

23 August 2024

Ministry for the Environment  
Manatū mō te Taiao  
PO Box 10362  
Wellington 6143

## **New Zealand's second emissions reduction plan (2026–30)**

Meridian appreciates the opportunity to provide feedback on the Ministry for the environment discussion document for New Zealand's second emissions reduction plan.

### **Introduction**

Meridian's purpose is clean energy for a fairer and healthier world. Meridian is Aotearoa's largest electricity generator producing energy from 100 percent renewable sources – wind, water, and sun. Meridian is also a major nationwide electricity retailer through our Meridian and Powershop brands.

Meridian is committed to meeting future energy needs with renewable energy and taking bold action on climate change. Some of our recent initiatives include:

- July 2024 completion of the second-largest wind farm in New Zealand (Harapaki in the Hawke's Bay)<sup>1</sup>
- Nearing completion of New Zealand's first grid-scale battery (Ruakākā Energy Park in Northland)<sup>2</sup>
- a target of bringing seven new large-scale renewable generation projects into operation around Aotearoa in seven years<sup>3</sup>
- a 100% electric light vehicle fleet

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<sup>1</sup> <https://www.meridianenergy.co.nz/news-and-events/harapaki-wind-farm-fully-operational>

<sup>2</sup> <https://www.meridianenergy.co.nz/power-stations/ruakaka-energy-park>

<sup>3</sup> <https://www.meridianenergy.co.nz/news-and-events/meridian-energy-targets-seven-large-new-renewable-energy-projects>

- investment in a nationwide network of electric vehicle chargers<sup>4</sup>
- competitive home EV charging plans<sup>5</sup>
- supporting our industrial customers to decarbonise process heat through electrification (examples include Open Country Dairy, Mataura Valley Milk, Alliance Group, Meadow Mushrooms, and Woolworks)<sup>6</sup>
- a significant investment in permanent native forests<sup>7</sup>
- half by 30 – our target to halve our gross scope 1, 2 and 3 emissions by the 2030 financial year (over 95% of our emissions are scope 3 emissions from our supply chain)<sup>8</sup>
- taking a leading role on climate-related financial disclosures since 2019, well in advance of legislation mandating climate-related financial disclosures.<sup>9</sup>

Meridian and the electricity industry will be at the leading edge of the transition to a low-emissions economy and will be a key enabler of emissions reductions in Aotearoa. We support targets and policies aligned with the Paris Agreement, a focus on gross emissions reductions, removals through native afforestation, an effective combination of pricing and complementary policy measures, and policy stability across governments.

Meridian has consistently supported policy initiatives aligned with the Climate Change Commission’s expert independent advice and consistent with meeting Aotearoa’s emissions budgets and our 2050 target.

This submission focuses on the following sectors and policies:

- the emissions trading scheme;
- the proposed ‘net-based approach’;
- energy and industry;
- transport; and
- an equitable transition.

We also broadly support the submissions of Drive Electric and the Sustainable Business Council and Climate Leaders Coalition.

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<sup>4</sup> <https://www.meridianenergy.co.nz/ev/zero-charging-network>

<sup>5</sup> <https://www.meridianenergy.co.nz/for-home/ev-plan>

<sup>6</sup> <https://www.meridianenergy.co.nz/business/sustainable-options/process-heat-electrification-programme>

<sup>7</sup> <https://www.meridianenergy.co.nz/community-support/forever-forests>

<sup>8</sup> <https://www.meridianenergy.co.nz/good-energy/environment/half-by-30>

<sup>9</sup> <https://www.meridianenergy.co.nz/about-us/investors/sustainability/climate-disclosures>

## The emissions trading scheme (ETS)

Meridian agrees with the statements in the discussion document that:

- “The NZ ETS is the best tool the Government has to reduce net emissions at least cost.”
- “The effectiveness of the NZ ETS depends on its credibility.”
- “When working properly, it will encourage greater investment to reduce emissions.”
- “Although the NZ ETS is the Government’s main tool for reducing emissions, there is a place for complementary policies.”

Meridian considers a comprehensive ETS to be the best policy tool to reduce greenhouse gas emissions. Properly designed emissions pricing provides strong incentives to reduce emissions at least cost. It decentralises decisions to invest, innovate and consume across the economy to people who have the best information about opportunities to lower emissions. An emissions price can also be pervasive throughout the economy.

However, to be effective, the ETS must operate to limit unit availability over time in line with emissions budgets and send increasingly strong price signals to reduce gross emissions. There must be steady, market-driven increases in unit price – consistent with the Commission’s advice to date on the ETS auction volume and price pathway settings.

In the absence of increases in unit prices, New Zealand will either:

- not meet its emissions budgets and be off track for the 2050 target (and beyond); or
- need greater direct Government intervention to hit the 2050 target generally at higher cost and with greater disruption to individual investment decisions across the New Zealand economy.

In Meridian’s opinion, the ETS needs to be correctly calibrated to achieve the desired outcomes – most critically the Government needs to grapple with the risks that will arise under a ‘net-based’ approach that results in limited gross emissions reductions. We comment on this challenge further in the section below.

The discussion document suggests that proposals to address the treatment of forestry in the (discontinued) NZ ETS review led to a significant price drop.<sup>10</sup> However, no evidence is

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<sup>10</sup> Discussion document, page 37

provided to support that assertion. In Meridian's opinion, the ETS unit limits and price control settings consultation in late 2022, and the subsequent decisions by the Government of the day to ignore the Commission's advice, seemed to indicate a desire to avoid higher ETS prices. The Government at the time ignored the Commission's advice to:

- reduce unit volumes at auction to reduce unit surplus in the market;
- raise the auction price floor;
- raise the cost containment reserve price and place it in two tranches (to reduce likelihood of oversupply); and
- make cost containment reserve volumes within the total emissions budget rather than in excess of budget volumes.

Those decisions in our view are the most significant cause of the market response and ETS price collapse since the end of 2022 – the opposite outcome to what is needed if the ETS is to incentivise emissions reduction – and the failure of successive ETS auctions

Meridian welcomes the recent decision by the Government to maintain the ETS cost control settings (with inflation adjustments) and reduce auction volumes for 2025 to 2029 consistent with the advice of the Climate Change Commission.<sup>11</sup>

### **The proposed 'net-based approach'**

The advice of the Climate Change Commission was that the emissions reduction plan for the second budget should commit New Zealand to specific levels of gross emissions for the second and third emissions budgets and ensure that policy choices aligned with delivering that outcome. The Commission's advice appears not to have been followed.

Meridian recognises that Aotearoa is different to most other developed countries because the potential scale of land-based carbon removals via forestry is very large relative to national gross emissions. Government decisions are therefore critical to determining how much New Zealand reduces gross emissions or uses forestry to meet the 2050 net zero target. Meridian agrees with previous analysis by the Commission showing there are longer-term risks if we rely too much on forestry including:

- the inevitable 'bounce up' in net emissions after 2050 unless new forests are planted in perpetuity (a physical impossibility);
- the risk of fires, flood, or other natural disasters destroying forests and releasing carbon into the atmosphere sooner than expected;

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<sup>11</sup> <https://environment.govt.nz/what-government-is-doing/areas-of-work/climate-change/ets/nz-ets-market/annual-updates-to-emission-unit-limits-and-price-control-settings/>

- collapse of emissions prices so that investments in gross emissions reduction do not proceed and ETS revenues are greatly reduced; and
- the impact on rural communities of extensive plantation forestry.

Meridian supports the appropriate prioritisation of gross emissions reductions rather than relying too heavily on removals. To achieve this, we broadly support an emissions pricing system consistent with delivering specific levels of gross emissions for the second and third emissions budgets, and with the 2050 net zero target, by:

- implementing an amended ETS that separates the incentives for gross emissions reductions from those applying to forestry removals; and
- developing an approach that can provide durable incentives for carbon dioxide removals by forests (particularly native forests) through to and beyond 2050.

There may also be direct fiscal benefits to the New Zealand economy from policies that drive gross emissions reduction, particularly in the near-term. The Treasury's *Climate Economic and Fiscal Assessment 2023* makes clear that achieving New Zealand's NDC1 of reducing net emissions by 50% below the country's gross 2005 level by 2030 will be challenging and will almost certainly require purchase of offshore mitigation (to the extent that is possible). The cost of purchasing offshore mitigation to achieve New Zealand's NDC1 presents a significant fiscal risk for the Government. For all scenarios considered by Treasury this is estimated to be in the billions depending on the assumed price of offshore mitigation. Therefore, Meridian encourages the Government to consider whether investment in domestic gross emissions reductions this decade might mitigate our NDC1 liability in 2030.

## **Energy and industry**

### *Electricity*

Meridian agrees that the New Zealand electricity system is world-class, and that New Zealand has abundant renewable energy potential. Harnessing this will help meet our emissions budgets, reduce our dependency on imported fuels and support the reliability and affordability of the energy system.

Low emissions electricity can be used to reduce emissions elsewhere throughout the economy by electrifying transport, industrial process heating, and space heating. To meet the anticipated increase in demand for electricity, Meridian and other investors in the electricity sector will need to build new renewable generation.

Since 1996 close to \$16 billion (adjusted for inflation) has been invested in over 27,000 GWh of new electricity generation. This investment has been diversified and has not been dominated by any particular technology or fuel source or by any single company or companies. The risks of these investments have been borne by private investors rather than directly by taxpayers. We note that ten years ago, around 75 percent of New Zealand's electricity was from renewable sources (compared to around 85 to 90 percent today). Since 2012, 1026 MW of thermal capacity has been retired and replaced by new largely renewable generation.

We are confident that the market will continue to deliver new generation as and when required to meet expected growth in electricity demand as we move towards the 2050 target. According to a recent survey by the Electricity Authority, new generation developments committed as at the end of 2023 will produce an additional 5,000 GWh per annum.<sup>12</sup> Looking forward to 2027, an estimated 2,700 GWh of new generation will need to be constructed on top of what has already been completed or committed. The outlook is positive as the pipeline of "actively pursued" generation projects that could be completed by 2027 totals around 20,800 GWh per annum of production (over seven times the amount of new generation per annum that we expect to need by 2027). All of that generation investment will be achieved with private capital and without government subsidy.

Meridian supports the Government's progress in providing increased investment certainty including:

- clarifying that the Crown does not intend to invest directly in electricity generation and storage (the Onslow Scheme); and
- recognising the critical role of gas in the short to medium term to ensure security of electricity supply.

Previous policies had a significant chilling effect on private investment in recent years with the results now keenly felt in the market. Meridian agrees that gas will continue to play a key role in delivering reliable and affordable electricity by firming intermittent generation and providing seasonal flexibility in dry years. This role for gas is consistent with the Climate Change Commission's demonstration pathway, which recognises that using electricity to reduce industrial and transport emissions is lower cost than trying to completely remove fossil gas from the power system in the near term.

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<sup>12</sup> [https://www.ea.govt.nz/documents/4414/Generation\\_Investment\\_Survey\\_-\\_2023\\_update.pdf](https://www.ea.govt.nz/documents/4414/Generation_Investment_Survey_-_2023_update.pdf)

Meridian also strongly supports the focus on reducing the cost and time involved in resource consenting for new generation projects and looks forward to the announcement of specifics as part of Electrify NZ as well as final decisions on the fast-track approvals bill.

Modelling in the technical annex on the impact of Electrify NZ due to easier consenting appears to underestimate the potential benefits as the only change modelled is a reduction in the capital cost of new renewable generation. In addition, there could be benefits in bringing development to market faster than would otherwise be the case. Bringing forward investments in time may reduce wholesale electricity prices for the duration of the time difference. The Authority's review of competition in the wholesale market appeared to indicate that some portion of higher wholesale prices over the review period could be attributed to a lag in time between higher wholesale prices and the ability of generators to bring new projects to market in response. Therefore, reducing that potential lag would likely have value to consumers.

In addition to an enabling consenting environment and investor certainty, ongoing promotion of competition, reliability, and efficiency by the Electricity Authority, in accordance with its statutory objective will benefit consumers and Meridian is strongly supportive. An efficient, competitive and reliable electricity market will enable investment of private capital in renewable generation and demand side flexibility to support the electrification of the economy and resulting emissions reduction, particularly for the transport and industrial process heat sectors.

All forecasts, including Meridian's, suggest that demand for electricity will rise significantly by 2050. However, electricity demand growth projections (particularly beyond the immediate horizon of committed projects) assume that transport and industrial process heat is electrified between now and 2050. There is a risk that current ETS settings will not result in prices sufficient to incentivize gross emissions reductions as removals may be cheaper under the proposed "net-based approach". In the absence of other policies to drive gross emissions reductions we would expect less electricity demand growth, and therefore less opportunity to double renewable generation by 2050.

### *Industrial decarbonisation*

Meridian is conscious that this consultation is occurring during a period of unusually high wholesale electricity prices on the spot market and challenges for some industrial

consumers that have chosen to accept spot price risks. Wholesale spot prices are inherently volatile and recent prices reflect fuel scarcity, including:

- historically low levels of hydro storage lakes for this time of year; and
- significant gas shortages.

The market has responded prudently through demand response arrangements that free up gas from Methanex and security of supply risks now appear to be diminished. It is important to note that seasonal variation in wholesale electricity prices is to be expected in the New Zealand power system. Most consumers have fixed price contracts and are not exposed to this variability. Large industrial consumers also have options to hedge or fix their prices if they choose. In the longer term, Meridian's expectation is that average wholesale prices will reflect the falling costs of entry for renewable generation. We therefore expect long term electricity prices to support the electrification of industrial process heat in New Zealand and commonly agree ten-year prices with industrial counterparts.

Industrial process heat electrification can result in significant emissions reductions in a short timeframe. However, electrification is an economic decision comparing the capital cost and lifetime operating cost of new electric assets with fossil-fuelled equivalents. Electricity prices are one part of this equation, and emissions prices are also key. In Meridian's opinion, there will be less investment in the electrification of industry if the price of exotic forestry effectively caps ETS prices and there are not alternative policies to incentivise gross emissions reductions. In the absence of direct funding or subsidies for industrial process heat electrification, we suggest that other policies should be considered including tax incentives, public private partnerships for supporting network infrastructure (one of the largest costs in any project), or use of the Government's green investment funding.

There are also regulatory barriers to industrial electrification that the Government could help to address to build the momentum of industrial decarbonisation. The regulation of electricity distribution in particular could be improved. In Meridian's experience working with customers on our Process Heat Electrification Programme<sup>13</sup> the capital costs to overcome distribution network constraints are often the main barrier for electrification, including:

- A lack of consistency in pricing methodologies amongst the 29 distribution companies, including inconsistent approaches to the allocation of network upgrade costs between first movers and other network customers. Issues with first mover disadvantage have been addressed for transmission customers under the transmission pricing methodology but remain an issue at the distribution level.

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<sup>13</sup> <https://www.meridianenergy.co.nz/business/sustainable-options/process-heat-electrification-programme>



- Whether there should be more standardised processes and timeframes for dealing with new connection enquiries amongst distributors. We know that the Electricity Authority is working on this but at this stage are not convinced that the Authority will go far enough to drive national efficiency for connection of new industrial load to distribution networks.
- Whether more network information should be proactively and easily accessible to network customers, particularly on existing network capacity and constraints to enable more informed decision-making for new connection investments.

These same issues are also faced by investors in electric vehicle charging infrastructure (see below).

## Transport

Meridian is investing in public EV charging infrastructure under our Zero brand, which is now the second largest charging network in New Zealand. New Zealand lags behind similar countries in terms of public chargers. Public charging gives consumers the confidence to switch to an EV and is a key enabler of uptake. Meridian therefore supports the proposed government action “to enable a network of 10,000 public EV charge points by 2030.”

### *EV uptake*

The effectiveness of the ETS alone as in the transport sector is relatively limited because:

- the capital cost of vehicle purchases appears to have a significant impact on decision-making (as opposed to whole-of-life costs);
- vehicles have long asset lives (up to 20 years) meaning vehicle purchasing decisions now will determine the emissions profile of the New Zealand fleet in the 2040s; and
- demand for transport fuel is relatively inelastic and unresponsive to emissions prices, particularly if the proposed net-based approach results in low emissions prices.

Modelling by Concept Consulting shows that without policies that help to reduce the capital costs of EVs:<sup>14</sup>

- there would be approximately 100,000 fewer EVs on the road by 2030;

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<sup>14</sup> <https://driveelectric.org.nz/wp-content/uploads/2023/12/Concept-Consulting-CCD-Cost-Benefit-for-Drive-Electric-1.pdf>

- the reduced rates of EV uptake will increase non-emissions economic costs to the economy (mainly petrol and diesel) by at least \$900m; and
- the cumulative emissions associated with increased fossil-fuelled travel would increase by at least 0.9 MtCO<sub>2</sub>e out to 2030 (consistent with the technical annex of the consultation paper, which acknowledges that slower EV uptake is contributing to the projected failure to meet the third emissions budget).

These are likely underestimates since the modelling assumes prior clean car import standard settings, which have now been weakened. There are also further air quality and public health benefits associated with EV uptake.

In Meridian's opinion, promotion of EV uptake would result in economic benefits for New Zealand as well as reduce emissions. Transport electrification has been shown to have a negative marginal emissions abatement cost (i.e. reducing transport emissions results in economic benefits rather than costs). Therefore, the Government should remain open to policy options that drive EV uptake. If the Government is not supportive of policies that directly reduce EV capital costs, then we suggest the Government should consider:

- a clean car import standard that is calibrated primarily to drive the transport emissions reductions necessary to meet emissions budgets and targets;
- levelling the existing inequities in the road user charges system<sup>15</sup>; and
- fringe benefit tax incentives for EVs.

### *Public charging infrastructure*

The main constraint for private investment in EV charging is the capacity of electricity distribution lines. As with industrial electrification, there are widely varying pricing approaches and connection enquiry process amongst the 29 distribution networks. In addition, significant new loads like charging hubs can face a first-mover disadvantage as the first to invest and connect new load may also need to fund the upgrade of distribution line capacity with wider benefits to other customers.

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<sup>15</sup> Analysis from the Motor Industry Association shows the equivalent road tax (either fuel tax or road user charge per 1000km) from 1 April 2024 disadvantages fully electric vehicles and acts as an incentive to purchase fossil-fuelled vehicles:

- Battery EV: \$76
- Diesel: \$76
- Petrol: \$61.7
- Plug-in hybrid EV: \$51.6
- Petrol Hybrid: \$39

Meridian therefore supports the supercharging EV infrastructure work programme, in particular:

- reducing red tape and regulation relating to public EV chargers; and
- working with the Electricity Authority on addressing barriers such as connection costs and ensuring consistent approaches to EV charging connections across all 29 electricity distributors.

If the Government does invest in public charging, the mechanism must be designed to catalyse private sector investment. Meridian does not think the government should intervene where the private providers are willing and able to make commercially viable investments. We also think that public funding should be allocated in a way that unlocks maximum private investment. This means public funding support should be tied to demonstrated market gaps and enable a pathway to a sustainable market model. In Meridian's opinion, this would be best achieved if funding is targeted at overcoming specific barriers, such as high distribution network costs. In the longer term, we expect any public funding would fall away and that there would be strong private investment in a competitive EV charging market. Any funding should therefore be mindful of the need to promote and enable competition into the future.

### **Equitable transition**

The impacts of emissions pricing on the wider economy are a deliberate design feature of the ETS and result in incentives for businesses and consumers to change behaviour. This is the core purpose of emissions pricing and should not be a reason to shy away from ETS settings that result in higher prices.

Meridian recognises that increasing emissions prices will have greater impacts on low-income households, as higher income households likely have more capacity to adapt. At the same time, delaying climate action for cost of living reasons will only put more economic pressure on future generations both for mitigation and through increased costs of adaptation if global mitigation efforts are less effective.

Meridian agrees that the Government should utilise social policy mechanisms (funded by ETS auction revenue) to manage transitional impacts. If ETS prices increase so too will the Government's revenue from ETS auctions. The Government can use that revenue to help with policies that ensure an equitable transition and reduce the impact on low-income households in particular.

Please contact me if you have any queries regarding this submission.

Nāku noa, nā



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