 GW resource - not incremental 110 kV patches that are exhausted by the first two projects.
- **Connection configuration:** multi-user hubs at Woodville, Dannevirke, Mangamaire and Waipawa with standard bays, room for BESS, and clear cost-allocation/queue rules, so developers can size projects to hub capacity.
- **Curtailment transparency:** published expected-curtailment profiles per stage (the CWO access scheme caps average curtailment at ~4.37% - that level of clarity transformed bankability).
- **Interim arrangements:** clarity on SPS/constraint management and any pre-Stage-1 connection headroom so early projects are not penalised for moving first.

Calculation Period

Q14: Do you consider the proposed calculation period to 2055 appropriate for this investigation? Or do you think we should use a calculation period longer than 2055 to assess the economics of the investment options? If yes, what end year (or number of years) would you suggest, and why?

No - extend it. 2055 is a misleading and inappropriate cut-off date for the assessment.

We recommend a calculation period to at least 2065 (i.e. ~40 years from commissioning), with sensitivity testing to 2075, because:

- Transmission assets have economic lives of 50-80+ years; truncating at 2055 ignores the majority of the benefit stream of assets commissioned ~2030-2035, biasing against the larger, more scalable options that serve the region best.
- The strongest demand drivers (full process-heat electrification, data centres, transport) compound after 2040; Transpower's own Te Kanapu blueprint plans to 2050 and beyond, and the 2055 cut-off is inconsistent with that horizon.
- The Capex IM 20-year default is already being departed from for good reason; having accepted that logic, the end-year should follow asset economics, not a round number.
- Terminal/residual value treatment should be explicit if any truncation is retained, so options are not artificially penalised.
- Investors in the energy sector are increasingly investing in development projects on the basis of at least one re-powering (i.e. extending the site life to approx. 2 generation assets lives, which are each typically 25-35 years each). Accordingly, for the key transmission infrastructure, a 30-year calculation period appears very short compared with international benchmarks. To put this in context we are now basing investment decisions for the generation assets we are developing on a 35-year financial model.

Discount Rate

Q15: For this investigation, we propose using a 3% discount rate to better reflect the long-term benefits of enabling renewable generation and supporting more affordable electricity prices. Do you consider a discount rate of 3% (with sensitivities of 1%, 5% and 7%) to be appropriate for this investment?

Yes - we strongly support 3% real, and the 1% / 5% / 7% sensitivity range, because:

- Long-lived, intergenerational infrastructure enabling decarbonisation warrants a social/declining discount rate, consistent with international appraisal practice (e.g. declining long-term rates in UK Green Book-style frameworks) and with the 'enabling renewables' purpose of this MCP.
- The risk being priced is asymmetric: the social cost of under-building (curtailed renewables, prolonged gas dependence, repeated 2024-style price events, foregone regional investment) far exceeds the carrying cost of early capacity.
- A 5% Capex IM default embeds private-sector hurdle logic into a public-good enabling asset; 3% better reflects the consumer and national benefit stream over the (extended - Q14) calculation period.
- Transmission investment will typically result in a number of positive externalities for society, both social and GDP enhancing. These positive outcomes are seldom able to be fully captured in a financial model. Having a lower discount rate allows for the accommodation of the positive benefits to NZ which are created and increase over time.
- We caution against decisions pivoting on the 7% sensitivity; it should be reported but not determinative.

Unquantified Benefits

Q16: Are there any unquantified benefits or other net economic benefits that should be considered in this investigation?

Yes, there are numerous, as noted below.

- **Regional economic resilience.** The recent wave of energy-cost-driven closures and curtailments - Winstone Pulp (230 jobs), Kinleith paper, Pan Pac's pause, McCain's Hastings exit (~21% of the process-vegetable sector, ~$18m/yr grower returns), Heinz Wattie's restructuring - shows what energy scarcity does to regional food production and industry. Abundant, affordable regional renewables are the durable answer, and that avoided economic loss is a real benefit even if unquantified in the Investment Test. We have highlighted the need to support the rapid transition off gas in the region - which is consistent with the Government's new Gas Transition Loan Scheme.

- **Resilience of supply - closing the ring.** Linking Bunnythorpe -Tararua - Hawke's Bay at 220 kV creates a second resilient path into Hawke's Bay and the Wairarapa, reducing reliance on single corridors whose vulnerability Cyclone Gabrielle exposed (Redclyffe). N-1 and HILP resilience value should at minimum be qualitatively weighted.

- **Dry-year and portfolio benefits.** Wind-solar-storage at scale in a winter-strong wind region reduces dry-year exposure and dependence on declining gas. Paired with storage it provides capacity value the current 'no VoLL' framing does not count.

- **Regional jobs and economic uplift.** Delivering significant employment during construction and operations (with the CWO REZ projects ~1,850 construction and ~930 ongoing jobs from a comparable programme), while also enabling new load (data centres, process heat) that anchors high-quality, long-term regional employment.

- **Community benefit, handled honestly.** Communities along new corridors will have real concerns. Our position: name the impacts, share the value. A structured community benefit-sharing scheme funded from the programme (e.g. the NSW access-fee model channels hundreds of millions over 33 years; Stage One $72.1m) converts an unquantified cost into a quantified local benefit - and is the difference between consentable and contested. We commit to working with councils, iwi and landowners on this design.

- **Competition benefits**. A deeper, more diverse regional generation stack increases wholesale competition and lowers prices nationally - a quantifiable market benefit that should be in the Investment Test, not outside it (see Q18).

Counterfactual Assumptions

Q17: What assumptions should we make about the counterfactual for your project (i.e. without a coordinated Tararua grid upgrade)-including how you would connect, and whether a coordinated upgrade would change your project's timing, cost, or scale?

Kākāriki will continue to develop this resource either way. But the counterfactual should assume:

- **Connection method:** individual 110/220 kV spur connections, built project-by-project, each privately funded and sized only for that project - duplicative easements, more landowner impact, and stranded incremental capacity.
- **Timing:** materially slower. Each project carries the full first-mover cost and the '$250m stalemate' dynamic persists; FIDs slip to match piecemeal connection windows. Expect 3-5+ year delays versus the coordinated case and a smaller cumulative build by 2040.
- **Scale:** projects shrink to fit residual 110 kV headroom (the ~100 MW spur limits), hybridisation is curtailed, and the Waipawa cluster largely does not proceed - the counterfactual should show >1 GW of resource left undeveloped or exported inefficiently.
- **Pipeline expansion:** our phased expansion plans in the region of a further ~1.3 GW benefit with the coordinated case; under the counterfactual that capital deploys later, elsewhere, or offshore.
- **Cost:** the sum of individual connections exceeds the coordinated programme cost - we ask Transpower to quantify this explicitly, as it is the core economic case for the MCP.
- **Opportunity Cost:** The region and New Zealand may well lose the opportunity to retain existing energy intensive industries and attract new ones if there is an actual or perceived lack of co-ordination or commitment to unlock the renewable energy resources and strength the electricity infrastructure.

Market costs / benefits

Q18: Are there any other market costs or benefits which should be reflected in our Investment Test analysis?

Yes, there are several as noted below.

- **Competition/wholesale price effects** of >1 GW of new entrant generation (see Q16) - suppressed wholesale and ancillary prices are a transfer plus an efficiency gain from reduced scarcity events.
- **Avoided curtailment and SPS run-back costs** on existing assets (Te Āpiti run-backs under the current SPS are a today-cost of the constraint).
- **Avoided fuel and carbon costs** from displacing gas/coal generation, valued consistently with the declining gas availability in Q2 - including avoided LNG import dependence.
- **Avoided distribution and connection capex:** RETA found average new-connection costs of ~$1.8m/MW in the region; a coordinated grid with capable GXPs reduces the distribution-level spend EDBs would otherwise incur (Powerco's Electricity Centric case alone was ~$279m).
- **Storage co-benefits** (reserves, voltage, system strength, dry-year capacity) where BESS is enabled by the upgrade.
- **Economic benefits** enabled for NZ from transmission investment. In particular, those noted in our response Question 16. Ideally these are formally ascribed a value, not just a narrative/side-note.
- **Accelerated electrification of transport and industry:** The economic impact of reducing fossil fuel demand and imports on the regional and broader economy should be taken into account. The potential to reduce volatility of energy pricing and exposure to global supply constraints should also be included in the analysis.
- **Supply chain benefits:** The costs of construction of energy and infrastructure in New Zealand are regarded as high and it is recognised that historically this has been driven in part by the lack of a pipeline of projects for the construction and delivery sector. The resurgence of PPP projects in New Zealand is helping to attract new global and regional companies who are competing for large scale infrastructure projects, and this has also been seen with the substantial increase in the pipeline of wind, solar and BESS projects nationally. A project of the scale of The Tararua MCP is likely to have the same impact especially when coupled with other major electricity infrastructure projects which are proposed.


Kākāriki