



Meridian.

2024 Investor Day

25 JUNE 2024

Lake Manapōuri in the Fiordland National Park



FTSE4Good

Member of
**Dow Jones
Sustainability Indices**
Powered by the S&P Global CSA



Today's agenda

9.30am - 9.40am	Welcome	Owen Hackston	Investor Relations Manager
9.40am - 10.00am	Opening comments	Mark Verbiest	Chair
10.00am - 10.20am	Strategy and priorities	Neal Barclay	Chief Executive
10.20am - 10.40am	New Zealand's Aluminium Smelter	Chris Blenkiron	Chief Executive and General Manager, NZAS
10.40am - 11.10am	Morning tea		
11.10am - 11.30am	NZAS contracts	Mike Roan	Chief Financial Officer
11.30am - 11.50am	Meridian Retail	Lisa Hannifin	Chief Customer Officer
11.50am - 12.10pm	Energy system modelling	Rory Blundell	Group Strategy Manager
12.10pm - 1.10pm	Lunch		
1.10pm - 1.30pm	Development pipeline	Rebecca Knott	Renewable Development Manager
1.30pm - 1.50pm	Consenting	Guy Waipara	General Manager Development
1.50pm - 2.10pm	Generation	Tania Palmer	General Manager Generation
2.10pm - 2.20pm	Closing comments	Neal Barclay	Chief Executive



Mark Verbiest, Chair

Opening comments

Maintenance at
Meridian's West Wind
Farm near Wellington

25 JUNE 2024

2024 INVESTOR DAY

Energy policies from the coalition government

- Ceased work on Onslow pumped hydro investigations. MBIE continuing work on security of supply.
- Offshore oil and gas exploration ban repealed.
- Net Zero by 2050 reiterated with doubling of renewable electricity included.
- Repeal Natural and Built Environment and Spatial Planning Acts.
- Establishing a streamlined consenting and permitting process for significant projects.
- Emissions Trading Scheme (ETS) settings for the next five years finalised in September 2024.
- Agriculture removed from ETS.
- GIDI funding and Clean Car Discount ceased.



Meridian's Te Āpiti Wind Farm north of the Manawatū Gorge

Energy transition

- Represents a significant investment cycle: \$30B+ new sector generation investment.
- Demand response established as a risk management solution.

However, we are experiencing transition challenges:

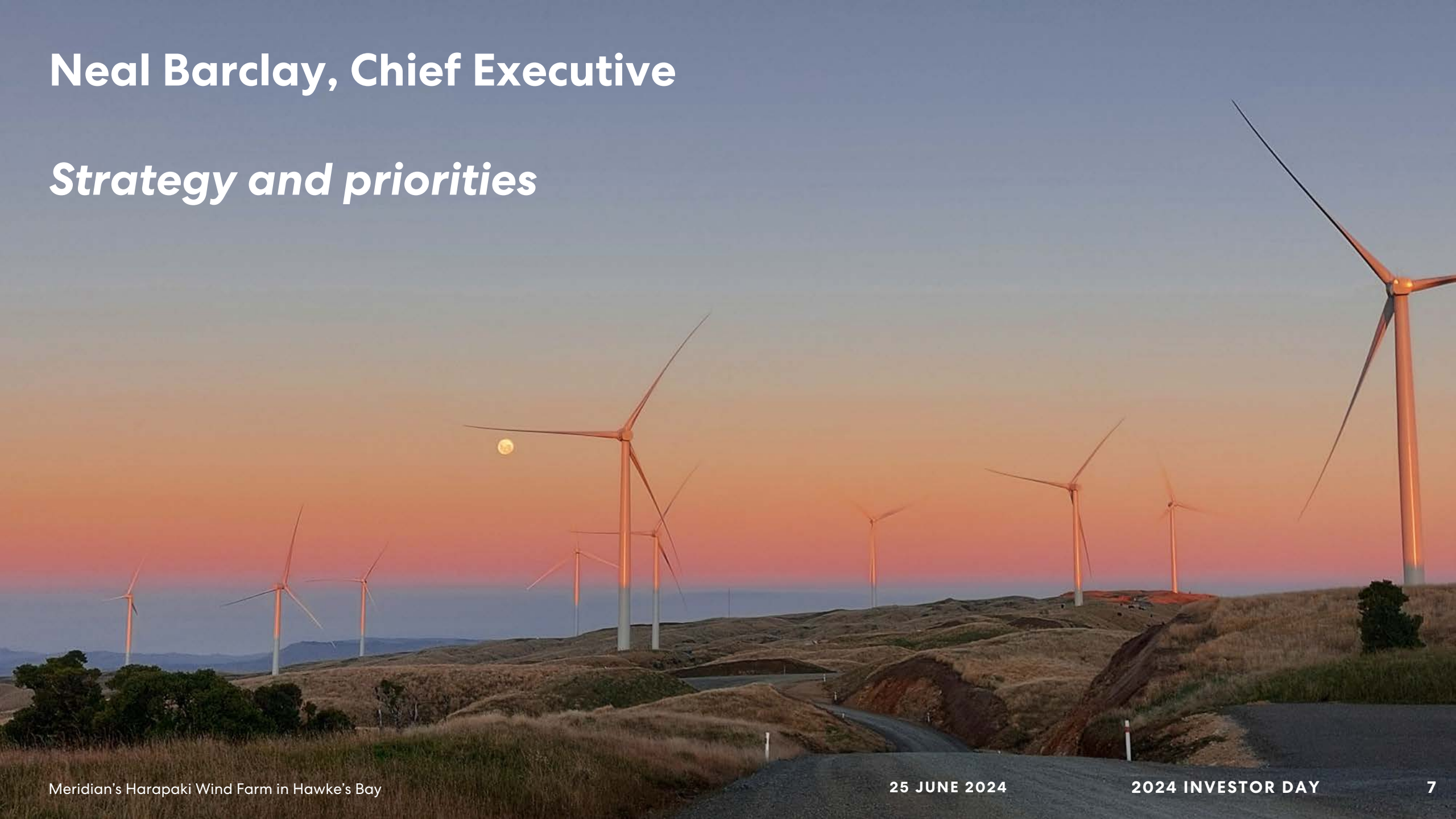
- Domestic gas supply decline and energy security.
- Ability of grid investment to keep pace.
- Consumer price pressures: wholesale prices, grid/network resilience and expansion, cost of capital volatility.
- Complexity in the consenting framework.



Headwaters of Lake Pūkaki in the Mackenzie Basin, Canterbury

Neal Barclay, Chief Executive

Strategy and priorities



Our strategy map

Te kaupapa
Our purpose

Clean energy for a fairer and healthier world

Te rautaki
Our strategy

An all-encompassing focus on climate action

Te kaupapa matua
Our priorities

Grow renewable generation

To speed our path to a resilient, net zero future

Deliver cleaner, cheaper energy

Through innovation that unlocks value for customers

Deliver operational excellence

So everything we do aligns to deliver on our goals

Grow capability and culture

Because how we do the mahi is what will make the real difference

Te arotahinga
Our focus

Te whaipāinga
Our values

Be a good human

Be gutsy

Be in the waka



Te mahi
Our key initiatives

- Accelerate Aotearoa New Zealand's decarbonisation by delivering scale energy projects at pace:
 - Build renewable generation options.
 - Deliver on our 7 in 7.
 - Secure long-term access to water.
 - Accelerate electrification of transport and process heat.
- Grow system flexibility:
 - Grow our dispatchable MW capacity.
 - Bring dispatchable customer capacity to market.
 - Develop Southern Green Hydrogen.

- Develop an innovation culture that delivers digital, and data driven customer experiences.
- Expansion of the energy product set that unlocks the value of transport electrification, process heat and demand flex.
- Continued investment in energy hardship and community programmes that promotes equitable access to the benefits of the energy transition.
- Policy advocacy that promotes climate action and supports New Zealanders through the energy transition.

- Build operational flex and agility while sustaining excellent asset productivity.
- Modern data and digital systems to promote collaboration, operational efficiency, innovation and data-driven decisions.

- Grow a diverse and inclusive, skilled workforce that reflects the country we live in.
- Nurture leadership capability to support the cultural and digital maturity of a future Meridian.
- Our developing understanding of the Māori world view helps build long term relationships with tangata whenua and better outcomes for all.
- Safety leadership that grows in maturity as we build into the energy transition.
- Sustainability culture and leadership that benefits people and planet, inspires climate action, and attracts investors.

Strategy spotlight: process heat

Te mahi
Our key initiative

Te whaingā
Our targets

Horizon 1
FY25

Horizon 2
FY26

FY27-29

to FY30

Horizon 3
to FY50

Accelerate electrification of transport and process heat

- Install 75 fast chargers by the end of FY25
- Convert 200GWh of MOU process heat to contracts

- Additional 200GWh of process heat under contract in 2027

- NZ's largest and most loved EV charging network by FY2028
- 1,000GWh of process heat under contract



Meridian growth

- 116GWh commissioned and operational, \$4M revenue FY24 YTD.
- 234GWh under construction.
- 1,000GWh under contract by FY30.

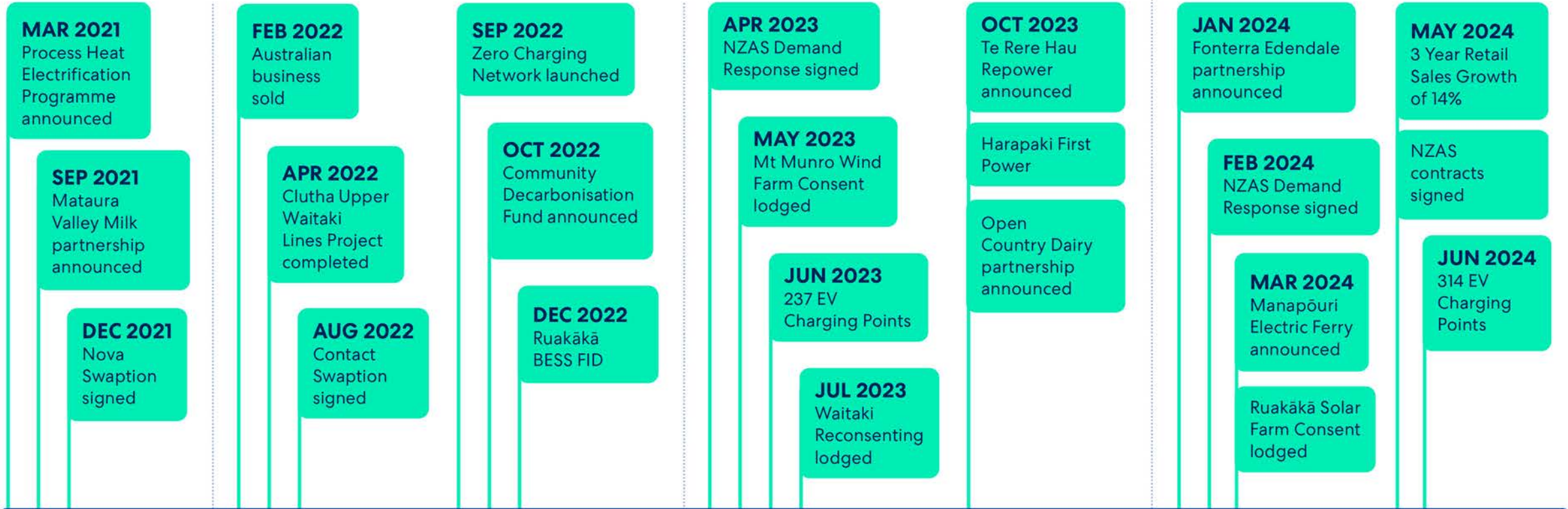


Market opportunity

- Across the South Island, there is 1.46GW of non-renewable heat capacity primarily from coal in the South Island (*DETA consulting*).
- Process heat accounts for 34% of New Zealand's energy consumption (*MBIE*).
- Industrial electrification via process heat has huge potential (4+TWh by 2050) (*Meridian*).



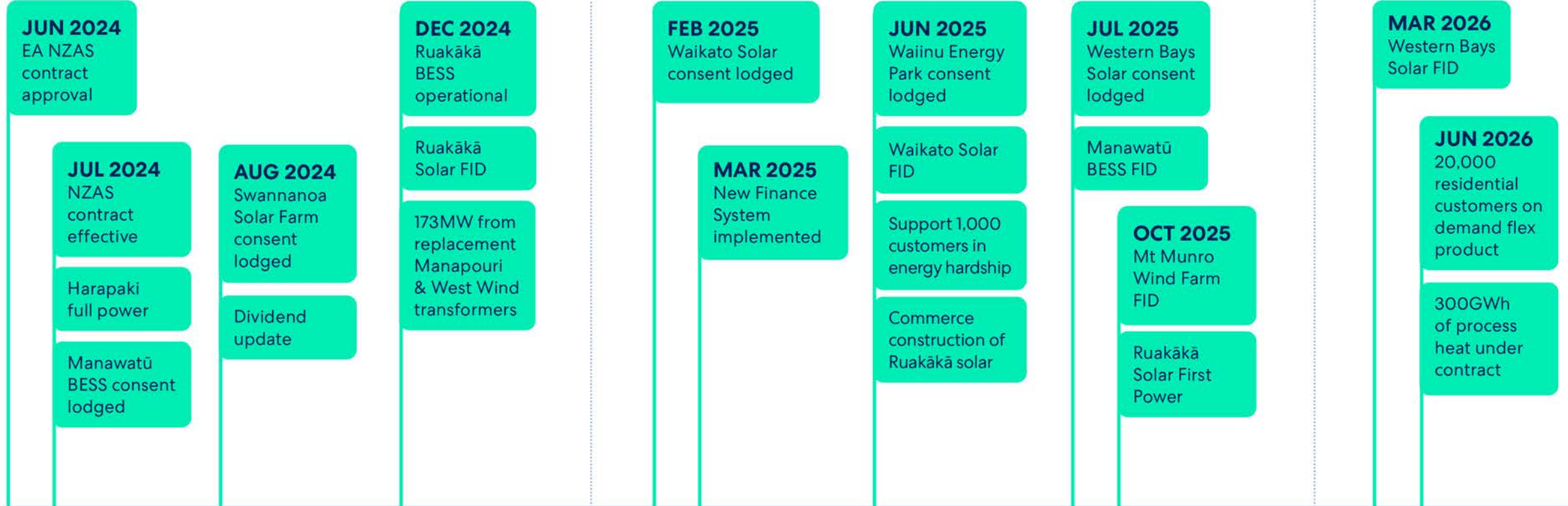
Looking back



MAY 2021
Investor Day

JUN 2024
Investor Day

Looking forward



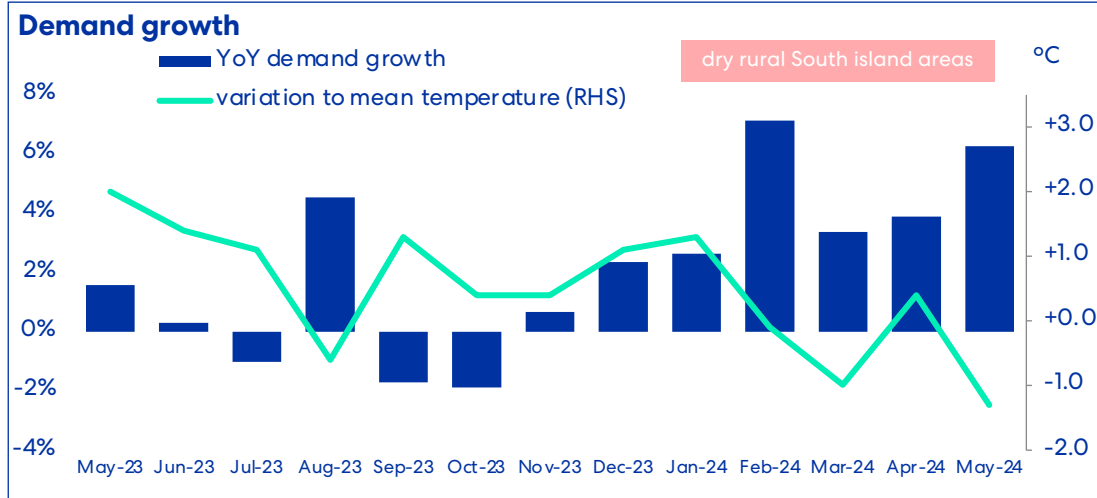
JUN 2024
Investor Day

JUN 2026

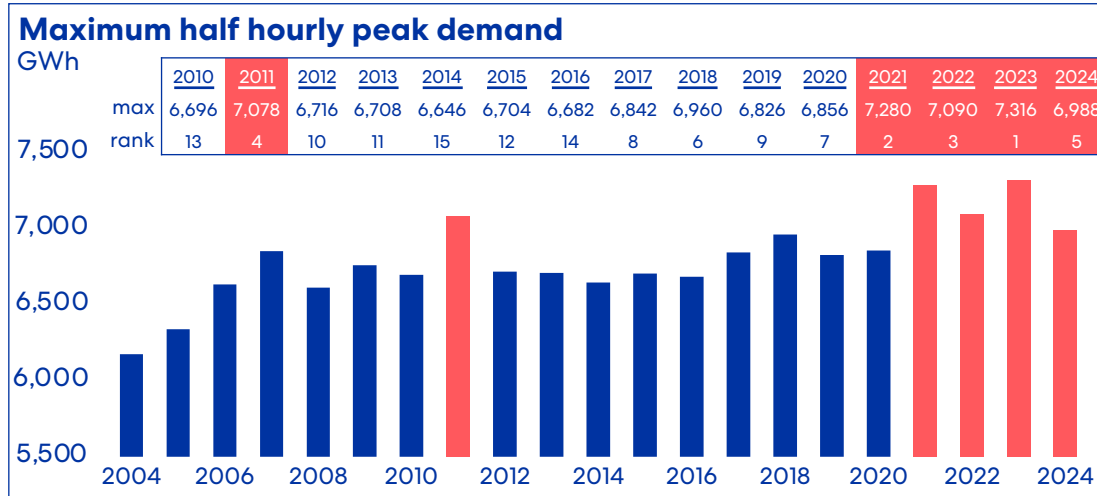
Note: Jul 24 NZAS contract effective date is subject to satisfaction of remaining conditions precedent

Demand growth

Near-term growth is influenced by climate factors



And winter peaks are growing



Long-term growth is supported by fundamentals



NZ population >6M by 2050 (Stats NZ)

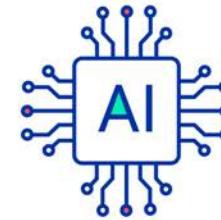
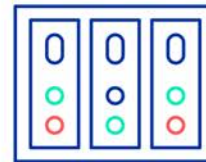


~1m electric vehicles by 2035 (Meridian)



4GW+ of thermal process heat (Meridian)

Green hydrogen



Data centres and AI ??

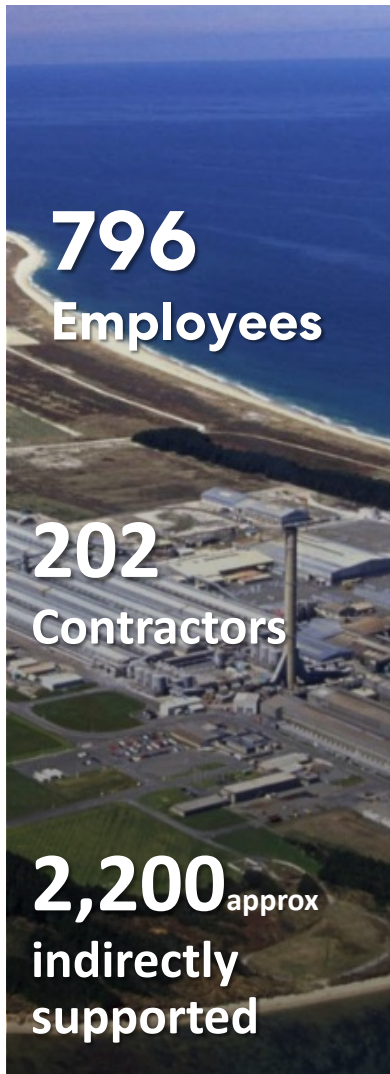


Rio Tinto

Meridian Energy Investor Day

25 JUNE 2024

NZAS Overview



796
Employees

202
Contractors

2,200_{approx}
indirectly supported



2t/t
aluminium

Carbon
intensity



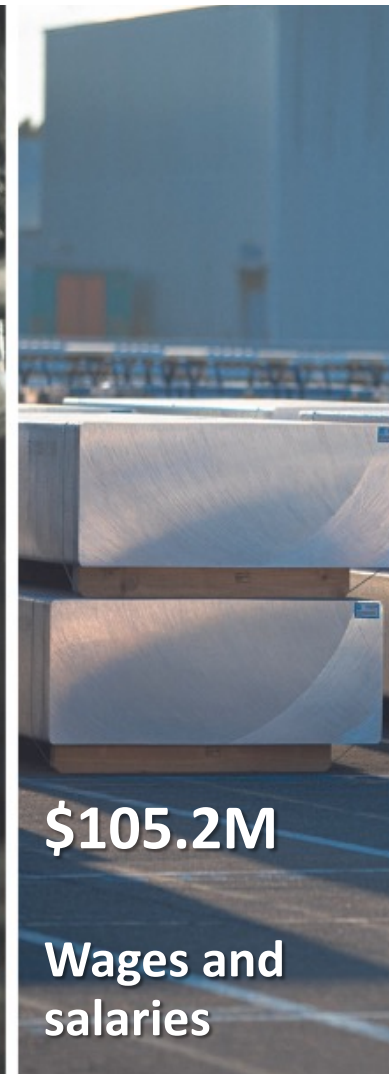
13t/t
aluminium

International
average



337,176

Saleable
tonnes



\$105.2M

Wages and
salaries



\$452.6M

Economic
Contribution

Carbon Our place in the world

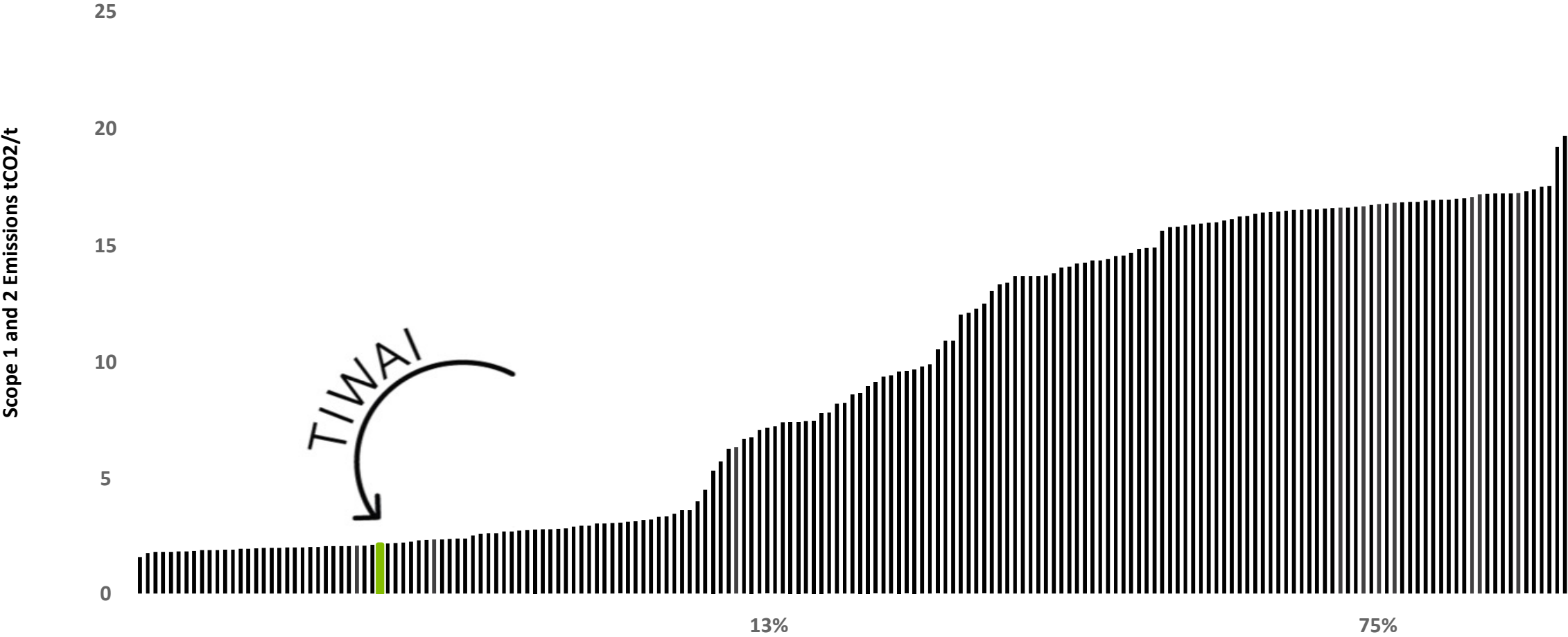


Chart source: Industry available information

Carbon Our place in Aotearoa

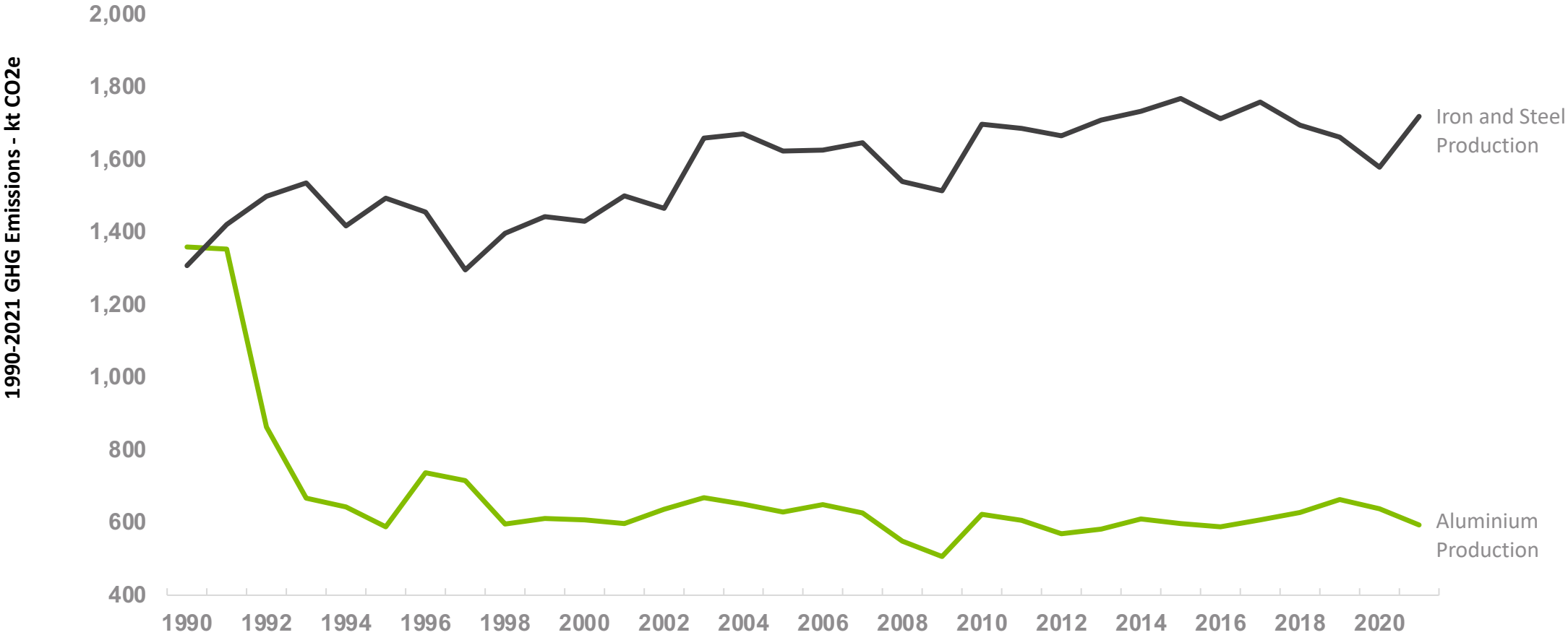


Chart source: : MfE 'NZ Interaction Emissions Tracker' (<https://emissionstracker.environment.govt.nz>)

Ngāi Tahu Relationship

Mā whero, mā pango, ka oti ai te mahi

With red and black together the work will be complete



Memorandum of Understanding

- Signed on 4 October 2022.
- It covers the overarching relationship, remediation co-design and community funding.
- Established **Advisory Group** to oversee MoU implementation.
 - Three Awarua Rūnaka / Ngāi Tahu representatives and three Rio Tinto / NZAS representatives

Remediation Advisory Working Group

- Made up of four Awarua Rūnaka / Ngāi Tahu representatives and four NZAS representatives
- This group will focus on progressive remediation.

Community Development Fund

- \$2 million fund launched in April 2023. \$1.15M allocated in 2023.
- Investment in community infrastructure, enhanced environmental & social outcomes and a strong, sustainable regional economy.

Remediation Journey Highlights



Feb 2021

Rio Tinto confirms it will return Ouvea Premix stored in Southland warehouses to site.



May 2022

Onsite landfill permanently closed.
Alternative waste management systems adopted.



Throughout 2023

Export of all 24Kt of Ouvea that was stored in community for processing and recycling.



Nov 2023

Extensive independent report into environmental impact of smelter operations concludes low risk of human or kai moana impact.



Feb 2024

Export of stored SCL commences to Australia.
Feasibility of onsite SCL processing facility ongoing.



Questions?

A photograph of high-voltage transmission towers and power lines stretching across a body of water, likely a reservoir or lake, under a blue sky with light clouds. The towers are steel lattice structures, and the lines are multiple parallel cables. The water is calm, reflecting the sky and the towers. In the background, a low-lying industrial area is visible, including what appears to be an aluminium smelter.

Mike Roan – Chief Financial Officer

NZAS contracts

NZAS Base Contract

Other than force majeure, the Base Contract is straightforward. It includes the following elements:

- A sustainable price beginning 1 July 2024 subject to conditional CPI escalation from 2028.
- A 20-year term, up to 31 December 2044 noting that NZAS can exercise a 2-year termination right from 31 December 2032 if it pays \$180M.
- 472MW until 31 December 2024 and 377MW from 2025 onwards.
- Prudential support of \$235M in the first 10 years and \$180M for the remainder.

The force majeure provisions are summarised below:

- If either party faces an event outside its reasonable control, then:
 - In the case of NZAS, that event impacts more than 33% of normal operations at Tīwai; or
 - In the case of Meridian, that event impacts more than 21% of Manapōuri and Waitaki generation.
- Then the affected party may call force majeure (which comes into effect 30 days after notice provided).
- The effect of force majeure is to reduce Base Contract quantity by the proportion which normal generation or normal consumption is reduced. In addition, demand response calls may not be made during NZAS force majeure.
- If the force majeure event has not been remedied or is not capable of remedy by the party that called force majeure within two years, then either party may terminate the agreement.

NZAS Demand Response Agreement

- The term of the Demand Response Agreement (DRA) mirrors that of the Base Contract.
 - Under the DRA, four demand response Options are exercisable by Meridian.
 - If an Option is exercised, Base Contract quantity will be reduced by 18.75MW, 37.5MW, 75MW or 138.75MW.
 - Stand down periods apply between the exercise of Options.
- In return for the optionality, NZAS will be paid an annual premium.
 - If an Option is called, a payment is made to NZAS for actual reduction.
 - The annual premium and price for reduction escalate in the same way that the Base Contract price escalates.
- NZAS chooses whether it reduces physical consumption when an Option is called.
 - If it does, then consumption should reduce by 25MW, 50MW, 100MW and 185MW.
 - If it does not, NZAS loses up to half of the annual premium and could be exposed to the spot price for volume consumed above the Base Contract quantity.

NZAS Demand Response Agreement

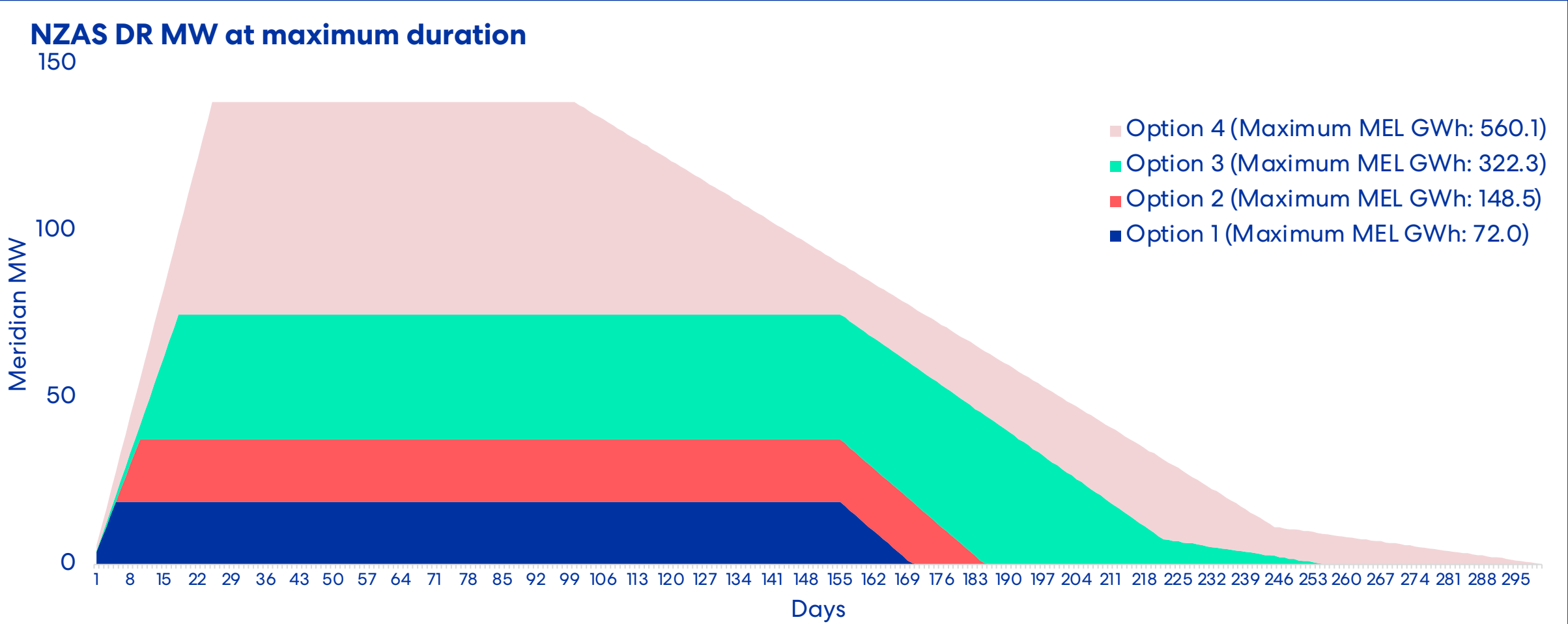
Summary of Demand Response Options

Option	Equivalent reduced consumption (MWh per hour)	Exercisable Reduction from Meridian demand response agreement (MWh per hour)	Usual Ramp-Down Notice Period	DR Period (equivalent number of days)	Usual Ramp-Down Period (equivalent number of days)	Usual Ramp-Up Notice Period (equivalent number of days)	Usual Ramp-Up Period (equivalent number of days)	Maximum Calls
1	25	18.75	3 Business Days	Minimum 10 days, maximum 150 days	5 days	3 days	15 days	Unlimited, but the Option cannot be exercised more than 4 times in any 12-month period
2	50	37.5	3 Business Days	Minimum 15 days, maximum 145 days	10 days	3 days	30 days	Unlimited, but the Option cannot be exercised more than 2 times in any 18-month period
3	100	75	3 Business Days	Minimum 22 days, maximum 137 days	18 days	5 days	100 days	The Option cannot be exercised more than 8 times over the Term
4	185	138.75	5 Business Days	Minimum 30 days, maximum 75 days	25 days	5 days	200 days	The Option cannot be exercised more than 4 times over the Term

Stand down periods apply between the exercise of Options.

NZAS Demand Response Agreement - examples

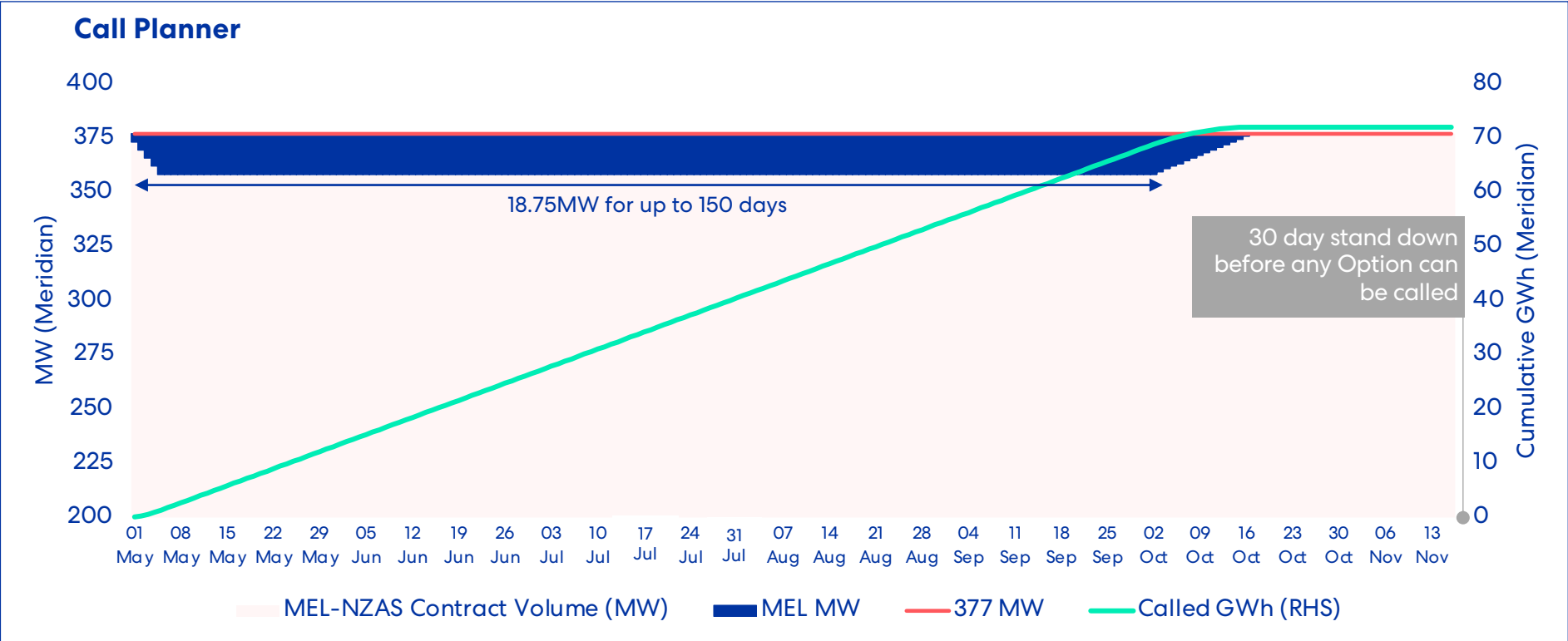
Maximum call volumes associated with each Option



Source: Meridian

NZAS Demand Response Agreement - example 1: exercising Option 1

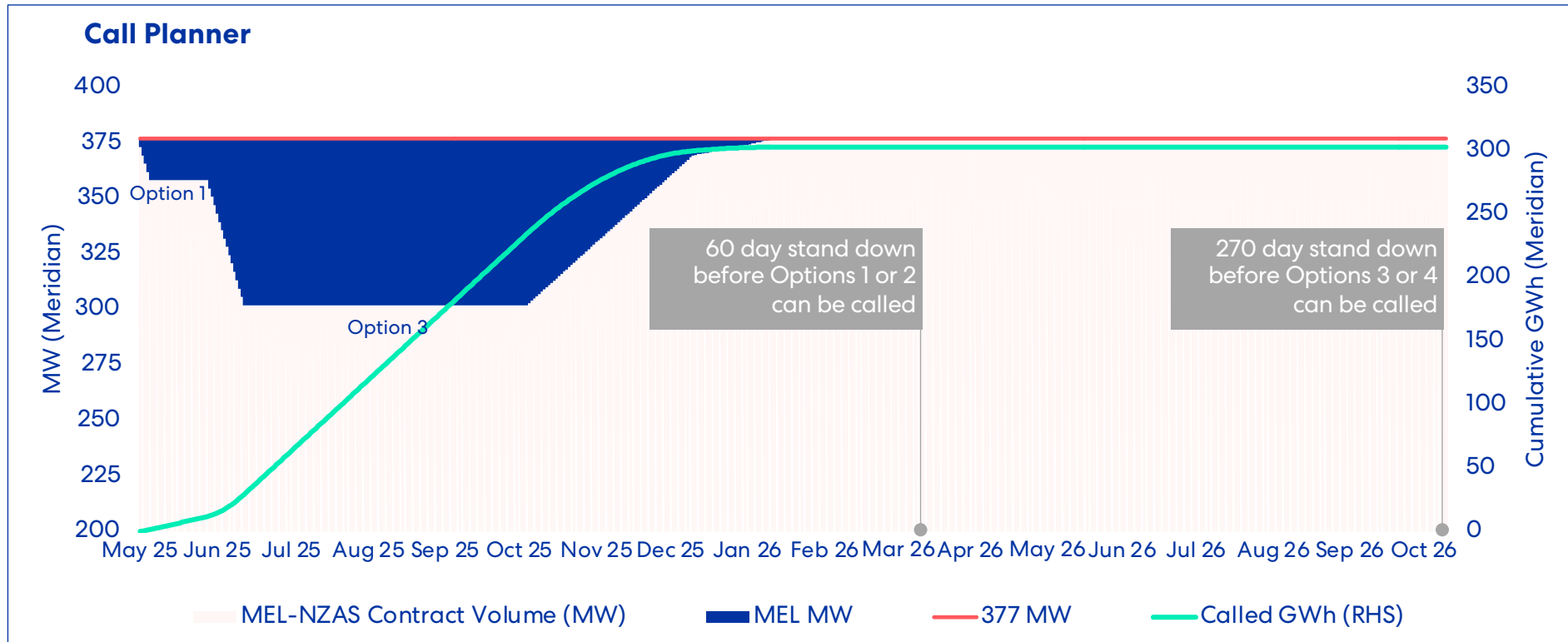
- Meridian provides NZAS with three business days' notice (Notice Period) that it is executing Option 1.
 - In that notice, it also sets out how long it wants the Option for. In this example, the call is for 150 days (the DR Period).
- Base Contract quantity will start to reduce gradually over five days after the notice period (the Ramp Down Period), after which it will sit at 358.25MW (377MW - 18.75MW) for the DR Period.
- At the end of the DR Period, Base Contract quantity will increase gradually over 15 days (the Ramp Up Period).
- The call will end at the end of the Ramp Up Period.
- If Meridian wants to reduce the DR Period, it provides three days' notice after which the Ramp Up Period will commence.



Source: Meridian

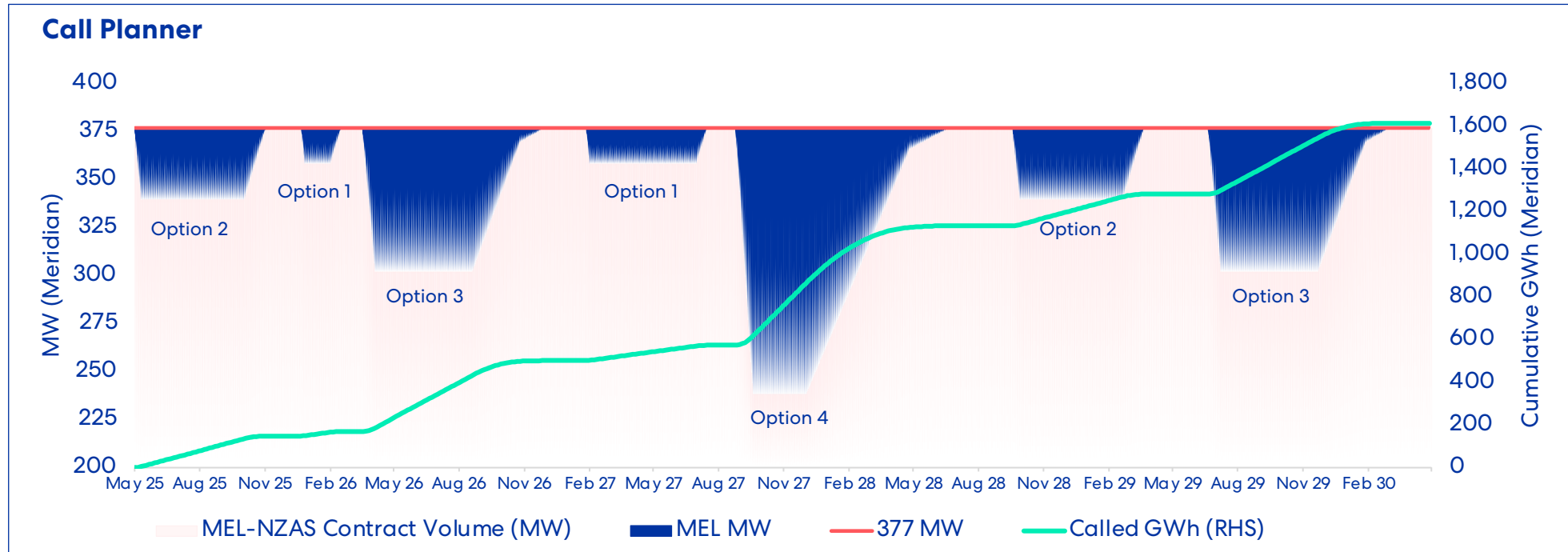
NZAS Demand Response Agreement - example 2: exercising Option 3

- Option 1 has been called as per previous example.
- On day 20 of the DR Period, Meridian gives NZAS three business days' notice that it would like to exercise Option 3.
- The notice also sets out how long Option 3 is exercised for. It cannot be called for more than 137 days (the maximum DR period) less the DR Period that has already elapsed for Option 1, so Option 3 is called for 114 days.
- On day 24, Base Contract quantity will reduce gradually over 15 days after which it will sit at 302MW (377MW - 75MW).
- At the end of the Option 3 DR Period, Base Contract quantity will gradually increase over 100 days, after which the Option will end.
- If Meridian wants to reduce the DR Period, it provides five days' notice after which the Ramp Up Period will commence.



NZAS Demand Response Agreement and Meridian trading

- An internal information barrier was set up during negotiations so that Meridian's traders would not have information that might impact trading decisions. That barrier was removed when the contracts were publicly announced.
- Since then, Meridian traders have built a model to optimise call volumes subject to certain constraints.
- Meridian traders can use that model to assess exercise strategies – in this case, call volumes over a five-year period.
- That optimisation calls Options 1, 2, 3 and 4 subject to standdown periods.
- It has also confirmed that the total average/maximum Option volume of 400GWh/800GWh is available.
- As an interesting fact, that model has also confirmed that it would take 17 years to extinguish maximum call volumes should Options 3 or 4 be called consecutively.



Source: Meridian

Other elements of the NZAS Demand Response Agreement

Maximum Number of Calls

- Each Option exercise represents one call.
- If Meridian exercises Option 1 and then Option 3, that represents a call for Option 1 and Option 3 respectively.

Demand Response Premium (DRP)

- Not payable in the first six months of the contract.
- After six months, half of the DRP is at risk each year based on calculations of actual volume reduced and expected profile volume reductions. The way this works is as follows:
 - Half of the DRP is paid monthly to NZAS (in arrears).
 - The remaining half of the DRP is paid at the end of a 12-month period based on:
 - If actual volume reductions in that year are greater than 95% of the expected volume, then that half of the DRP is paid in full.
 - If in that year, actual volume reductions are greater than 51% but lower than 95%, then the payment that is made is linearly increased from zero to half of the DRP, based on actual volume reductions as a percentage of expected volumes.
 - If in that year volume reductions are less than 51% of expected volume, then that half of the DRP is waived.

Pausing Demand Response Calls

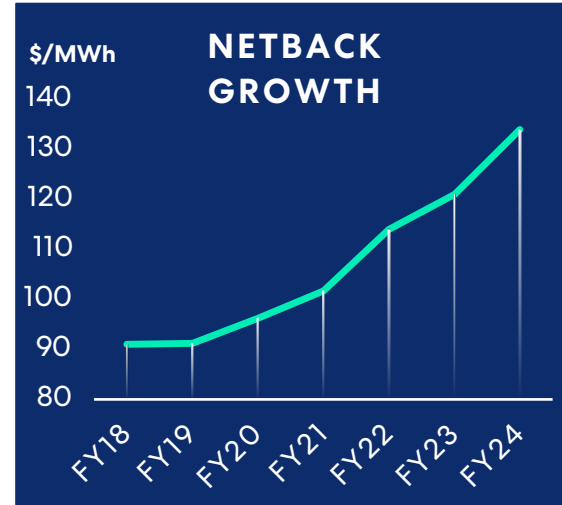
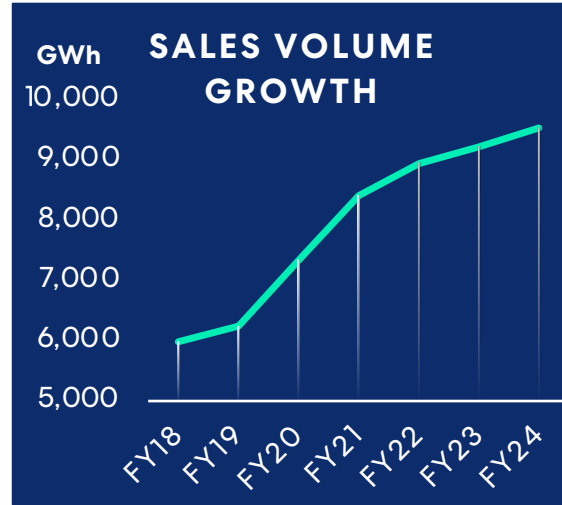
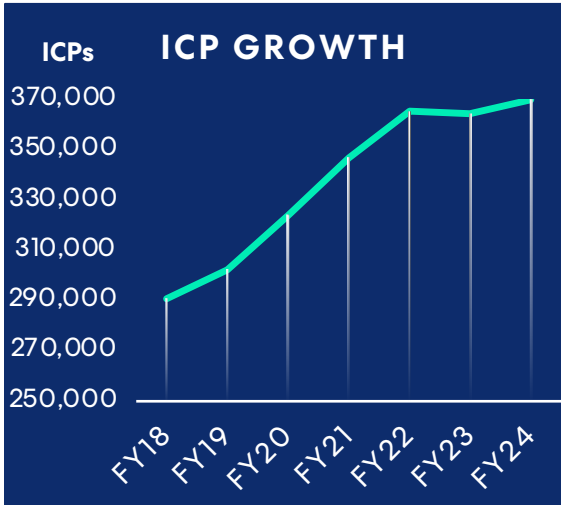
- Meridian can 'pause' notified calls during the ramp up period by issuing a Restricted DR Cessation Notice.
- This 'pause' can only be issued for Options 2 and 3 and can only be issued if consumption has not lifted by more than 40% of the original DR Reduction for that Option.

Lisa Hannifin – Chief Customer Officer

Meridian Retail



Strong, sustained growth and discipline



+25%

+55%

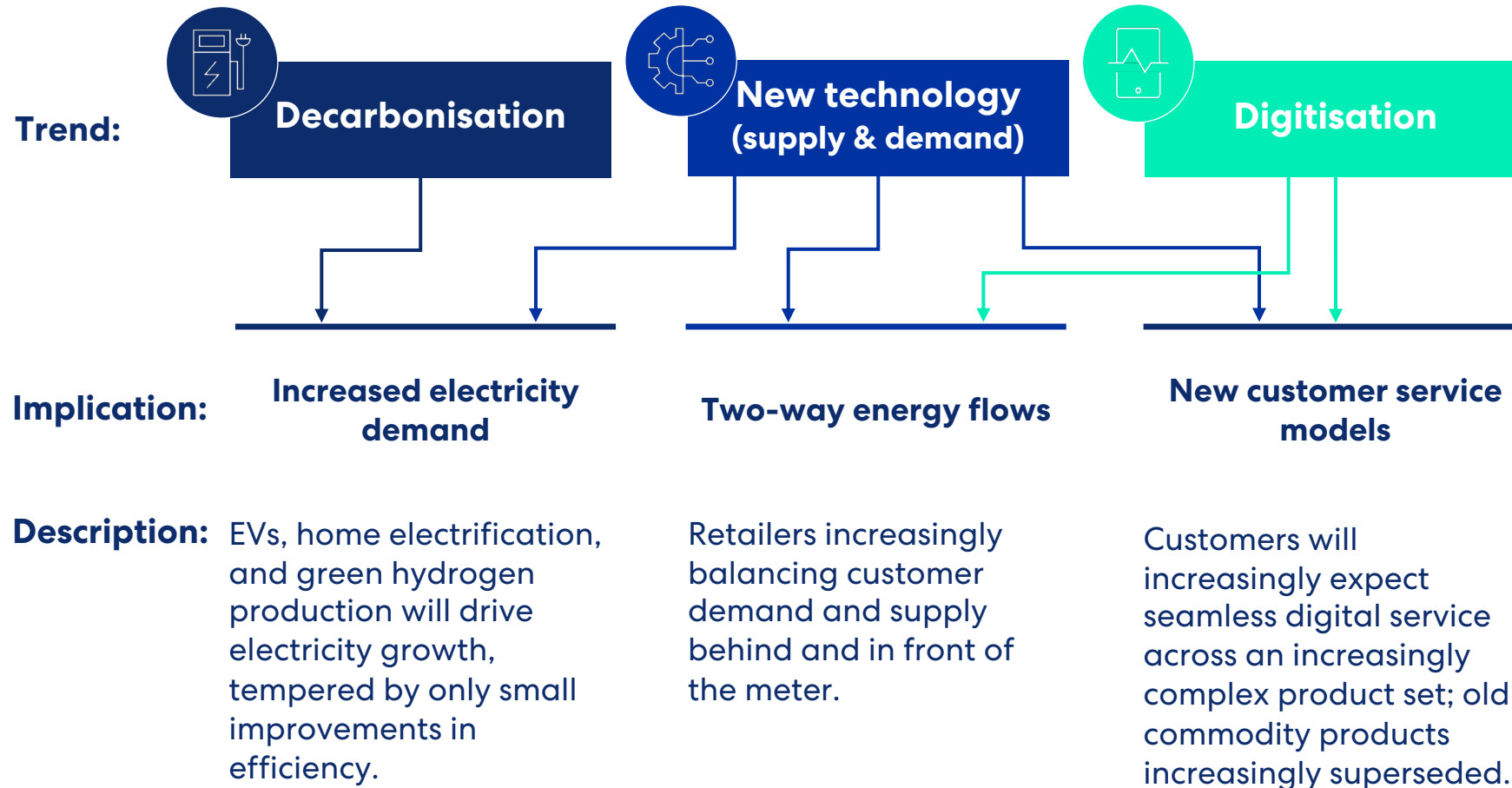
+47%



Meridian's Zero public charging network



Adapting to emerging technologies in changing markets



Driving future value

From



To

Customer demand

Commodity power supply (e.g. heating, cooking appliances)

- TOU
- Non-TOU

Fully electrified home and transport
Mix of grid supply and orchestrated behind-the-meter assets

Market structure

Traditional incumbent led market

Volatile wholesale prices; competition between large generators, behind-the-meter assets and flexible demand

One-way power flows

Bi-directional power flows

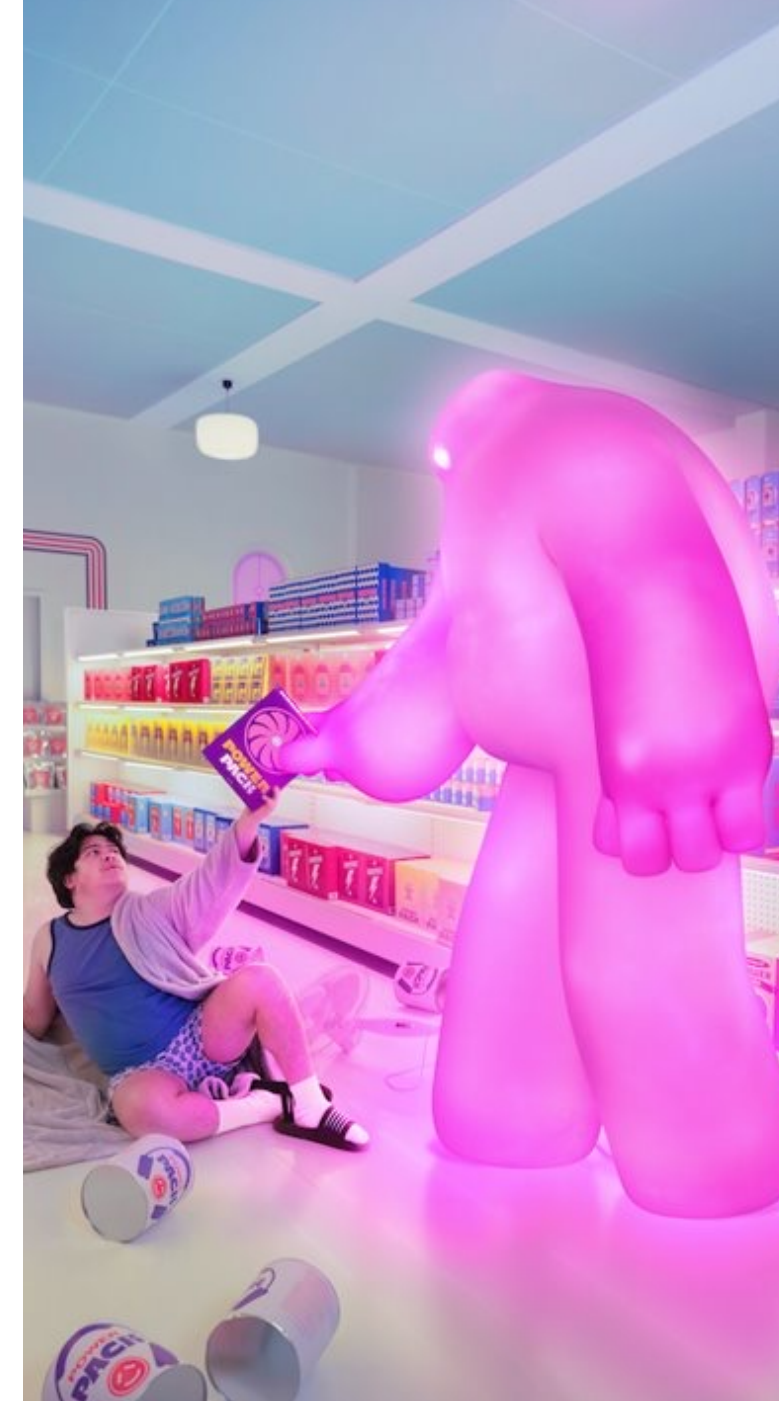
Value creation

Strong wholesale position

Strong wholesale position

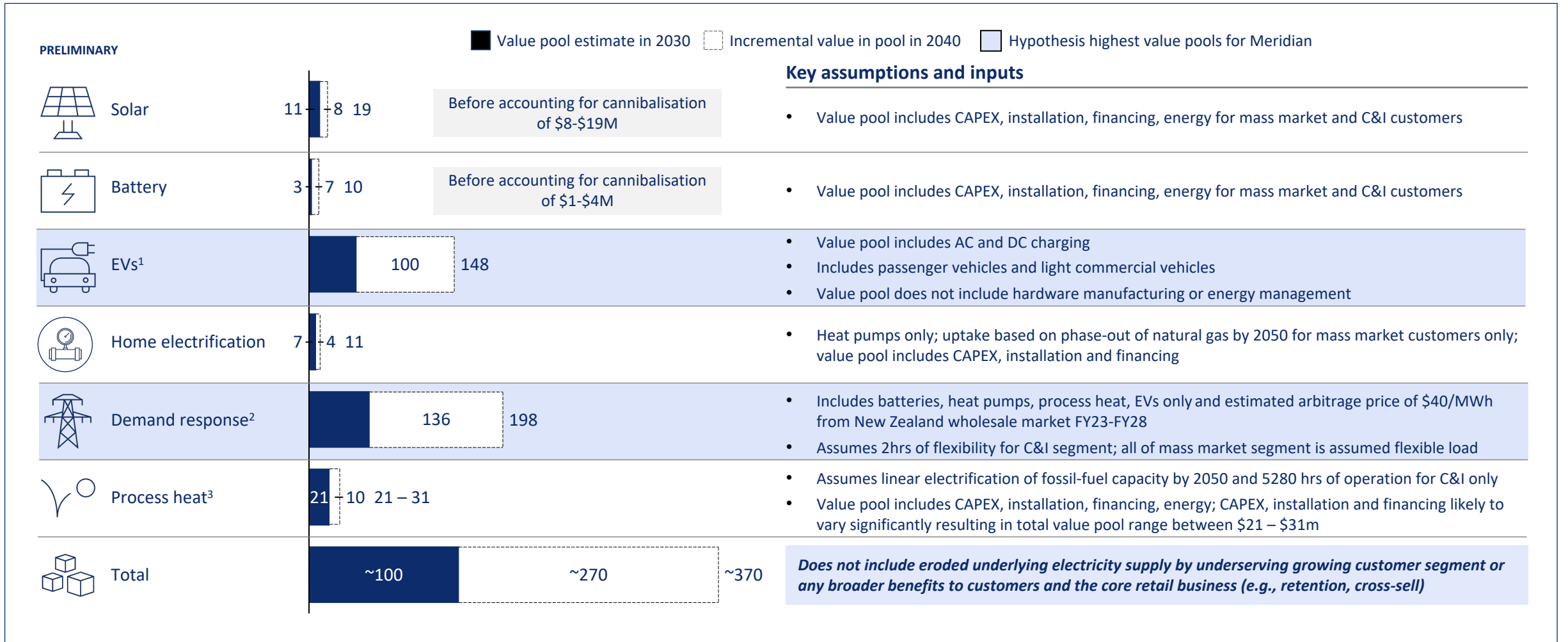
Retail excellence

Ability to seamlessly integrate customer supply across grid and distributed assets



New value pools are emerging and have the potential to contribute ~\$100M to EBITDAF for Meridian in 2030

Potential annual EBITDAF uplift¹ (\$M) for Meridian by innovation value pool for 2030 and steady state (assuming 30% market share)

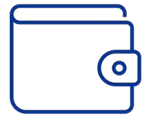


¹⁻³ McKinsey 2023, from their energy global power and energy expert group (See references, page 73)

Targeting new value pools with new propositions



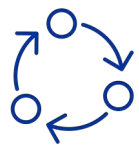
Meridian's perspective on the retail customer fundamentally changes



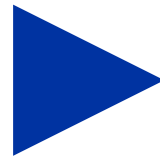
Economic value for customers is based on reductions in total energy spend



A range of international reference points have been considered



Trials and experience to date have highlighted the value that can be created



V2G trial, Meridian Durham Street office, Christchurch



A new way forward



KEY



Next Generation Retail



Base Camp



Customers



Digital

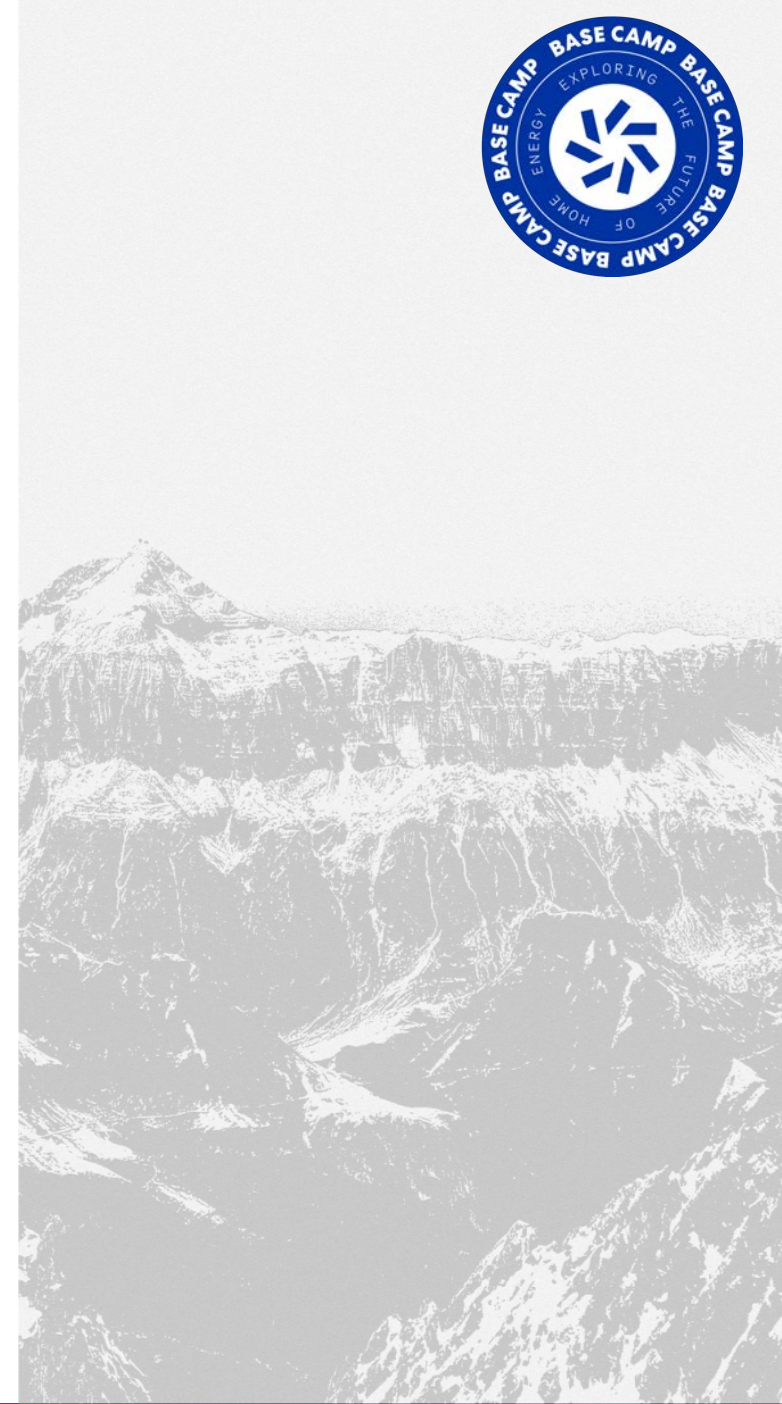
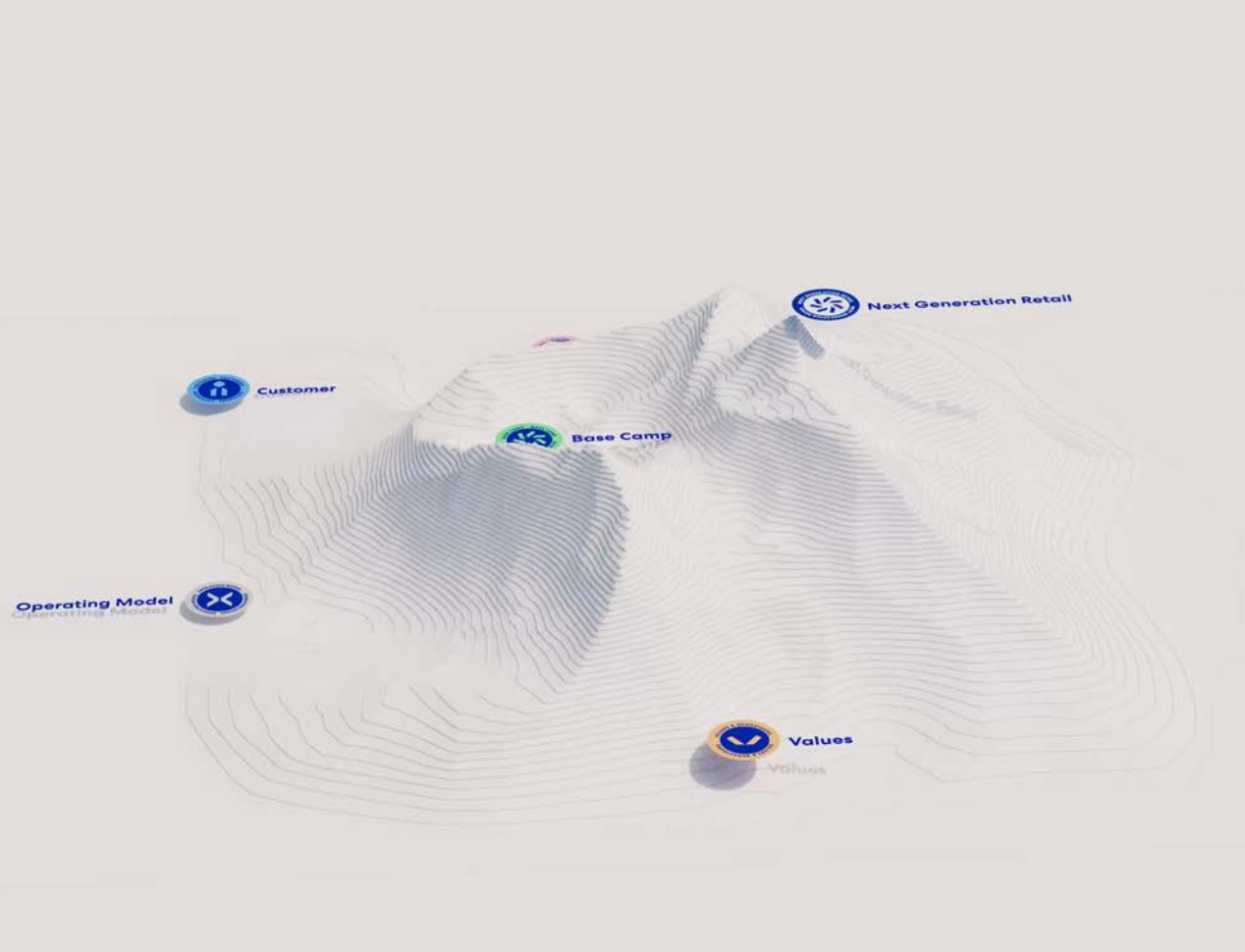


Operating Model



Values & Behaviours

BASE CAMP 



Sharpening our strategy to set us up for success

Purpose:
**Deliver
cleaner,
cheaper
energy**



Ngā mihi

Questions



Meridian.



POWERSHOP

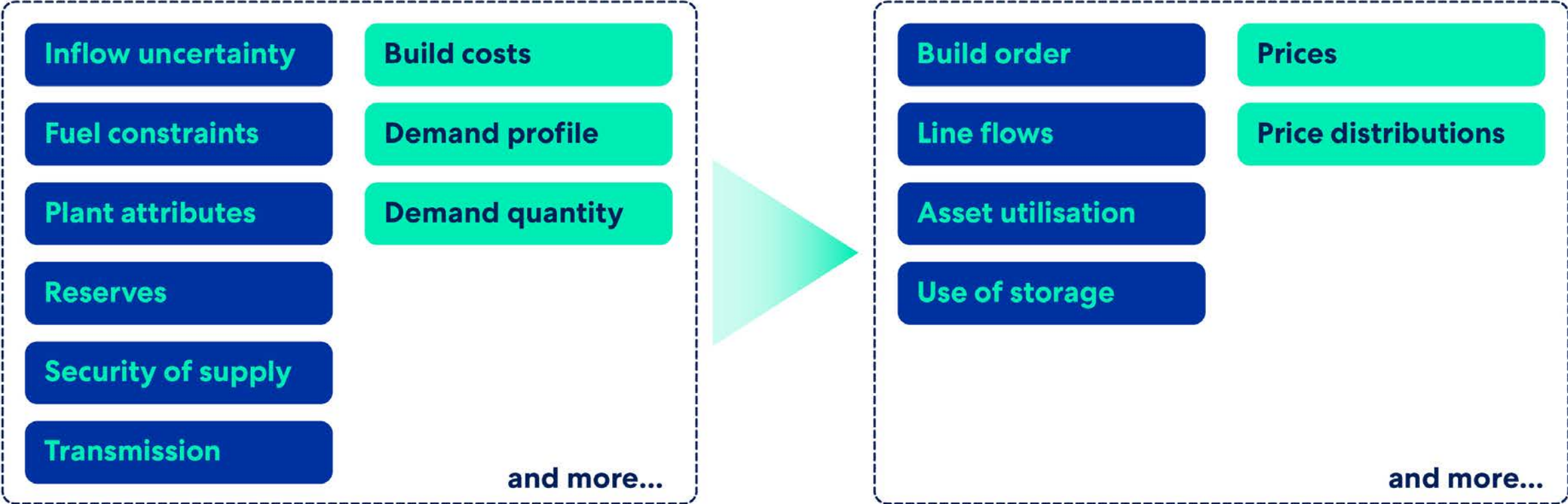
Rory Blundell, Group Strategy Manager

Energy system modelling



Meridian's modelling framework

Meridian has maintained and matured a modelling framework since its inception in 1999... amongst other things, it helps frame strategic choices and underpins our investment approach.



Plausible future scenarios

The Evolution scenario is one of adaptive business-as-usual behaviour:

- Decarbonisation efforts are **modest**.
- **Significant new grid generation** is required.
- Although new generation is primarily renewable, there is still a place for **thermal peaking**.
- Uptake of solar PV, electric vehicles and batteries is **steady**.
- ETS price rises to **\$150/tCO_{2e}**.

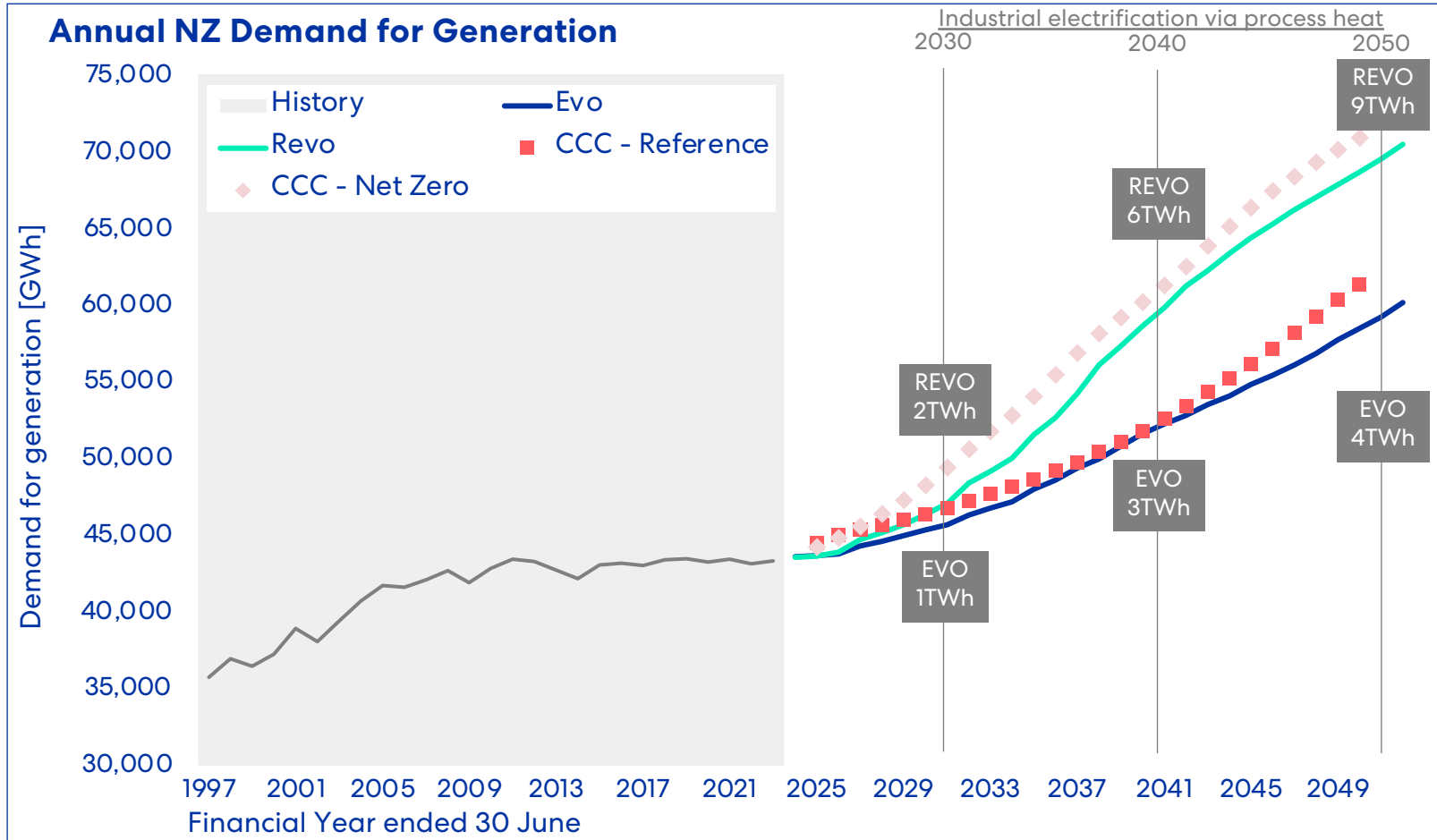
The Revolution scenario represents a global low-carbon future:

- **Significant and rapid decarbonisation** occurs.
- All new generation is **renewable**, and **remaining thermals transition out**.
- Grid-scale battery storage provides reserve as thermal plant retire, and an essential role emerges for **dispatchable demand**.
- **Strong demand-side technology growth**.
- ETS price rises to **\$250/tCO_{2e}**.

It is assumed that the current wholesale and retail market mechanism survive largely intact, and that commercial rationality (represented by Project NPV > 0) drives the majority of investment decisions.

Demand projections

At an aggregate level, our projections are generally aligned with others.



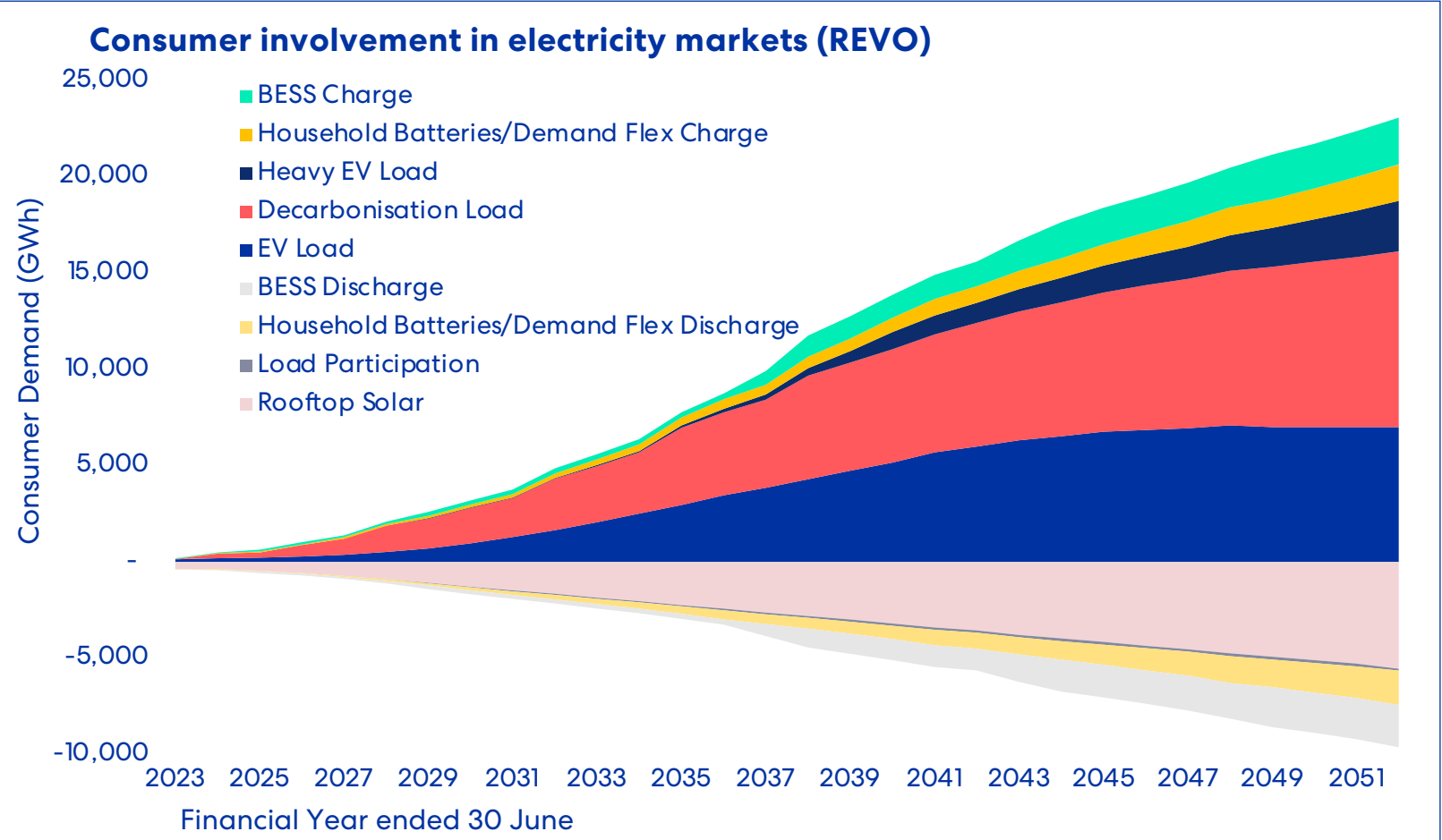
Source: Meridian, He Pou a Rangi Climate Change Commission

- We see EV growth slower at first than some, but a tipping point in early-30s, rapid uptake thereafter: from ~65k today to 500k - 1.1m in the coming decade.
- Industrial electrification via process heat has huge potential (4 – 9TWh by 2050).
- 50% to (almost) 100% more generation needs to be built compared to today.

But it's not clear which trajectory we are on.

Consumer involvement

Picking demand is extra hard as it's the sum of many moving parts.

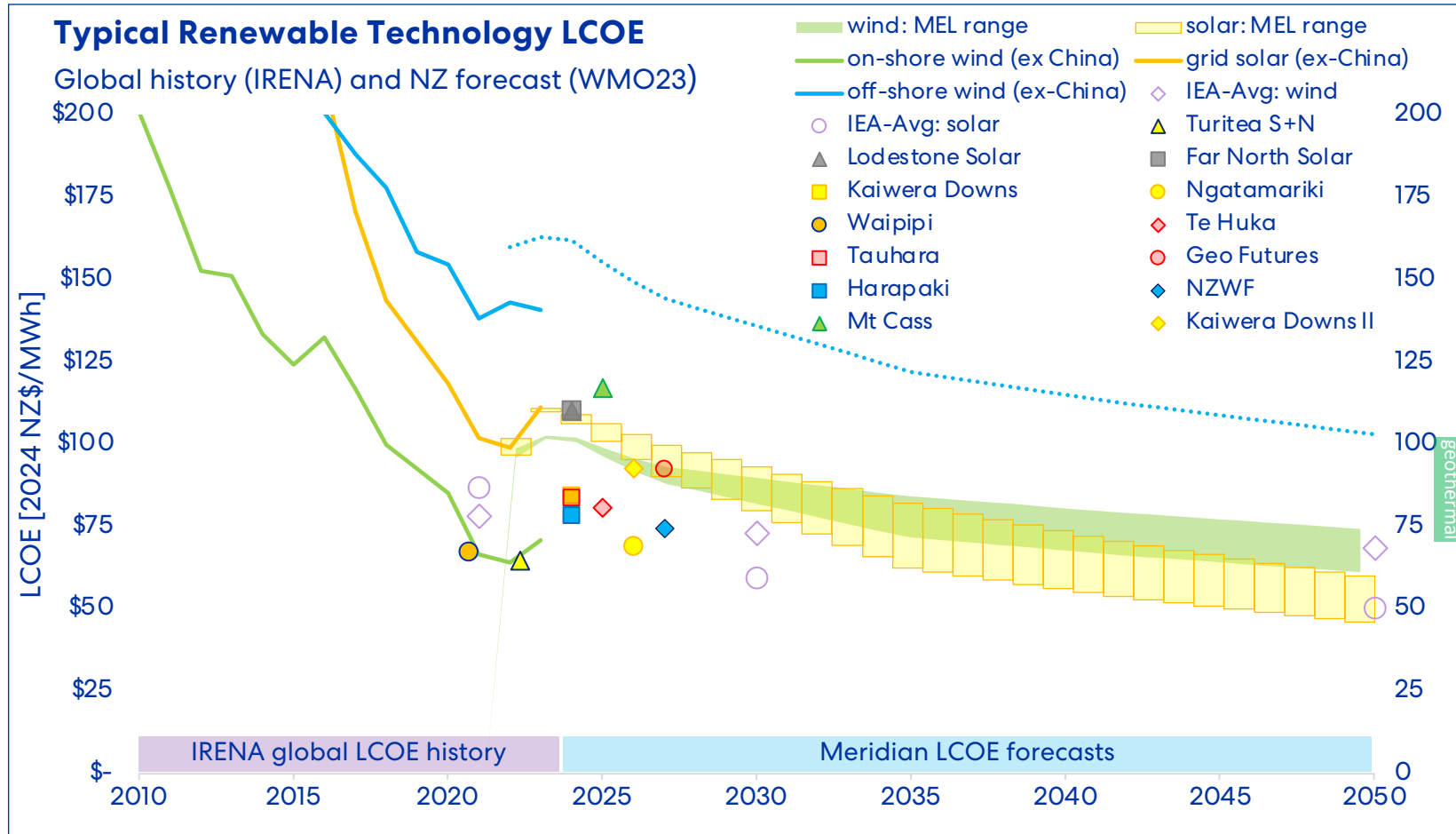


Source: Meridian

And quality and quantity matter.

Levelised cost of energy

We believe innovation will deliver technology cost improvements over time, though now starting from a higher base.

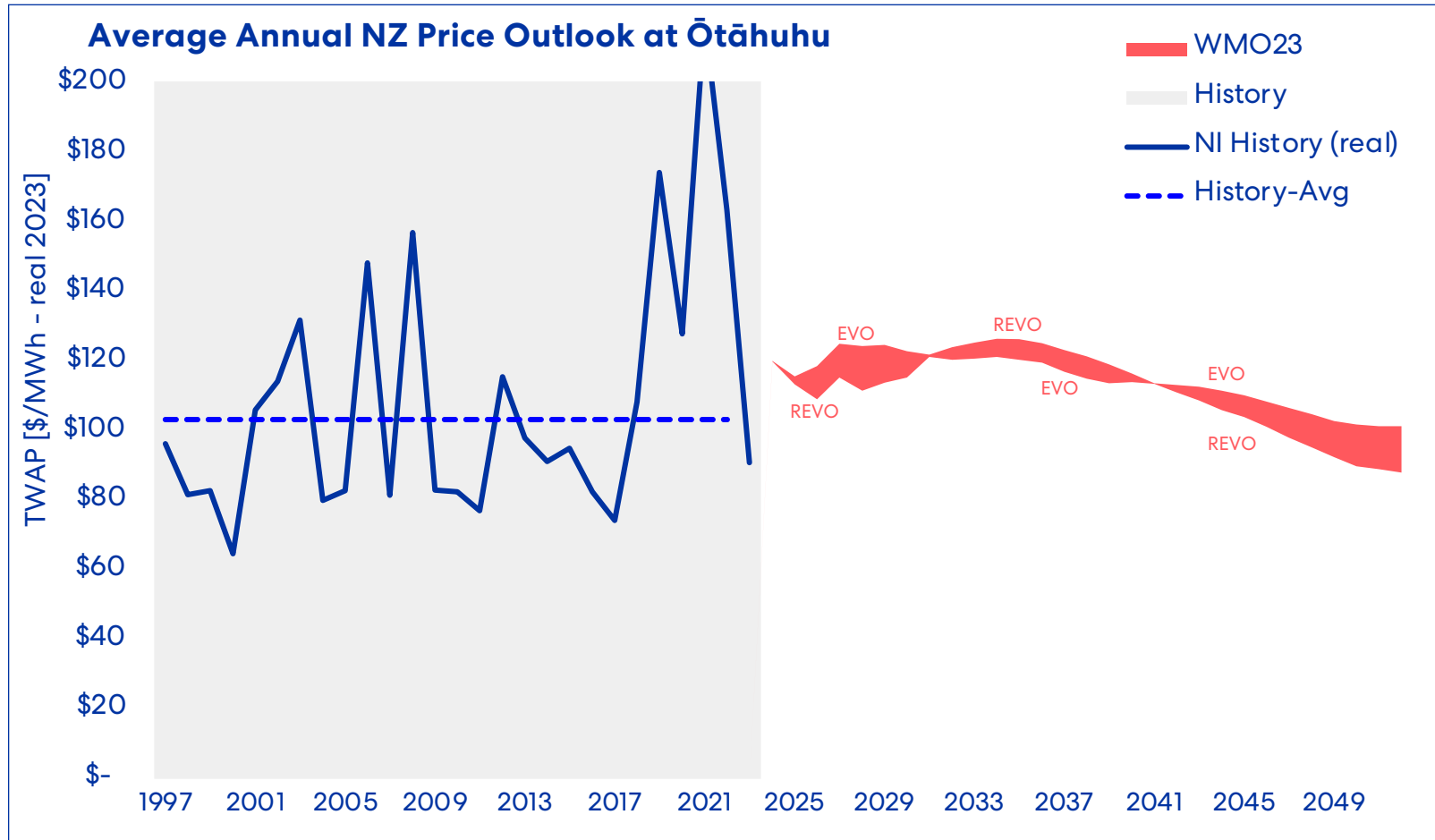


Source: Meridian, IRENA

However, costs of getting stuff done in New Zealand add some stickiness.

Wholesale price outlook

Putting it all together, you get Real prices ~\$115/MWh in the North Island for the next 15 years or so.

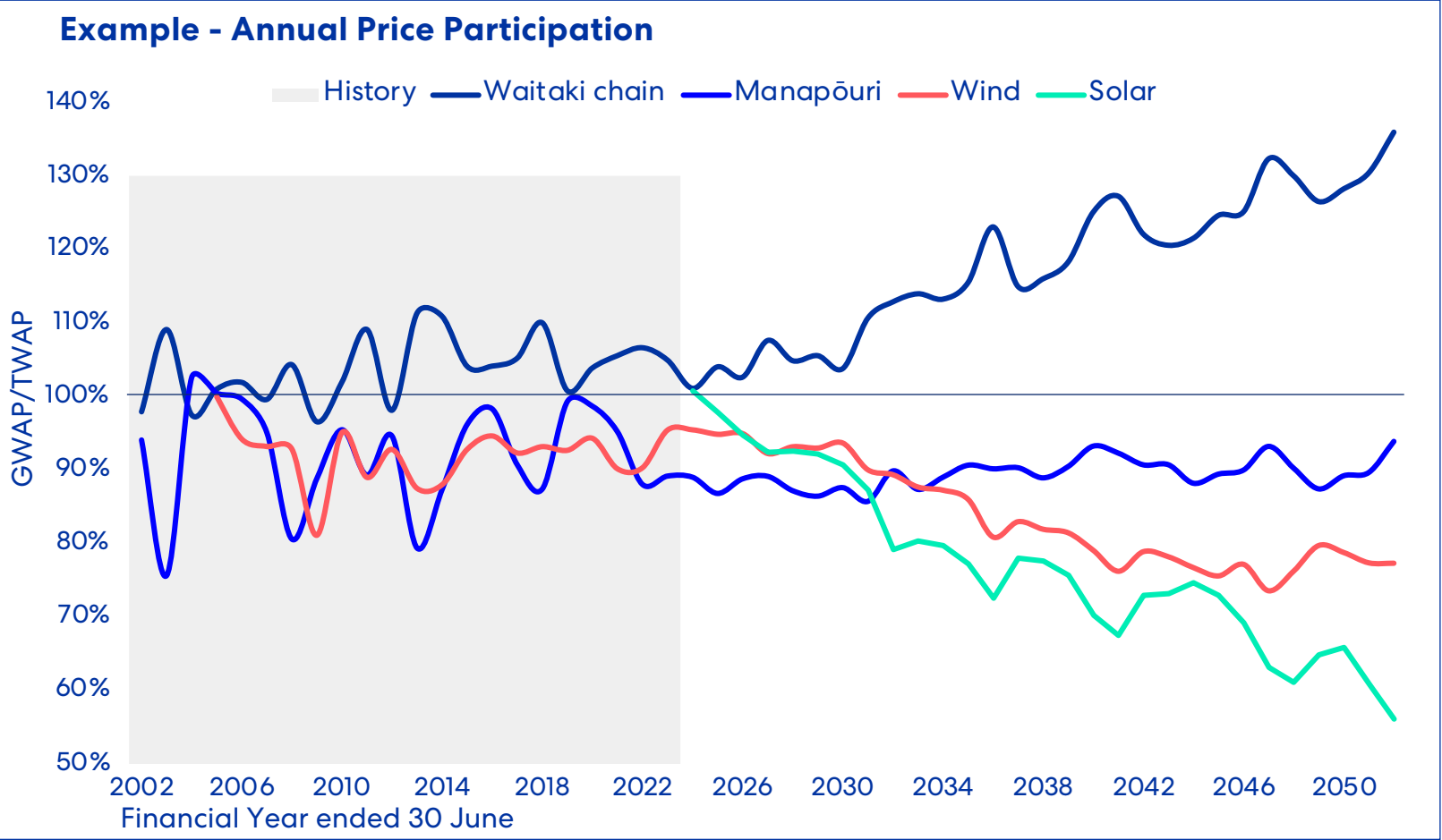


Source: Meridian

Before the combined effects of demand and supply-side innovation pulls prices down.

Price participation

Average prices hide a very dynamic system.

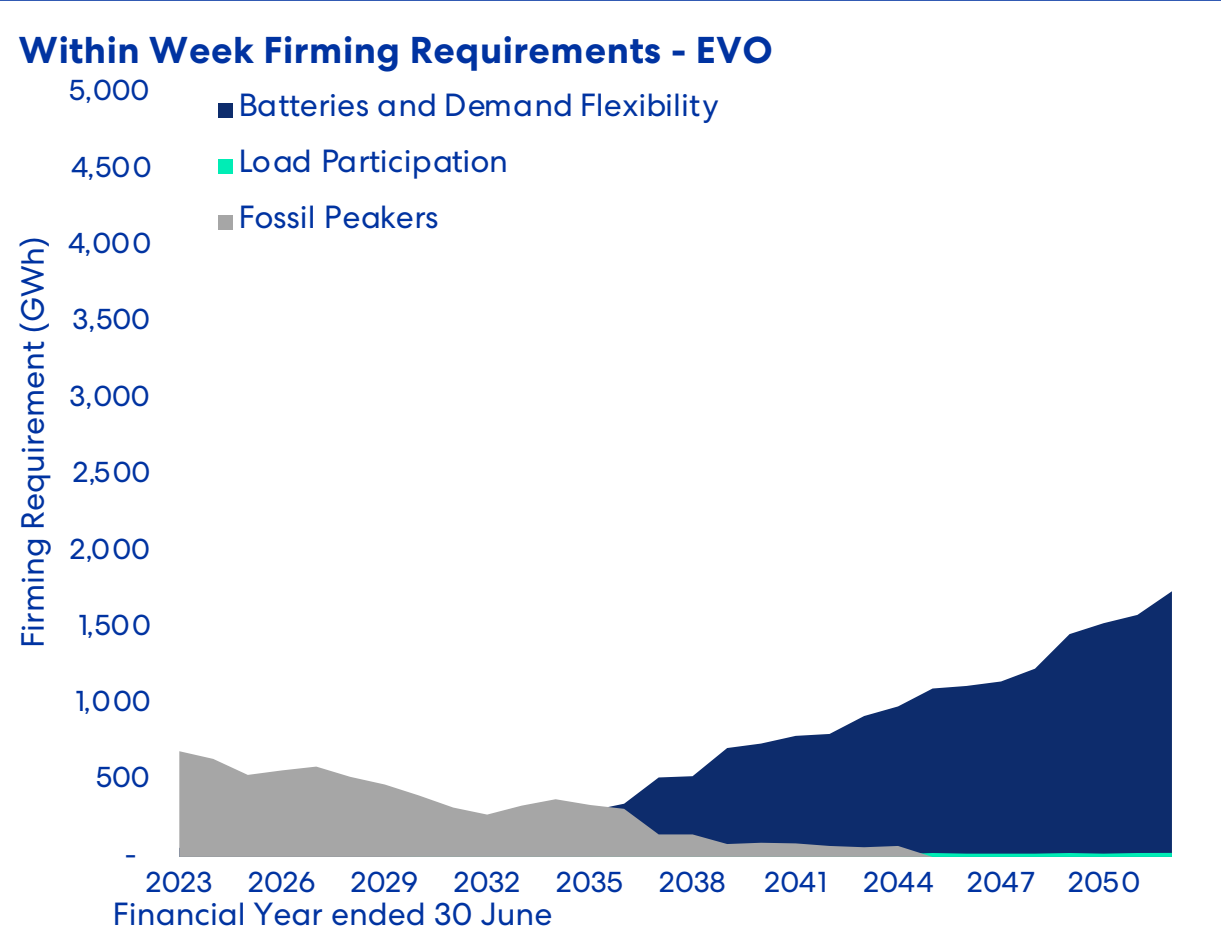


Source: Meridian

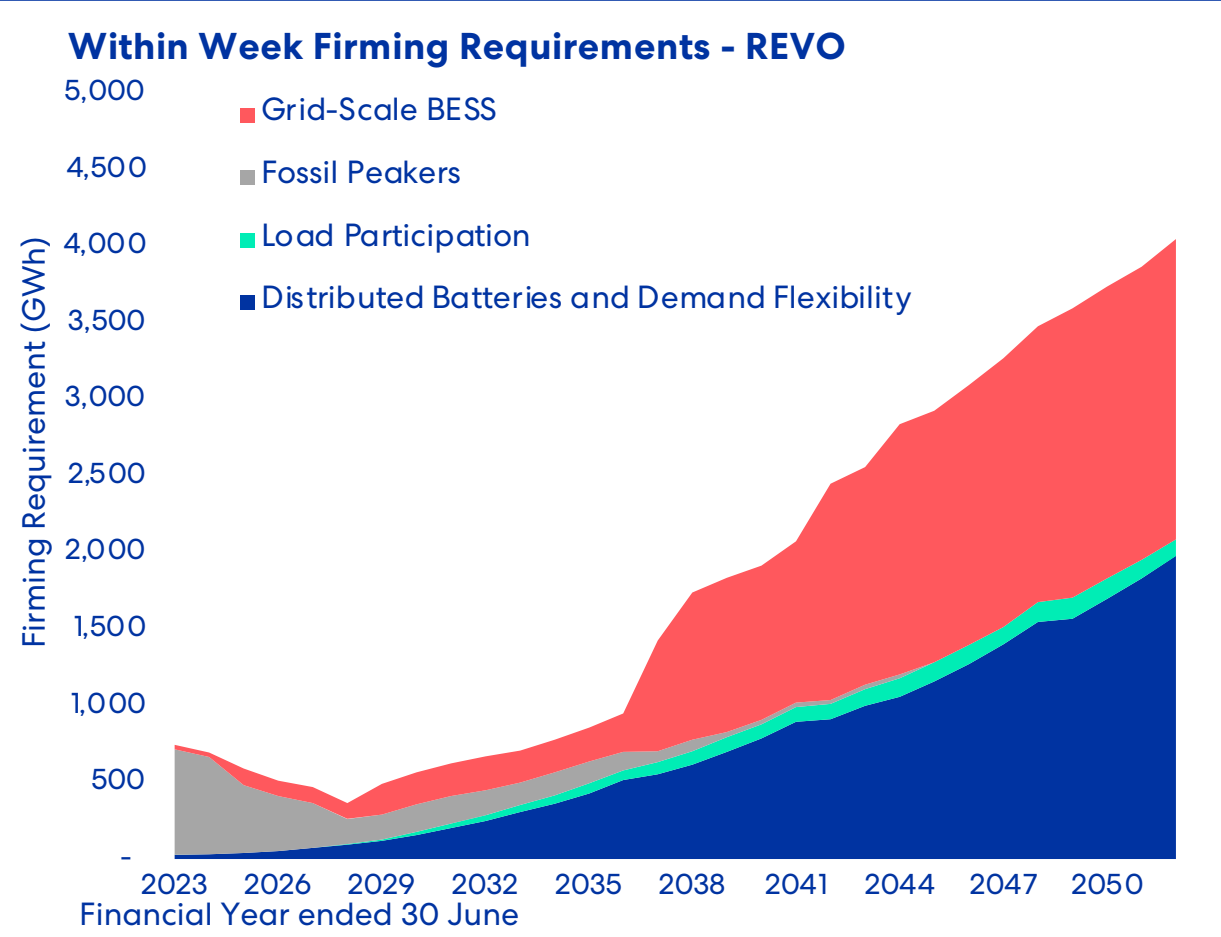
Prices will need to keep adapting to the changing physical market to drive the right investment.

Flexibility

Significant investment in flexibility required no matter how you look at it.



Source: Meridian



Source: Meridian

And thermal generation needed for some time to come.

Conclusions

- We have a mature analytical framework to explore, understand and ultimately answer strategic issues facing Meridian and the market within a volatile future environment.
- Our plausible scenarios indicate what electricity generation “could” look like – we acknowledge we won’t get it right.
- Overall, our view on long-run prices has lifted, primarily due to increased build costs of new renewables to sit around \$115/MWh (real, North Island) for the next 15 years or so.
- We back innovation to keep downward pressure on real prices in the long-run.
- Firming all the new renewables does not look trivial. We need lots of it across all time scales.
- Demand-side participation will play a critical role, starting now.
- The energy transition won’t be a straight-line – constrained gas is a current issue, but there will be others along the way – we’ll need to keep adapting.

Rebecca Knott – Head of Renewable Development

Development pipeline



Renewable development pipeline

5.0GW (12TWh) of development options
2.7GW secured, 2.3GW in advanced prospects



Wind
Total 1.7GW

Solar
Total 3.2GW

Battery storage
Total 0.1GW

Post 2033 options
Advanced prospects (900MW)

Secured options (900MW)
Advanced prospects (1,400MW)

Te Rere Hau
(170MW)

Mt Munro
(90MW)

Waiinu
(350MW)

Manawatū
(200MW)

Ruakākā
(120MW)

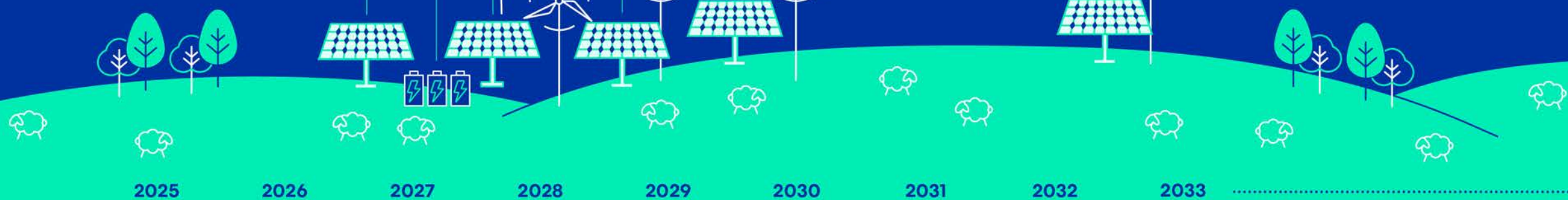
Waikato
(100MW)

Western Bays
stage 1
(250MW)

Swannanoa
(200MW)

Waiinu
stage 1 (200MW)

Manawatū
(100MW)



Changes from Feb 2024 Ruakākā solar →Q3 2026
Manawatū battery →Q1 2027
Waikato solar ←from secured options
Western Bays solar ←from secured options
Waiinu wind ←Q4 2029
Swannanoa solar +70MW
Waiinu solar +110MW

Waiinu Energy Park

- Near Waiinu Beach and Waitōtara, South Taranaki and 42km north-west of Whanganui.
- Wind generation (max) 350MW, 50 turbines; Solar array (max) 400MW, BESS.
- Maximum annual generation ~2,000GWh (enough to power ~285,000 average homes).
- Two 'blocks' of privately owned land 4,700ha and 600ha approximately.
- One of the largest economic renewable energy development opportunities in New Zealand.
- Project investment of approximately \$1.5B–\$1.7B.
- Estimated 450 to 550 direct full-time equivalent jobs at the peak of construction activities.
- Est. annual operational costs of \$26M–\$32M p.a.
- Up to 20 direct full-time equivalent jobs.

Location and indicative layout of the Waiinu Energy Park



Western Bays solar development

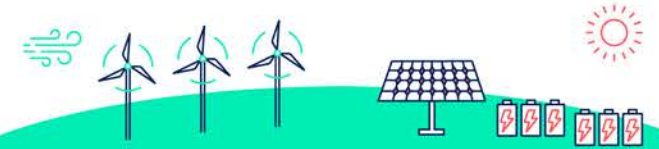
- Western side of Lake Taupō and east of Bunnythorpe to Whakamaru 220kV transmissions lines.
- Maximum capacity of 500MW; located within ~ 630ha of privately owned farmland.
- Maximum annual generation ~940GWh, (enough to power ~135,000 average homes).
- Project investment of approximately \$800M.
- On dairy farmland elevated 100 metres above the level of Lake Taupō.
- Land use change would achieve lower nutrient footprint than the existing (farm) land use (strict nutrient limits apply to the catchment).

Location and indicative layout of the Western Bays solar project



Prospecting

- **Hopper** of options, assess lots, narrow down to focus on "best".
- **Three horizons:**
 - **Horizon one to 2030:** our 7 in 7 target (to get 7 out of the hopper, a lot more go in).
 - **Horizon two to 2040:** next tier of projects, keeping a broad range of options including offshore wind.
 - **Horizon three to 2050.**
- **"Best":** range of factors, location, resource, grid, access, civil works, effects, consentability – we have our own in-house tools to assess project viability.
- **Green fields:** stamps and letters, emails, phone calls, door knocking.
- **Options for sale:** some good, some not as good as the holder thinks.
- **Partnering:** exploring where it makes sense and maybe required to meet country's demand; adds to complexity but also can be win/win.



Diversified pipeline

- Mix of technology: wind, solar, and battery.
- Scale “go big” and smaller “quick to get away”.
- Geographic spread (not all exposed to same resource risk, preferably close to load).
- Best sites to be developed first.
- More expensive/challenging sites to be in further horizons but need to secure now.

Secured options: Rights to develop land secured by agreement with landowners, pre-consenting or consenting work underway.

Advanced options: Interim agreements with landowners or in a process to secure development rights.

Iwi and community engagement

We are committed to engagement in both Fast Track or traditional RMA route.



Mt Munro case study

- Iwi first: and ongoing relationship, listen, build trust and show commitment (two iwi, four hapū).
- Then adjacent landowners: individually, usually at their homes.
- Then wider community: open days, pop-in shop, radio advertising, newsletters.
- Stats from pop-in: were largely pro or neutral to the project (9 pop-in days, 139 visitors; 113 positive, 14 neutral, 12 against).
- You won't win everyone, but you can inform.

RMA is the Resource Management Act

Mt Munro pop-in shop in Eketāhuna



Guy Waipara, General Manager Development

Consenting



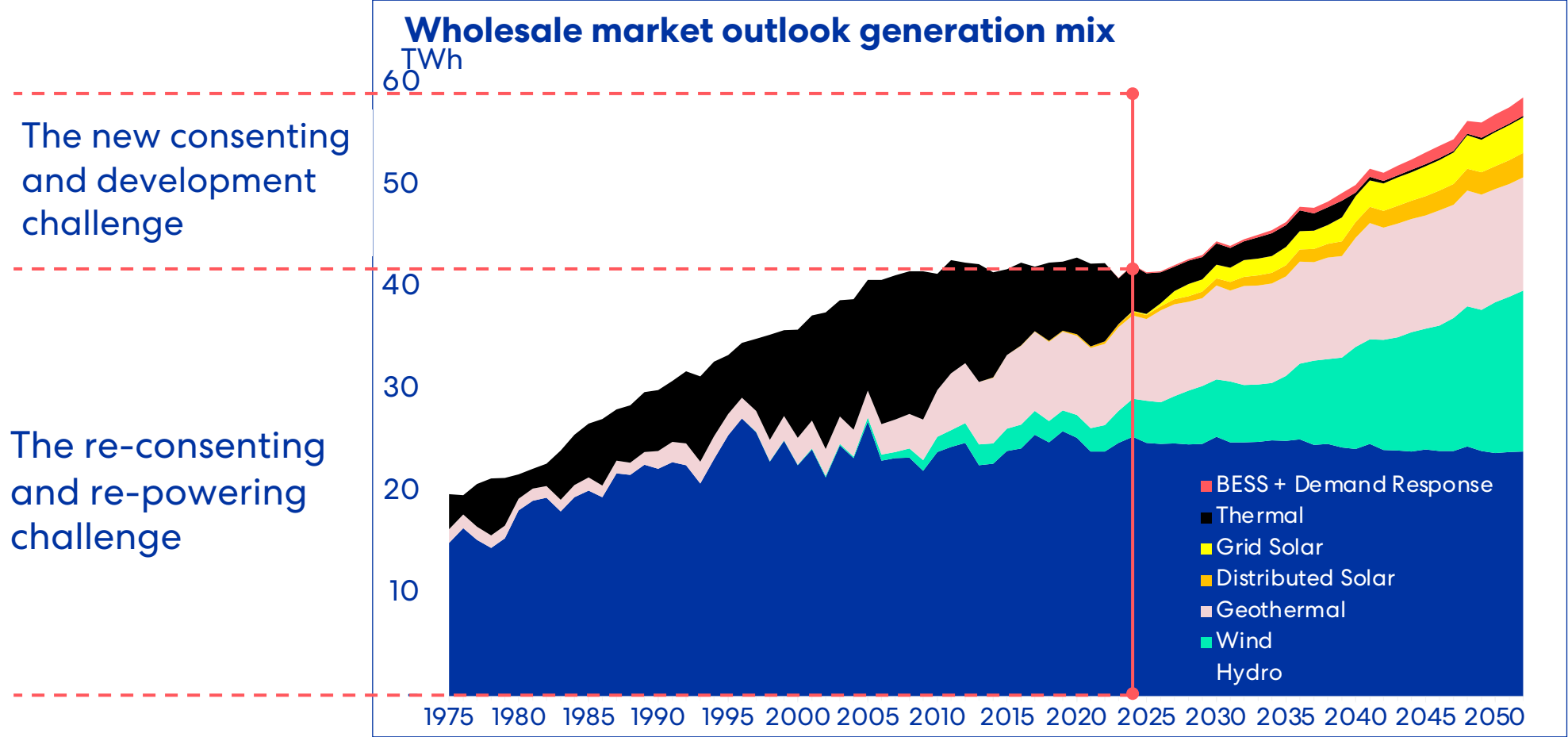
Past project consenting

- Widely recognised that Resource Management Act (RMA) is expensive and time consuming.
- Increasing delays and complexity are obvious.

Project	Turbines	Average homes	Council hearing days	Environment Court hearing days	Number of consent conditions	Lodged	Final Decision issued	
Te Apiti	55	30,000	1	N/A	20	19 June 2003	3 September 2003	77 days
White Hill	29	22,000	3	N/A	30	6 October 2004	21 December 2004	77 days
West Wind	62	73,000	17	18	114	1 July 2005	20 July 2007	750 days
North Bank Tunnel <i>(not built)</i>	Hydro	300,000	27	11	-	12 October 2006	23 November 2010	1,504 days
Hayes <i>(not built)</i>	176	263,000	19	32	90	12 July 2006	16 August 2010 (High Court decision)	1,497 days
Mill Creek	26	34,000	26	11	90	12 March 2008	16 February 2012	1,437 days
Central Wind <i>(not built)</i>	52	50,000	10	3	109	5 May 2008	14 June 2010	771 days
Hurunui <i>(not built)</i>	28	31,000	N/A	26	114	21 February 2011	4 November 2013	988 days
Ruakākā BESS	Battery storage	50,000 (2 hours)	N/A	N/A	43	18 July 2022	1 November 2022	107 days

Future consenting

- Achieving high levels of electrification requires fit for purpose approval pathways for both new development and re-consenting and repowering.



Source: Meridian

Current Meridian consenting

Consent pathway	Legislation	Process	Meridian project
Non-Notified Council decision	RMA	Either with or without a hearing. Right of objection only (no appeal) for an applicant of an adverse decision.	<ul style="list-style-type: none"> • Harapaki Wind Farm: Numerous consent variations. 2013–2022. • Ruakākā BESS: District and Regional Consents. Lodged June 2022, granted September and November 2022. • Swannanoa Solar: Proposing application lodgment H2 2024. • Manawatū BESS: Proposing application lodgment July 2024.
Limited Notified Council decision	RMA	Either with or without a hearing. An Environment Court Appeal by submitters or the applicant.	
Notified Council decision	RMA	Either with or without a hearing. An Environment Court Appeal by submitters or the applicant.	<ul style="list-style-type: none"> • Ruakākā Solar: Lodged October 2023. District Council Consent and Archeology Permit granted February 2024. Regional Council consent notified March 2024, Council hearing 2024. • Mt Munro Wind Farm: Lodged March 2023, notified November 2023. Environment Court hearing September 2024. Decision end of 2024 or early 2025.
Direct Referral to the Environment Court	RMA		
Call-in to the Environmental Protection Agency	RMA	By the Minister for the Environment and referred for a hearing.	
COVID Fast Track	COVID Recovery Act	No longer available for new consent applications. Some consents still being processed.	<ul style="list-style-type: none"> • Te Rere Hau (NZ Windfarms) core repowering site and Aokautere extension <ul style="list-style-type: none"> • Core repowering site applied December 2021, decision May 2023. • Aokautere extension site applied March 2023, hearing panel appointed in April 2024, decision circa June–Aug 2024.
Existing Fast Track	RMA	Formerly the short lived NBEA* Fast Track that was added to the RMA in late 2023.	
Proposed new Fast Track	Fast Track Approvals Bill	Intended for nationally and regionally significant projects. Draft legislation is currently before Select Committee.	<ul style="list-style-type: none"> • Waiinu Energy Park, South Taranaki. • Western Bays Solar, Taupō.

* Natural and Build Environment Act 2023

Fast Track Approvals Bill (FTAB)

- Part of a programme of RMA Reforms that the Government proposes to implement.
- Submissions closed 19 April and the Select Committee is scheduled to report back to Parliament by 7 September.
- The date by which the legislation might be passed and operative, will depend on legislative priorities in 2024.
- In parallel, the Government established a Fast Track Advisory Group to review projects for incorporation into the FTAB.
- Aspects of the FTAB are contentious, most notably the role of Ministerial decision making and the schedules of projects not being public information.



Lake Ruataniwha, near Twizel, part of Meridian's Waitaki hydro scheme

Meridian and the FTAB

- Meridian has experienced the systemic problems the FTAB is seeking to address.
- Meridian has nominated projects for the FTAB that have significant scale, good economics and that are not already in a process for approval.
- Meridian has proposed two projects to be scheduled:
 - Waiinu Energy Park, South Taranaki,
 - Western Bays Solar, Western Taupō.
- Meridian and other sector participants are seeking changes that would improve the durability of the processes and accommodate consenting and repowering.



Meridian's Manapōuri Power Station in the Fiordland National Park

Meridian's Waitaki reconsenting

RMA processes are likely to deliver a better outcome for Waitaki reconsenting than the FTAB.

JUL 2023

- Reconsent application lodged under the RMA

OCT 2023

- Environment Canterbury (ECan) accept application
- ECan request for information; 130 questions

APR 2024

- Meridian responds to ECan request for information

Mid-2024

- ECan likely notify the application for public submissions

Mid-2025

- Environment Court hearing if ECan agrees to direct referral



1991

Consents granted for 35 years

APR 2025

Existing 35-year consents expire

????

New consents granted

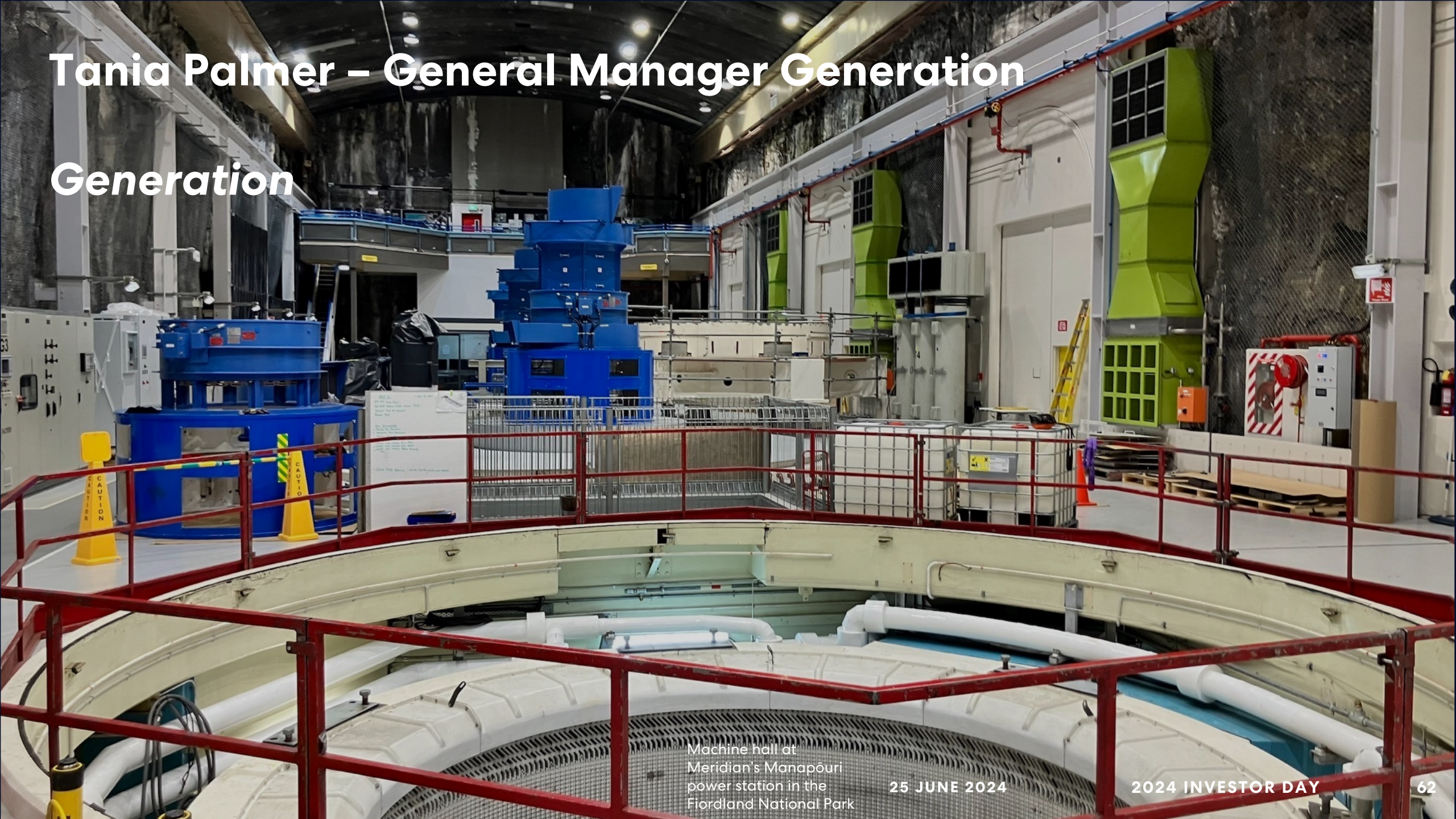
Meridian requested the application be publicly notified

Application of acceptance means Meridian can continue operating the Waitaki Scheme beyond the expiry of the current consents

Meridian has requested that once notification has closed, the decision-making step is directly referred to the Environment Court

Tania Palmer – General Manager Generation

Generation



Machine hall at
Meridian's Manapouri
power station in the
Fiordland National Park

25 JUNE 2024

2024 INVESTOR DAY

62

Generation team strategy

Guided by Meridian's all-encompassing focus on climate action, Generation's strategy is about growth, flex and excellent asset productivity – delivering the energy and capacity that Aotearoa needs.

2000–2020

- Modest demand growth (~1%)
- Capacity had little value

2021–2050

- Growth in electricity demand (~70% by 2050) and new (intermittent) renewables build
- Capacity has high value

Capacity is MW generation available over a short time-period (e.g. half hour) and is critical on winter evening peaks and other peak demand periods.

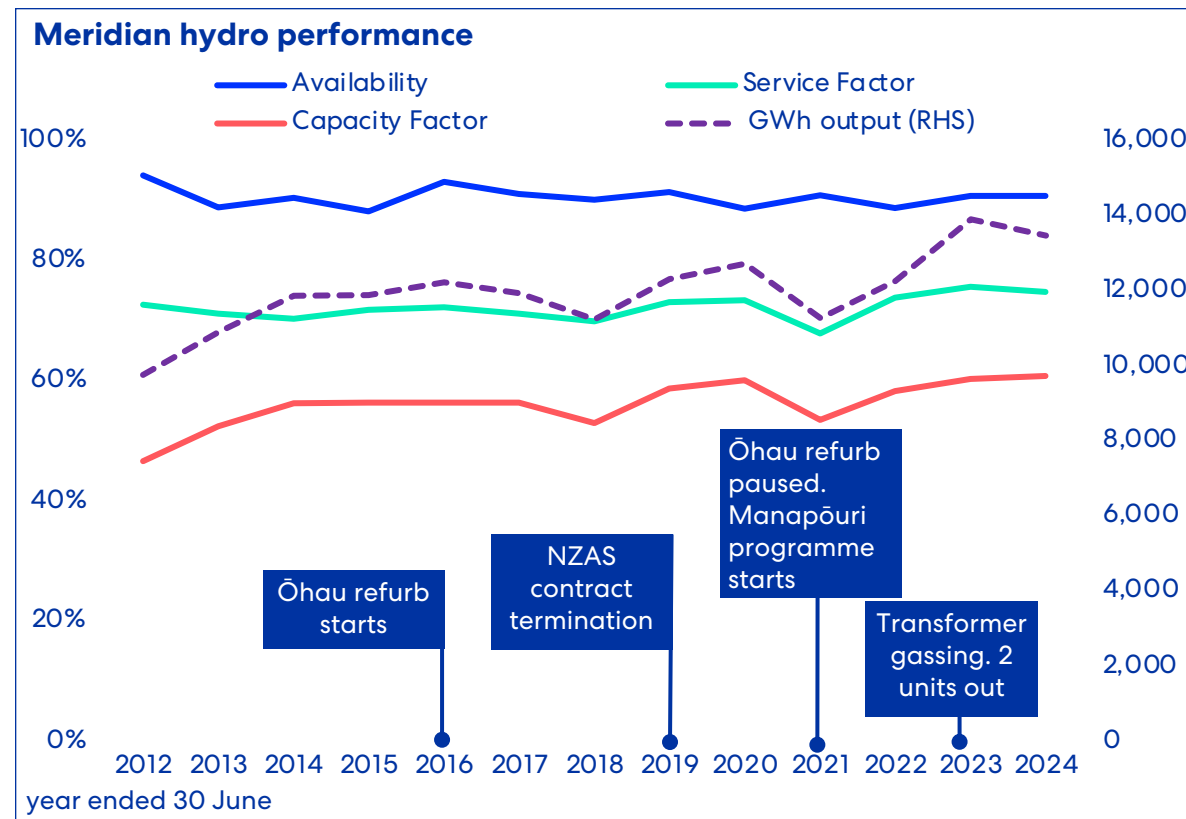


Meridian's asset management focus changes to include investing in the capability needed to enable energy transition and meeting the needs of future markets.

A foundation for growth and flex

¹% of time hydro is online
²% of time we generate at full load

- Meridian’s hydro portfolio and our operational excellence allows us to manage complexity well and has set foundation for growth and flex.
- Largest hydro fleet in Aotearoa: 2,479MW, seven power stations.
- Our Strategic Asset Management Plan enables us to pivot (and we’re really good at it).
 - We transitioned from Ōhau refurbishment to Manapōuri automation upgrades in 2021.
 - Things became complex with transformer failures in 2022/23.
- Low service factor¹ combined with high availability and capacity factor² means headroom.
 - Meridian’s capacity factor average is 56%.
 - Allows us to manage unplanned events like extended Manapōuri transformer outages.

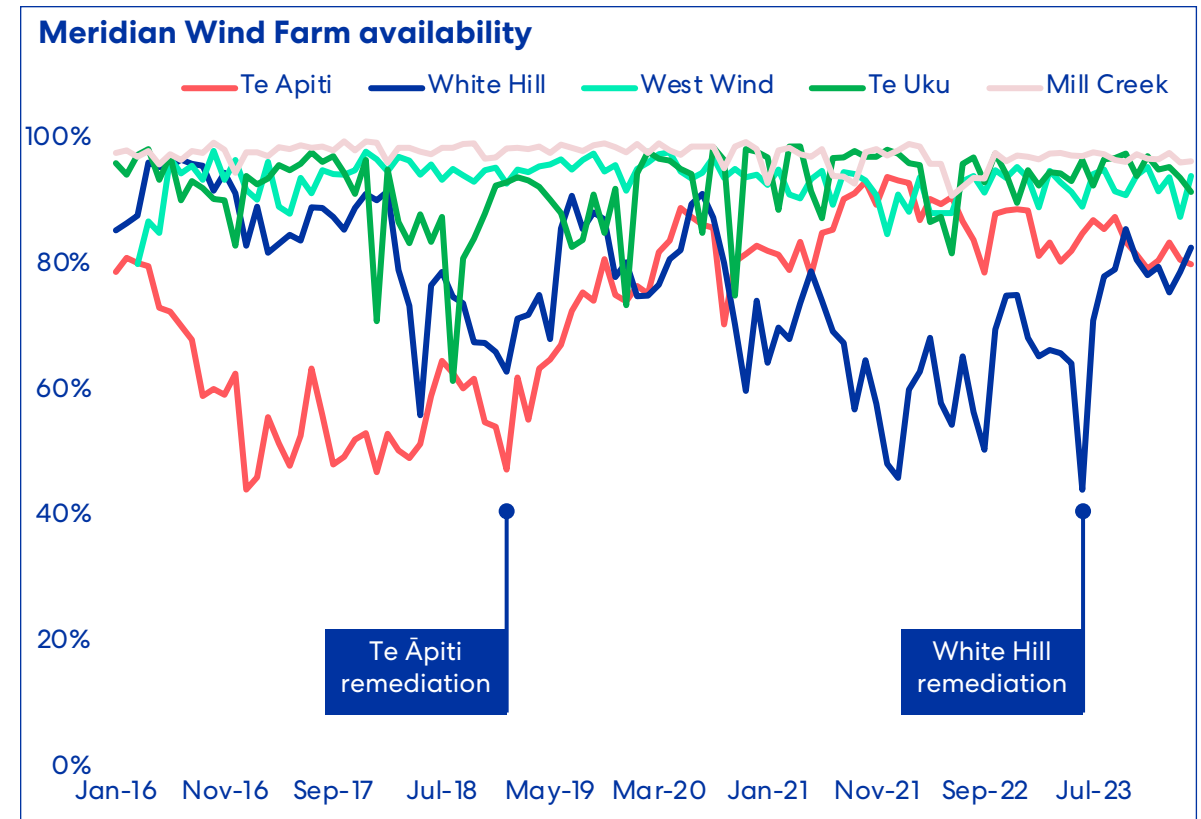


- 3 other levers to pull:
 - Use other catchments & wind (days-weeks)
 - Reduce contract position (weeks-months)
 - Call swaption (2 months+).

Wind Farm performance

¹Original equipment manufacturers

- Five operational wind farms, soon to be six.
- Different maintenance models (full outsource; insource; hybrid) for each wind farm has meant we are robust against failure of OEMs¹.
- Demand for trained turbine technicians is very high in NZ and filling vacancies is challenging with an increasing build pipeline. Meridian having the capability to train new technicians and retention is important.
- The ability to source major components is vital to maintaining the availability of existing wind assets. Current stock is about \$19M covering 12-24 months consumption due to long lead times from Europe.
- Our wind farms have high-capacity factors due to good wind resource. These average around 40%. European offshore average is 36% and onshore 24%. Australian average is 35%.
- High wind speeds also mean turbines suffer more stress with higher maintenance costs in later years.



- We own some of New Zealand's oldest wind farms and have invested in rectifying manufacturing defects.
- These remediations have returned wind farms like Te Āpiti and White Hill to high availability.

Meridian's Generation strategy evolves to focus on growth and maintenance innovation

Our why

With nature's power, iconic assets and our smarts we deliver flexible renewable energy for a better Aotearoa.

Our goal

500MW in 5

Clear goal for the team

From a baseline of 1 July 2023, deliver 500MW

- 200MW = return existing capacity
- 300MW = new capacity (growth) and flex (reducing outage days)

Delivered through our strategic pillars



A new operating model

- Our 2022 transformation to a new operating model has enabled growth and flexibility with some key accomplishments in last 18 months.

Our priorities

Grow renewable generation

Our key initiatives

Grow our dispatchable MW capacity



Project	Installed MW	Operating MW	Growth (new MW)
Manapōuri	875	896 ¹	+21MW
Benmore	540	570	+30MW
Ōhau A	264	254	
Aviemore	220	220	
Ōhau B	212	212	+12MW to +16MW ²
Ōhau C	212	212	
Waitaki	105	105	

Additional 15MW **growth in output** of existing assets by **removing control system constraints**.

YTD spot revenue uplift of \$7M from Manapōuri and Benmore. New MW uplift across hydro in FY24 has cost us less than \$1M.

Deliver operational excellence

Build operational flex and agility while sustaining excellent asset productivity



15 to 128 additional MWs to supply circa 200 additional peak demand periods annually through operational flexibility initiatives.

- Flexible outage scheduling
- Off peak outage scheduling
- Hydro outages scheduled during high wind.

58 fewer annual routine outage days through maintenance innovation.

- Maintenance review and rationalisation
- Realising benefit from automation upgrades.

¹Overall station output remains the same at 800MW due to discharge consent limitations

²Dependent on Transpower dispensation approval



Neal Barclay, Chief Executive

Closing

Meridian's strategy map



Our strategy map

Te kaupapa
Our purpose

Clean energy for a fairer and healthier world

Te rautaki
Our strategy

An all-encompassing focus on climate action

Te kaupapa matua
Our priorities

Grow renewable generation

To speed our path to a resilient, net zero future

Deliver cleaner, cheaper energy

Through innovation that unlocks value for customers

Deliver operational excellence

So everything we do aligns to deliver on our goals

Grow capability and culture

Because how we do the mahi is what will make the real difference

Te arotahinga
Our focus

Te whaipāinga
Our values

Be a good human

Be gutsy

Be in the waka



Te mahi
Our key initiatives

- Accelerate Aotearoa New Zealand's decarbonisation by delivering scale energy projects at pace:
 - Build renewable generation options.
 - Deliver on our 7 in 7.
 - Secure long-term access to water.
 - Accelerate electrification of transport and process heat.
- Grow system flexibility:
 - Grow our dispatchable MW capacity.
 - Bring dispatchable customer capacity to market.
 - Develop Southern Green Hydrogen.

- Develop an innovation culture that delivers digital, and data driven customer experiences.
- Expansion of the energy product set that unlocks the value of transport electrification, process heat and demand flex.
- Continued investment in energy hardship and community programmes that promotes equitable access to the benefits of the energy transition.
- Policy advocacy that promotes climate action and supports New Zealanders through the energy transition.

- Build operational flex and agility while sustaining excellent asset productivity.
- Modern data and digital systems to promote collaboration, operational efficiency, innovation and data-driven decisions.

- Grow a diverse and inclusive, skilled workforce that reflects the country we live in.
- Nurture leadership capability to support the cultural and digital maturity of a future Meridian.
- Our developing understanding of the Māori world view helps build long term relationships with tangata whenua and better outcomes for all.
- Safety leadership that grows in maturity as we build into the energy transition.
- Sustainability culture and leadership that benefits people and planet, inspires climate action, and attracts investors.

Our targets

Te kaupapa matua
Our priorities

Te mahi
Our key initiative

Te whainga
Our targets

Horizon 1
FY25

Horizon 2
FY26

FY27–29

to FY30

Horizon 3
to FY50

	Horizon 1 FY25	Horizon 2 FY26	FY27–29	to FY30	Horizon 3 to FY50		
Grow renewable generation	Delivering scale energy projects at pace: <ul style="list-style-type: none"> Build renewable generation options. Deliver on our 7 in 7. Secure long-term access to water. 	<ul style="list-style-type: none"> Harapaki and Ruakākā BESS delivered Gain 3 consents Lodge 3 consents on further 7 in 7 options Achieve FID on two renewable projects Commence construction of Ruakākā solar 	<ul style="list-style-type: none"> Ruakākā Solar operational Commence construction for Te Rere Hau Gain 2 and lodge 2 more consents Achieve FID on one project Waitaki consent granted 	<ul style="list-style-type: none"> Te Rere Hau operational (FY28) Gain 2 more consents Lodge 2 more consents Achieve FID on one project 	<ul style="list-style-type: none"> 2,000GWh p.a. of new renewable generation and 200MW of BESS capacity delivered by FY31 Remaining three of the 7 in 7 projects delivered Evaluate offshore wind opportunities 	<ul style="list-style-type: none"> Reset new targets for remaining projects from 20 in 28 baseline Waiau consent granted 	
	Accelerate electrification of transport and process heat	<ul style="list-style-type: none"> Install 75 fast chargers by the end of FY25 Convert 200GWh of MOU process heat to contracts 			<ul style="list-style-type: none"> Additional 200GWh of process heat under contract in 2027 	<ul style="list-style-type: none"> NZ's largest and most loved EV charging network by FY2028 1,000GWh of process heat under contract 	
	Grow system flexibility	<ul style="list-style-type: none"> 173MW from new transformers at Manapōuri and West Wind Hydro generation unit up-ratings and constraint removals totalling 50–60MW Sign 10MW of additional demand flexibility 5,000 residential customers on DR product SGH: secure preferred site 	<ul style="list-style-type: none"> Lift Manapōuri peaking capacity Quantify remaining generation asset MW uplifts at Waitaki and Ōhau sites 20,000 residential customers on demand flex product 	<ul style="list-style-type: none"> 70MW of additional peaking capacity through hydro maintenance transformation 	<ul style="list-style-type: none"> +500MW peaking capacity from existing assets by end of FY28 from a 1 July 2023 baseline (200MW returned capacity + 300MW new capacity) SGH FID and construction commence 	<ul style="list-style-type: none"> Major unit replacements of end of life hydro assets Manage end of life of all existing wind farms excluding Harapaki SGH commercial operation 	
Deliver cleaner, cheaper energy	Develop digital capability and innovation to achieve scale and grow customer relationships	<ul style="list-style-type: none"> Customer numbers grow to 395k 	<ul style="list-style-type: none"> Customer numbers grow to 430k 	<ul style="list-style-type: none"> Customer numbers grow to 465k 	<ul style="list-style-type: none"> Customer numbers grow to 500k 		
	Expansion of the energy product set that unlocks the value of transport electrification, process heat and demand flex						
	Continued investment in energy hardship/community programmes and a focus on innovation to promote equitable access to the energy transition	<ul style="list-style-type: none"> Support 1k customers in energy hardship Increase community decarb distributions to \$1.5m in FY25 		<ul style="list-style-type: none"> Support 5k customers in Hardship by June 2028 	<ul style="list-style-type: none"> Reset new targets for FY30+ 		
	Policy advocacy that promotes climate action and supports New Zealanders through the energy transition	<ul style="list-style-type: none"> ETS seen as primary tool to drive energy transition Favourable consenting reforms Navigate near-term Winter capacity constraints 	<ul style="list-style-type: none"> Promote evidence-based interventions/decisions Stable and sensible gas policy and energy market reform through the transition 		<ul style="list-style-type: none"> Increasing consensus on roles of Government and sector in the Energy Transition 		

Our targets *continued*

Te kaupapa matua
Our priorities

Te mahi
Our key initiative

Te whaingā
Our targets

Horizon 1
FY25

Horizon 2
FY26

FY27-29

to FY30

Horizon 3
to FY50

Deliver operational excellence	Build operational flex and agility while sustaining excellent asset productivity	<ul style="list-style-type: none"> Improved AMP that supports maximising availability of existing assets delivered Reduce annual routine outage days by >100 days Implement advanced analytics trial 	<ul style="list-style-type: none"> Identify further enhancement opportunities as part of revised AMP Enhanced AMP supports improved financials 	<ul style="list-style-type: none"> Advanced maintenance practices applied across entire asset portfolio Revised AMP results in further improved cost certainty 		
	Modern data and digital systems to promote collaboration, operational efficiency, innovation and data-driven decisions	<ul style="list-style-type: none"> Finance Transformation live Portfolio tool capacity improvements implemented Identity and Access management solution delivered Market Maker enhancements delivered Enterprise wide data lake delivered and scaling in progress 	<ul style="list-style-type: none"> Fully scaled data lake, with high adoption rate Roll-out second technology supported business improvement within Wholesale 	<ul style="list-style-type: none"> Scope and roll-out further technology supported business improvements across Wholesale Portfolio, Trading and Operations Roll-out solution for Sales and Service 	<ul style="list-style-type: none"> Automation is pervasive throughout Meridian 	<ul style="list-style-type: none"> Full automation of the finance function Full automation of Wholesale functions
Grow capability and culture	Grow a diverse and inclusive, skilled workforce that reflects the country we live in	<ul style="list-style-type: none"> 25% women in senior roles Reduce Māori and Pacifica representation gap by 10% on the baseline each year Maintain/achieve engagement in top 25% of NZ orgs Deliver new Wellbeing Strategy 	<ul style="list-style-type: none"> 30% women in senior roles 		<ul style="list-style-type: none"> Maintain/achieve engagement in top 25% of NZ orgs 	<ul style="list-style-type: none"> Māori and Pacifica representation gap closed
	Safety leadership that grows in maturity as we build into the energy transition	<ul style="list-style-type: none"> Growing the maturity of the Safety Culture through improvement in the lead indicators from FY24, while managing lag indicators 	<ul style="list-style-type: none"> Improve the safety maturity model towards an advanced safety culture while managing lag indicators 			<ul style="list-style-type: none"> Independent confirmation of an advanced safety culture held as world class
	Sustainability culture and leadership that benefits people and planet, inspires climate action, and attracts investors	<ul style="list-style-type: none"> ESG accountability formalised in Business Units Half by 30 FY24 initiatives delivered Upper quartile Asia Pacific ESG performance (DJSI index measure) 	<ul style="list-style-type: none"> World class ESG sector performance (DJSI measure) Half by 30 FY26 initiatives delivered 	<ul style="list-style-type: none"> Maintain world class ESG performance (DJSI measure) Half by 30 Horizon 1 emission target met (per Climate Action Plan) 	<ul style="list-style-type: none"> Half by 30 target met 2030 	<ul style="list-style-type: none"> Meridian net zero target delivered

Meridian Retail sources, references and disclaimers

Page 32: Content supplied during McKinsey review, 2023

Page 33: Content supplied during McKinsey review, 2023

Page 34: Content supplied during McKinsey review, 2023

1. All numbers are indicative. For solar, battery, EVs, home electrification, process heat: each value pool is split by market segment – mass market and C&I. Calculation of segment values pools estimated by total value pool (\$) multiplied by Meridian share (30%). Total value pool (\$) is the product of value chain margin components (\$/MW) x annual installed capacity (MW) + cumulative electricity consumption (\$). Margin of value chain components include CAPEX, installation, financing. Cumulative electricity consumption = sum of installed capacity since 2023 x average margin on electricity for customer segment. Assumes average retail margin for residential and C&I customers in 2023 = assumes average retail margin for residential and C&I customers in 2023. For demand response: value pool is split by mass market and C&I. Calculation of segment values pools estimated by total value pool (\$) multiplied by Meridian share (30%). For mass market, total value pool (\$) is the product of cumulative energy from battery, EV, heat pumps x wholesale arbitrage price. For C&I, total value pool (\$) is the product of cumulative energy from battery, process heat x wholesale arbitrage price;
2. Key drivers of value pool estimate include 2-hr flexibility for C&I segment and Meridian share capture of 30%;
3. Key drivers of value pool estimate include hours of operation (5280 hrs), linear electrification of process heat and Meridian share capture of 30%.



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The information contained in this presentation should be considered in conjunction with the company's condensed financial statements for the six months ended 31 December 2023, available at:

www.meridianenergy.co.nz/about-us/investors

All currency amounts are in New Zealand dollars unless stated otherwise.