

Climate Action Plan

Our purpose

Meridian's purpose of **Clean energy for a fairer and healthier world** is at the centre of our journey to a resilient, net zero future.

Our priorities

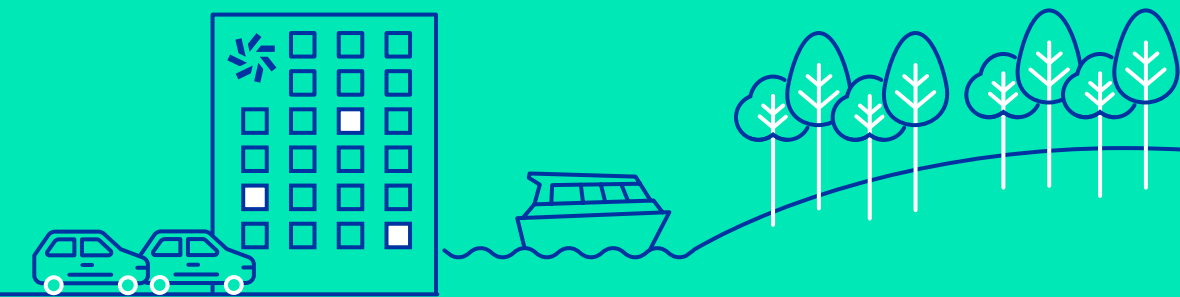
Renewable generation



Customer decarbonisation



Manage our emissions and build capability



Our key initiatives

Development pipeline

Creating a pipeline of resilient grid-scale projects for construction. Our '7 in 7' first horizon goal aims for seven projects in seven years to 2030.

Build new generation

Beginning with Harapaki wind farm, we're building new assets to increase the supply from our existing 100% renewable energy asset base.

Grow system flexibility – grid scale

Enhancing the capability of our assets - 500MW by the end of FY28 - and increasing overall system flexibility via demand response.

Grow system flexibility – customer

Helping to create a more flexible energy system that delivers cheaper, cleaner energy for our customers.

Electrify transport and heat

Helping businesses replace fossil fuel boilers, growing the electric vehicle (EV) charging network and making it easier for homes and businesses to drive electric.

Increase access to energy and community good

Investing in our programmes to reduce energy hardship and supporting communities to decarbonise.

Construction emissions

Staying focused on minimising emissions and waste as we grow.

Half by 30

Halving total Scope 1, 2 and 3 operational emissions by FY30 from a FY21 baseline. Work to our new Net Zero by 2050 target.

Forever Forests

Growing a permanent, and over time 100%, native forest sink for our emissions.

Build capability

Growing capability to reduce emissions and adapt to climate change impacts across Meridian and our suppliers.

Resilience We are improving our climate resilience across the key initiatives related to risk assessment and adaptation planning for our sites, and our supply chain.

Our purpose statement is aspirational in nature and is not a formal target or summary of Meridian's current performance.



Meridian.

AUGUST 2024

Meridian's purpose of clean energy for a fairer and healthier world is at the centre of everything we do.

Meridian will play its part to help Aotearoa transition to a low-emissions, climate-resilient future and deliver a fair, equitable and inclusive transition.

About this Climate Action Plan

The Climate Action Plan is about what we're doing to build our resilience to the impacts of climate change and to transition to a net zero world. The plan is updated each year. This year we introduced a fresh articulation of our company strategy centred on our all-encompassing focus on climate action, and set our key initiatives and targets.

We're focused on what we can do beyond our 2030 targets, which is why we've also introduced a longer-term outlook to 2050, so we can do our part to contribute to net zero emissions by 2050.

We recognise the significant role the electricity sector can play, not only in further increasing its share of renewable generation but also in using that renewable generation to enable large-scale decarbonisation in other sectors such as transport.

This year's Climate Action Plan includes Meridian's Strategy Map initiatives with an explicit link to emissions reduction and adaptation. It also notes the relevant risks and opportunities associated with our climate-related disclosure. Meridian's climate-related disclosure outlines the actions we are taking to manage those risks and opportunities and our progress so far. The way we integrate climate action with our strategic planning and decision making will continue to evolve as we grow our resilience and mature our approach.

Further information is available in **Our Strategy Map** and **Climate-related Disclosure FY24**.



Our priority

Renewable generation

Our team is focused on getting the most out of our existing 100% renewable energy assets, and accelerating the delivery of new renewable generation options. We recognise that fully electrifying the Aotearoa New Zealand economy will take a collective effort and long-term partnerships. And from an economic perspective, we acknowledge that the long-term target of Net Zero emissions by 2050 will require around \$30 billion of investment in new renewable generation from the sector and around \$10 billion from Meridian alone.

Development pipeline

Our strategy is to complete the equivalent of 20 wind farms the size of our newest Harapaki wind farm in Hawke's Bay by 2050.

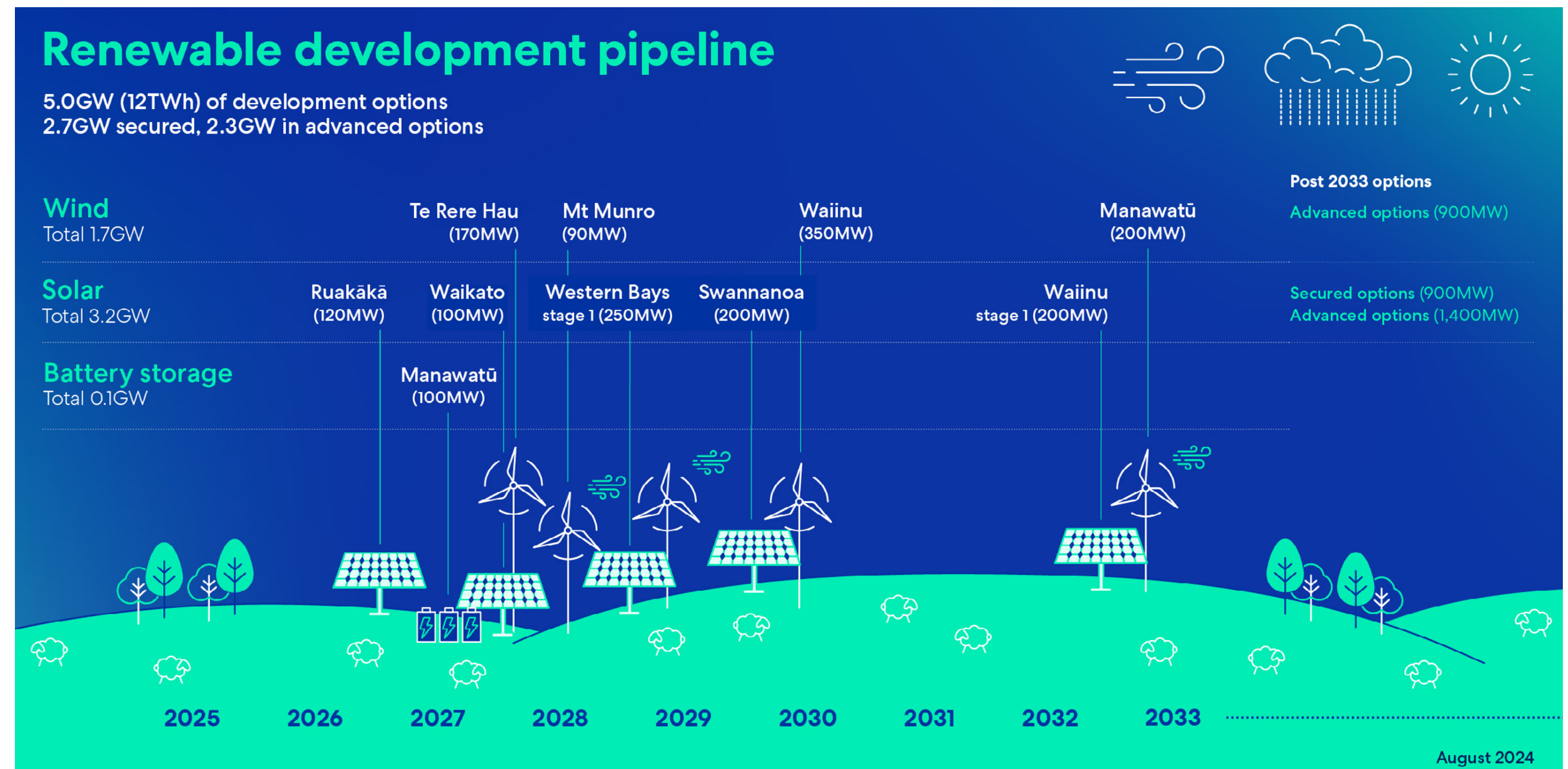
Our pipeline amounts to 5GW (12TWh) of development options. Demand forecasts may see a requirement for up to an additional 30TWh of new generation to come online by 2050. Meridian's pipeline of existing development options equates to approximately a third of this increase.

Build new generation

We're currently on target to deliver our ambitious goal of 7 in 7, which will see seven new large-scale renewable generation developments underway by 2030.

The Harapaki wind farm is already operating, and is capable of powering up to 70,000 households annually. We also expect to commission a 100MW peak and 200MWh (2 hours) grid-scale Battery Energy Storage System (BESS) at Ruakākā Energy Park near Whangārei by early 2025. The BESS will provide a means of storing and providing energy, as well as services which support stable grid operations.

We support those communities located close to generation assets by creating employment opportunities and investing in the region.



Renewable development pipeline as at August 2024.

Renewable generation continued

Grow system flexibility – grid scale

In addition to bringing on new capacity, it's important that we maximise our use of existing assets. Our goal is to deliver 500MW of restored and new capacity from our generation portfolio by the end of FY28.

This year, we've successfully reassessed the maximum capacity of the Benmore power station from 540MW to 552MW. This 12MW increase, which has been available since May 2024, has been made possible by the changes we've made to the Benmore turbines in recent years. We've also increased the capacity of each of the seven Manapōuri units from 125MW to 128MW, despite some challenges in progress due to outages. These enhancements have added the equivalent of a mid-sized wind farm to our generation.

On 31 May 2024 we announced a package of conditional 20-year contracts for part of the New Zealand Aluminum Smelter's (NZAS) electricity needs at Tiwai Point. The package includes a long-term, fixed-price contract for wholesale electricity price cover and a significant demand response agreement that will provide critical dry-year cover, further supporting the decarbonisation of New Zealand's economy. NZAS remains a significant customer, drawing the equivalent of around 36% of our total generation output and 12% of the national demand.

Southern Green Hydrogen (SGH) is a unique opportunity to leverage New Zealand's renewable resources globally, supporting markets to decarbonise their economies and meet international commitments.

The SGH opportunity has faced some headwinds over the past 18 months with global inflationary pressures increasing the cost of renewable energy, the key input to green hydrogen production, and capital costs relating to building hydrogen facilities increasing

substantially. These factors have put pressure on SGH economics, consistent with challenges other hydrogen projects are experiencing overseas. Markets have been slow to resolve the significant gap between the cost of producing green hydrogen and potential customers' willingness to pay for green hydrogen.

As a result, Meridian has decided to put any detailed engineering design work on hold. We will continue to monitor our target markets as we believe Southern Green Hydrogen remains well-placed to be a competitive green project opportunity, especially compared to other projects and jurisdictions, when the time is right.

Climate risks and opportunities

Physical opportunity:

- Improved hydro inflow, improved generation and demand alignment

Transition risks:

- Supply chain affordability and access to goods and services
- Insufficient physical firming plant
- Uncertainty in the wholesale market from carbon price uncertainty

Physical risks:

- Damage to assets from severe weather events
- Flood risk from rainfall
- Hydro inflow volatility
- Supply chain costs and reliability

2030 targets

- 7 new grid-scale renewable energy projects underway in seven years
- 2,000GWh of renewable generation and 200MW of BESS capacity delivered by FY31
- Deliver 500MW of peaking capacity from existing assets by the end of FY28 (from a 1 July 2023 baseline)

2050 targets

- 20 new grid-scale renewable energy projects underway within 28 years

Building resilience spotlight

By FY30 we will complete climate risk assessments and develop climate adaptation plans for all our key operational sites and new development sites. To do this we're creating a framework to determine how vulnerable these sites are to the physical impacts of climate change, such as extreme weather.

Our priority

Customer decarbonisation

We're committed to delivering cleaner, cheaper energy through solutions that unlock value for customers. This includes making it easier for customers to take control of how they use their energy while reducing their emissions.

Grow system flexibility – customer

To achieve our country's climate change targets, we need to get smarter in how we use our energy and manage capacity. We continue to look for and find ways to pass value on to customers, including ways through which our customers can actively participate in the electricity market through more flexible energy options. These innovations will support the delivery of cleaner, cheaper energy, and support our electricity system to become even more renewable and resilient, while reducing the average cost to consumers.

Electrifying transport and heat

Our Process Heat Electrification Programme is on track, with 752GWh of process heat converted from fossil fuels to electricity for big businesses under memorandums of understanding (MOUs), including 525GWh under contract. This level of conversion will prevent 143 kilotons of carbon dioxide equivalent (CO₂e) being pumped into the atmosphere, the equivalent of removing around 70,000 cars from our country's roads. The programme compliments our initiatives in demand flexibility, enabling customers to be part of the electrification solution by rewarding customers flexibility.

This year we've been trialling a product that helps households with EVs to participate in a 'virtual power plant'. Customers who participate help to alleviate strain on the grid during peak demand periods and are paid for their support.

Because EVs can store electricity, customers can make this energy available when the grid needs it most, then recharge when there's less pressure on the grid. The stored power can be combined with other sources, such as hot water cylinders, home solar, and industrial heating and cooling processes.

EV charging is an important factor in transport electrification. Our Zero EV charging network is the second largest in the country and its ongoing expansion will help remove a barrier for those who want to drive electric.

Certified Renewable Energy

191 companies have signed up to purchase more than 2,030GWh of Renewable Energy Certificates (CRE). Meridian's Certified Renewable Energy product allows our customers to match the electricity they use from the grid with an equivalent amount of electricity produced by Meridian from our hydro stations and wind farms – which have been independently verified as producing 100% renewable energy¹. The net proceeds from CRE are invested back into business and community decarbonisation projects.

2030 targets

- To be New Zealand's most loved EV charging network by FY28
- 1,000GWh of process heat under contract



Climate risks and opportunities

Transition opportunity:

- Transport and process heat, electrification, Virtual Power Plants

Transition risks:

- Increased demand reduces overall flexibility in the power system
- Increase in private solar impacts earnings



¹ Certified supports businesses aiming to report their market-based Scope 2 emissions as zero, using the market-based methodology as per the GHG Protocol Scope 2 Guidance. This Guidance highlights that where market-based method is used for reporting, the location-based method reporting must also be applied.

Customer decarbonisation continued

Commercial-scale solar

We support our large customers with commercial-scale solar solutions. We offer payment flexibility with a buy-now option, or customers can choose a Power Purchase Agreement with no upfront capital costs, and we design, install and maintain the solar system for them.

Increasing community good

The impact of our Community Decarbonisation Fund continues to increase. In the past year we've invested more than \$1 million into 14 community projects, to support our aim of advancing decarbonisation projects nationwide.

The long-term, sustainable use of energy in this country is about balancing energy sustainability, energy supply and energy equity – helping people to get themselves back on track and enabling them to access the energy they need. This year we expanded our Energy Wellbeing Programme beyond its pilot, with a goal of helping 5,000 Meridian and Powershop households via a dedicated \$5 million fund over a minimum of two years. The programme provides tailored, flexible support to Meridian households who are experiencing energy hardship.

We aim to remove barriers to electrification for our customers by providing flexible payment options for those who want EV chargers for businesses or homes, or commercial solar.

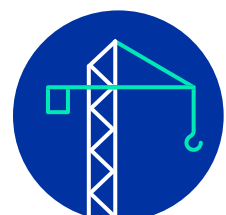


Zero EV chargers in Rolleston.

Our priority

Manage emissions and build capability

Our priority is to reduce our own emissions and ensure we're prepared for the impacts of climate change.

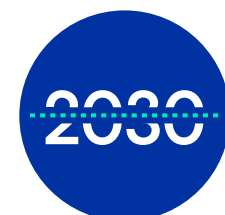


Construction emissions

In our growing pipeline of development projects, we adopt an 'always on' carbon-reduction mindset. In FY24 construction emissions accounted for about two-thirds of our total emissions footprint – or 75,000 tonnes of CO₂e (tCO₂e).

We know we can minimise the emissions from our construction activities and how important it is to decouple the growth of our development pipeline from the growth in associated emissions – during both the construction and operational lives of our assets. Our priority remains to reduce emissions first.

Our Harapaki wind farm is setting a new standard for the low-carbon design, construction and operation of wind farms across Aotearoa. Through it, we've introduced a number of sustainability initiatives to reduce our impacts on the environment, including re-using as much as we can from the site and in the local community. This is our most sustainable project yet, and everything we learn is transferred to the next project with the support of a team of sustainability specialists.



Half by 30

Half by 30 is Meridian's goal to cut operational emissions in half by the year 2030. Our focus is on reducing Scope 1 and 2 emissions, which are those we control directly, and Scope 3 emissions, which come mainly from our supply chain and make up the majority of our emissions.

The Science Based Targets initiative (SBTi) has verified that the Half by 30 underlying targets are science aligned.²

The Half by 30 goal is a significant challenge and our ability to meet it is uncertain. Recognising this, we're planning our actions across three time horizons – and FY24 marks the end of Horizon 1. We expect to achieve the biggest reductions later in the decade due to the Scope 3 emission reductions needed, and are aware of the challenges this will present at a time in which our business and the sector are experiencing growth. Despite our initial emissions-reduction performance we remain committed to our goal. Despite making significant progress in some areas we have been challenged in others and we have not met our first horizon emissions goals. We recognise this target is a multi-year challenge that requires focus and innovation.



Net Zero

We set long-term emissions reduction targets this year reaffirming Meridian's all-encompassing focus on climate action.

We have committed to reduce absolute Scope 1 and 2 greenhouse gas emissions by 90% by FY40 from our FY21 baseline. We've also committed to reduce absolute Scope 3 emissions by 90% by FY50 from a FY21 baseline. We have submitted these targets to the Science Based Targets initiative for Net Zero independent verification and expect to hear the outcome in early FY25.

In setting these targets we made some key assumptions based largely on: reviewing recent standards around Net Zero requirements, what Net Zero commitments have or haven't been set by our existing suppliers, and considering the plausible technology solutions which may become available over this longer time horizon.

For example, a number of our larger suppliers have committed to set net zero targets, and Net Zero standards are asking organisations to be clear on the key attributes of their net zero targets and Science Based Targets no later than 2050. We expect many others to be aligning themselves with this guidance.

² Meridian's Half by 30 target includes underlying targets to halve scope 1 and 2 emissions, and halve scope 3 emissions (excluding all one-time construction emissions from major projects and all activities that are capitalised as part of renewable energy projects). SBTi verified that our commitment to reduce absolute scope 1 and 2 GHG emissions 50% by FY30 from a FY21 base year is in line with a 1.5°C trajectory, with our further commitment noted to also reduce absolute scope 3 GHG emissions 50% within the same timeframe.

Manage emissions and build capability continued

Half by 30 – strategy and assumptions

In Horizon 1 we focused on:

- Emissions we can control directly or which we can have the greatest influence, such as emissions from our vehicle fleet, air travel and ferry. We are bringing the world’s first electric hydro-foiling ferry to Manapōuri, which is expected to start operating in 2025 and to save 240 tCO₂e annually. Air travel remains a challenge to curb as we grow our business.
- Where we can reduce emissions now. For example, the salmon farms that operate in our hydro canals switching to electric power rather than diesel (so far emissions have reduced by an estimated 170 tCO₂e per annum).
- Enabling reductions later in the decade by starting strategic projects that will take time and require working with others in our supply chain.

In FY24 we had some targeted conversations with others in the sector to help us further understand the shared challenge of sulphur hexafluoride (SF₆) – a highly potent fugitive emission found in transformers and switchgear. From this we expect to build some momentum and learn about opportunities to work together on other emissions we have in common. We also started our Supply Chain – Good Energy Programme, which is designed to build Environmental, Social and Governance (ESG) supplier capability. Its initial focus is on helping suppliers learn how to measure and reduce emissions, and set emission-reduction targets.








We plan to step up our work on these strategic projects and on-farm emission reductions in FY25 (the start of Horizon 2), with assistance from our new Farming Engagement and Climate Action Lead.

Key targets/milestones are:

- Implement our Meridian SF₆ Roadmap action to detect emission leakage earlier.
- Start training Meridian’s key buyers and suppliers in ESG and strengthen our approach to contracts and screening.
- Create action plans for all pastoral-based farms in our inventory and craft a plan to 2030 that reduces emissions.

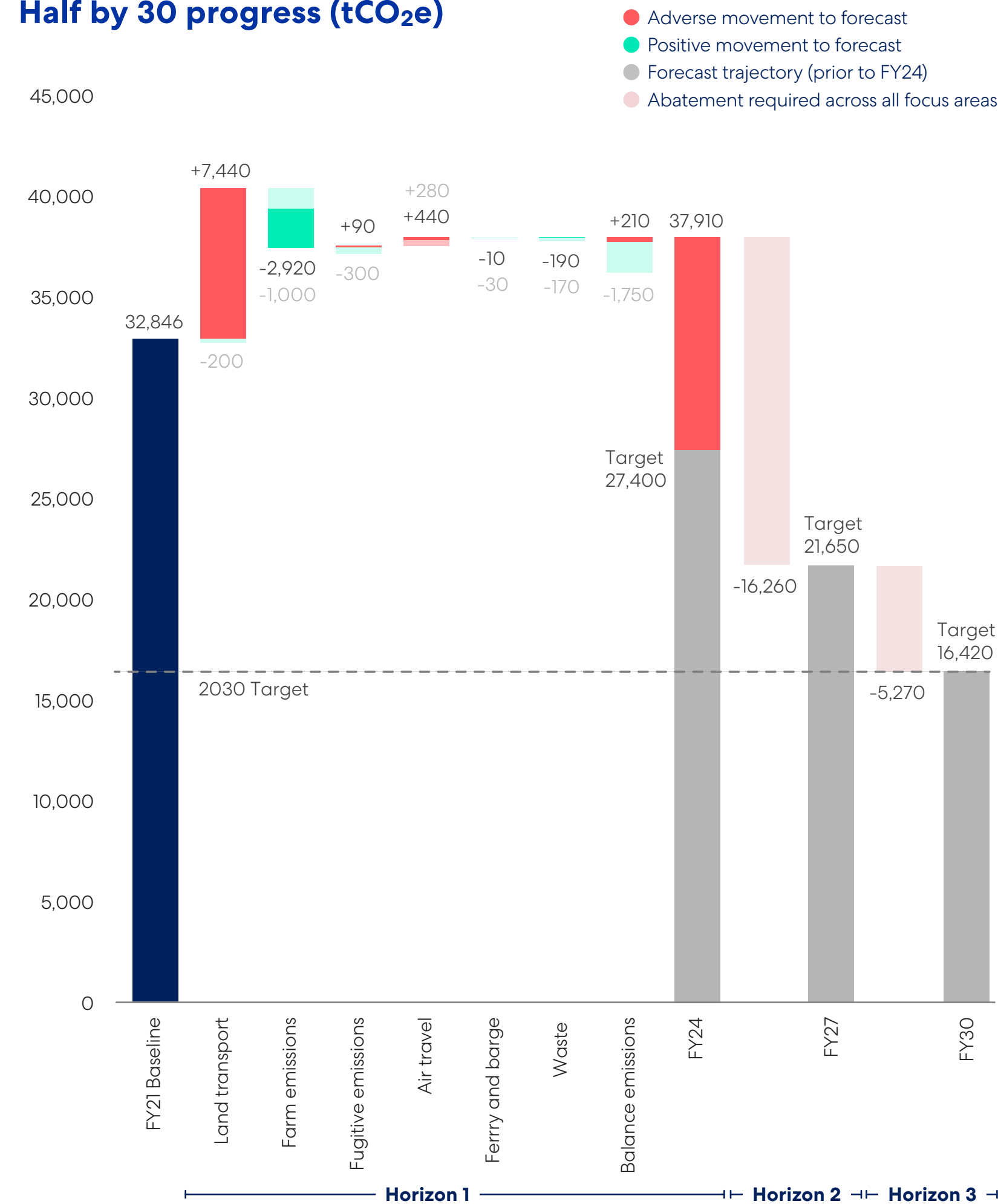
We plan to focus on reducing emissions in all focus areas – including air travel, land transport, waste and the decarbonisation of our barge – to build on progress we’ve already made.

Planned approach for CO₂e reductions

	 Land transport Scope 1 & 3	 Farm emissions Scope 3	 Fugitive emissions Scope 1 & 3	 Air travel Scope 3	 Ferry and tug Scope 1 & 3	 Waste and balance emissions Scope 3
 Horizon 1 FY22–24	Electrify Meridian’s light fleet; refresh offer supporting staff to reduce emissions	Salmon farm electrification New Meridian farm climate action lead role	Meridian SF ₆ Roadmap (mitigation phase)	Set and manage annual air travel emission budgets Improve staff awareness and tools	Agreement for electric Manapōuri ferry	Support data quality improvements
Horizon 2 FY25–27	Decarbonisation of supplier fleet and balance of Meridian fleet Keep supporting staff to reduce commuting emissions	Develop Meridian farm strategy and farm action plans, with emission-reduction roadmaps to 2030 Improve data quality	Progress opportunities identified to accelerate SF ₆ emission reductions, including through collaboration	Support efforts to decarbonise domestic air travel Continue Meridian air budget management	Due diligence on tug decarbonisation options	Good Energy Programme – improve supplier emission-reporting capability and target setting
Horizon 3 FY28–30	Decarbonisation of supply chain heavy fleet	Implement and review farm strategy and action plans, leveraging new technologies and practices to reduce emissions	Momentum and evolution of SF ₆ action	Explore market-based options for air travel decarbonisation	Implement tug decarbonisation options	

Manage emissions and build capability continued

Half by 30 progress (tCO_{2e})



Shows performance to date and movement against Horizon 1 targets.

New spend-based emissions factors became available in FY24 (previously published in 2023, and now updated annually). The adoption of these factors resulted in a >5% change of our total emissions for the base year, driven by impact to balance emissions. As a result we have restated Balance emissions for each year using these factors (an increase in FY21 and FY22, and decrease in FY23), and our Horizon 2 and 2030 target accordingly.

Emissions in FY24

Overall our emissions increased by 14% in FY24, 15% on our FY21 base year emissions, and 38% above our Horizon 1 interim target. These results are confronting and show the challenge and uncertainties surrounding decoupling business growth from emissions growth.

Within this:

- Scope 1 emissions have decreased, and shows that we need to continue the actions we are taking to reduce the emissions in our direct control.
- Scope 2 emissions are reported as nearly zero (under the market-based methodology and noting Renewable Energy Certificates are used where possible).
- The emissions in our supply chain (Scope 3) grew most significantly. The main drivers were increases in Meridian's spend on purchased goods and services (balance emissions) and our share of lines and distribution company emissions from maintenance.

As the sector grows to meet the transition to a net zero world, this new activity will drive the overall emissions and Meridian's share of that growth via the methodology used. We are looking to ensure we clearly report our progress as we rise to this multi-year challenge.

Emissions sources with notable reductions reported in FY24 were SF₆ leakage and on-farm emissions. We know that supply chain emissions must be of even higher focus as we step forward.

In FY25 we plan to review and update our assumptions and abatement forecasts to 2030, including the anticipated reductions across Horizon 2 and 3. We remain committed to our Half by 30 target.

By focus area, emissions were:

Performance to FY24	Baseline FY21	Actual FY22	Actual FY23	Actual FY24
Land Transport	11,525	13,530	14,976	18,968
Farms	5,438	4,740	2,962	2,514
Fugitive emissions	1,572	1,041	2,727	1,662
Air travel	623	518	1,015	1,065
Ferry & barge electrification	229	213	217	217
Waste	225	103	35	39
Balance emissions	13,325	14,421	11,419	13,446
Group emissions	32,846*	34,565**	33,350***	37,910****
FY30 reduction target	32,846	31,032	29,216	27,400

* Scope 1 and 2 is 1,034 tCO_{2e}, and Scope 3 is 31,812 tCO_{2e} of total.
 ** Scope 1 and 2 is 645 tCO_{2e}, and Scope 3 is 33,920 tCO_{2e} of total.
 *** Scope 1 and 2 is 1,192 tCO_{2e}, and Scope 3 is 32,156 tCO_{2e} of total.
 **** Scope 1 and 2 is 1,061 tCO_{2e}, and Scope 3 is 36,848 tCO_{2e} of total

As we develop land for new assets our on-farm emissions profile will change. As with all emissions sources that change with growth of the sector we will continue assess how to best report our performance in a way which decouples growth from emissions reductions.

Farm emissions (tCO _{2e})	FY21	FY22	FY23	FY24
Operational assets at FY21	3,650	2,941	2,634	2,271
New assets this decade	1,788	1,799	328	244

Manage emissions and build capability continued



Growing capability

Underpinning all the actions we take are broader objectives and targets to help Meridian prepare for and adapt to the impacts of climate change.

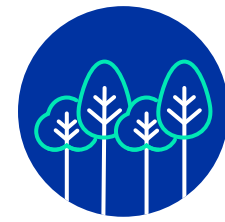
We support tangata whenua to be active kaitiaki of the lands and natural resources on which our business is based, and continue to build our own cultural awareness and capabilities in both forming and enhancing mutually beneficial relationships with iwi and hapu across our operations.

This year we launched an ESG programme for suppliers – the Good Energy Programme – designed to enhance sustainability outcomes throughout our supply chain. We will spend the next year looking at emissions and climate risks, to support implementation of the programme and strengthening our contracts. It will be a multi-year journey that will require annual project review to determine progress and next steps.

Our Sustainability Infrastructure Framework provides guidance for Meridian and its contractors and suppliers on applying sustainability practices to major construction projects in ways that are consistent with our company sustainability commitments.

To build staff knowledge, we've introduced a sustainability e-module as a mandatory resource for all staff. We've also recently launched a sustainability-focused e-newsletter ('Tackling Zero') and a webinar series to discuss key issues in sustainability and climate change.

More detail on our targets and actions is available in our **Climate-related Disclosure FY24**.



Forever Forests

Since 2019 we've invested in planting permanent forests in Aotearoa through our Forever Forests programme, with the aim of creating our own carbon sink for our operational emissions out to 2030. Forever Forests is deliberately sized to soak up the carbon that will be left after we've removed all we can against our Half by 2030 target.

We aimed to plant up to 700,000 trees across the 1,214 hectares by the end of FY25. After deciding to delay planting to source the optimal saplings for our sites, we will now complete our planting programme by spring 2025. Meanwhile, we remain on track to deliver on our target of growing the carbon credits we need for offtake in 2030. Currently our operational emissions are offset via Gold Standard Verified Emission Reduction units.

2030 targets

- Deliver on Half by 30 target



Climate risks and opportunities

Transition opportunity:

- Sustainability leadership and ESG performance



Our nature-positive ambition

In FY23 we made a no net deforestation commitment and we adopted a nature-positive ambition.





Meridian.

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