Ministry for the Environment
Manatū Mō Te Taiao

New Zealand's second emissions reduction plan

Templated consultation questions

How to use this document

The Ministry for the Environment has developed this template to support individuals and organisations that would like to gather collective input before making a submission on the second emissions reduction plan proposals

This template uses the consultation questions from the online submission portal.

Using the template

- Please follow the structure of the questions.
- There are five required questions in the 'Submitter details' section
- There are four required questions in the 'Privacy statement and consent' section.
- All other questions are optional, and you can answer as many or as few as you would like.

More information about consultation proposals can be found on the MfE website: Help Shape Our Climate Future: Consultation on New Zealand's Second Emissions Reduction Plan now open | Ministry for the Environment

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Submitter details

	Question (all required)	Response
1	**Submitter name** *Individual or organisation name*	Orion NZ Limited
2	**What is your contact email address?** *You will receive an acknowledgement email when you submit your response*	Vivienne.Wilson@oriongroup.co.nz
3	**Are you submitting as an individual or on behalf of an organisation?**	• ☐Individual • ☒Organisation: Name: Orion New Zealand Limited
4	**Which region are you in?**	Please choose one: • ☐Outside of New Zealand • ☐Not applicable – national organisation • ☐Northland / Te Tai Tokerau • ☐Auckland / Tāmaki Makaurau • ☐Waikato • ☐Bay of Plenty / Te Moana-a-Toi • ☐Gisborne / Te Tairāwhiti • ☐Hawke's Bay / Te Matau-a-Māui • ☐Taranaki • ☐Manawatū-Whanganui • ☐Wellington / Te Whanganui-a-Tara • ☐Tasman / Te Tai-o-Aorere • ☐Nelson / Whakatū • ☐Marlborough / Te Tauihu-o-te-waka • ☐West Coast / Te Tai Poutini • ☒Canterbury / Waitaha • ☐Otago / Ōtākou • ☐Southland / Murihiku
5	**Please choose any you are associated with**	• ☐Iwi/Hapū • ☐Local/regional government • ☒Energy industry/Sector body/Business • ☐Transport industry/Sector body/Business • ☐Agriculture industry/Sector body/Business • ☐Forestry industry/Sector body/Business • ☐Non-Forestry industry/Sector body/Business • ☐Waste industry/Sector body/Business • ☐Other industry/Sector body/Business • ☒ETS market participant • ☐Environmental NGO • ☐Other kind of NGO or charity • ☐Other: please specify:

General consultation questions

The following consultation questions relate to the Government's general approach to emissions reductions. Some information is provided along with these questions to support you to answer them without extensive reading of the discussion document.

Share your views	
0.1	What do you think is working well in New Zealand to reduce our emissions and achieve the 2050 net zero target?
	New Zealand has made significant strides in several areas to reduce emissions and work towards the 2050 net zero target. The electrification of the light vehicle fleet, driven by the Clean Car Standard and Clean Car Discount scheme, has been a notable success. It created an enhanced momentum for low and zero emission vehicles. Additionally, the Government's initiative to ban the installation of new coal boilers and phase out existing ones by 2037[1] is a commendable step towards reducing process heat emissions. These are effective ways to significantly decrease net emissions. Prior to its phase-out, the Government Investment in Decarbonising Industry (GIDI) fund proved to be an effective tool for reducing industrial emissions. Notable projects supported by this fund include New Zealand Steel's transition to an electric arc furnace, and Fonterra's fuel shift to biomass and electricity. These initiatives are projected to achieve a substantial average reduction of up to 1,330,000 tonnes of CO_2e per year by 2030. In Canterbury alone, projects within Orion's network, such as upgrades to Synlait's electrical supply, and transitioning Meadow Mushrooms and Coca-Cola Europacific Partners NZ from diesel and LPG boilers, respectively, are set to abate 24,060 tonnes of CO_2e annually.[2] The Regional Energy Transition Accelerator (RETA) has also been an excellent tool to support a well-informed and coordinated approach for enabling regional decarbonisation. The work conducted by the programme across medium and large energy users has been effective in identifying a number of barriers to reducing energy-related emissions that are best addressed at a regional level. As an electricity distribution business (EDB), Orion has found the RETA particularly helpful for forward planning purposes.
0.2	The Government is taking a 'net-based approach' that uses both emissions reductions and removals to reduce overall emissions in the atmosphere (rather than an approach that focuses only on reducing emissions at the source). A net-based approach is helpful for managing emissions in a cost-effective way that helps grow the economy and increase productivity in New Zealand. a. What do you see as the key advantages of taking a net-based approach? b. What do you see as the key challenges to taking a net-based approach?
	Orion, in alignment with the Sustainable Business Council and Climate Leaders Coalition submission, advocates for absolute reductions in gross emissions within a net framework. We believe there is insufficient evidence to support a significant shift in strategy away from focussing on reductions in gross emissions to one that prioritises a net-based least-cost approach. A key challenge of adopting a net-based approach is the potential encouragement of exotic forestry, which could have detrimental effects on biodiversity, indigenous forest and conservation land, and productive farmland. While we acknowledge that the Government appears to address concerns about converting productive farmland in the Forestry section of the Discussion Document, this remains a significant issue. It also does not address the issue that while forestry provides for climate mitigation, it is vulnerable to natural disturbances such as fires, windstorms and insect outbreaks. Another challenge of this approach is that it shifts the burden of meeting emissions budgets onto future generations. By relying heavily on future carbon removal rather than reducing emissions now, we are essentially deferring the problem, potentially making it more challenging and costly for future generations to address[3]. This seems at odds with the Government's desire to take a 'least cost'

[1] https://www.beehive.govt.nz/release/government-ban-new-coal-boilers-place

[2] https://www.eeca.govt.nz/co-funding-and-support/approved-gidi-projects/

[3] https://www.ox.ac.uk/news/2021-07-09-future-generations-will-face-crippling-costs-without-action-now-carbon-debt

Share your views	
	approach. We question to whom this 'least cost' applies and for how long it will remain the 'least cost' option. Moreover, New Zealand is particularly vulnerable to global transition risks, especially in our export markets. If these markets transition and impose additional requirements that we are unable to meet due to our delayed action, it could lead to significant long-term impacts on our economy.
0.3	The current proposed policies in the ERP2 discussion document cover the following sectors and areas: • strengthening the New Zealand Emissions Trading Scheme • private investment in climate change • energy sector • transport sector • agriculture sector • forestry and wood-processing sector • non-forestry removals • waste sector. What, if any, other sectors or areas do you think have significant opportunities for cost-effective emissions reduction?
	We believe that there would be additional benefit in including the energy efficiency sector in the ERP2 discussion. As noted by the Energy Efficiency & Conservation Authority, "*if more New Zealanders switched to energy efficient technology, like LED lighting and heat pumps, we could significantly reduce the cost of meeting our climate commitments and speed up the transition to a low-emissions economy*."[4] This appears to be an overlooked element of the areas detailed above that could provide significant opportunities for cost-effective emissions reduction. We recommend efficiency measures include consideration of insulation and housing standards as well as technological solutions, which have an avoided infrastructure build benefit in addition to significant avoided healthcare costs (e.g. $4 spend avoided for every $1 spent on insulation) for families who can utilise healthier homes. Another area we would like the Government to consider is that of community energy. Energy communities have an important role to play in growing energy literacy, energy efficiency and demand side optimisation. They can also support models for co-investment in neighbourhood scale generation and storage, and facilitate effective community engagement for new large scale energy infrastructure projects.
0.4	What Māori- and iwi-led action to reduce emissions could benefit from government support? There are additional questions about Māori- and iwi-led action to reduce emissions and impacts of proposed ERP2 policies on Māori and iwi in chapters 1 and 12.
	No comment.

[4] https://www.eeca.govt.nz/strategic-focus-areas/energy-efficiency-first/

Chapter 1: Our approach to New Zealand's climate change response | Tā mātou e whai nei e pā ana ki tā Aotearoa urupare ki te panoni āhuarangi

Summary

This chapter outlines the Government's long-term approach to deliver and sustain net zero emissions by 2050 at least cost. We will implement it over time, through successive emissions reduction plans. Key actions taken over the next five years through the second emissions reduction plan (ERP2) will set in motion a least-cost, low-emissions transition.

The Government proposes taking a strong, net-based approach to reduce emissions at least cost. This strategy is based on five pillars.

1 Infrastructure is resilient and communities are well prepared.

2 Credible markets support the climate transition.

3 Clean energy is abundant and affordable.

4 World-leading climate innovation is boosting the economy.

5 Nature-based solutions address climate change.

Chapter 1	
1.1	What opportunities do the proposed initiatives and policies across the sectors offer for Māori- and iwi-led action to reduce emissions?
	No comment.
1.2	What additional opportunities do you think the Government should consider?
	No comment.

Chapter 2: Tracking our progress towards meeting emissions budgets | Te aroturuki i tō tātou koke i te ara whakatutuki i ngā tahua tukunga

Summary

The Government is committed to meeting our climate targets. Our strategy outlines how we will approach the challenges and opportunities in meeting them.

We are building off the momentum that our first emissions budget started. For example, higher rates of forestry have occurred in the last few years, positioning New Zealand well for the future as those trees grow.

Reflecting the Government's change in approach, we have stopped work on some actions that were included in the first emissions reduction plan (ERP1). This is not expected to materially affect our ability to meet the first emissions budget: our current assessment is that ERP1 remains sufficient to meet it.

To maintain an up-to-date ERP1 and reflect decisions that have already been taken, we are now consulting on formally amending ERP1 using the statutory process set out in section 5ZI(3) of the Climate Change Response Act 2022 (CCRA).

The second emissions reduction plan (ERP2) lays the way for us to achieve future budgets, particularly the second emissions budget. The information we have today suggests that ERP2 can be sufficient to achieve the second emissions budget.

The Government will proactively respond to challenges and opportunities to stay within the budgets. We will continue to rely on the most up-to-date modelling as we finalise ERP2, which will allow us to ensure the sufficiency of the final plan.

Chapter 2	
	Current modelling suggests that with a changed approach, the first emissions reduction plan is still sufficient to meet the first emissions budget.
2.1	What, if any, other impacts or consequences of the Government's approach to meeting the first emissions budget should the Government be aware of?
	Orion is concerned that the Treasury has not yet costed the national liability of not meeting our Nationally Determined Contribution (NDC). As outlined in the Discussion Document, we require an additional abatement of approximately 93 MT CO2e, over and above currently proposed policies. There are potentially significant costs that may arise if this gap is not closed. We urge the Government to consider and quantify these potential liabilities to ensure a comprehensive understanding of the economic implications of our current trajectory. This is important for the climate change conversation with the New Zealand public, and our relationships with our trading partners. If we do not meet our obligations under the Paris Agreement, then there will be serious ramifications for New Zealand.
2.2	What, if any, are the long-term impacts from the changes to the first emissions reduction plan on meeting future emissions budgets that should be considered through the development of the second emissions reduction plan?
	Orion has several concerns regarding the long-term impacts of changes to the first emissions reduction plan, particularly in relation to meeting future emissions budgets.

First and foremost, we are concerned about the removal of the Equitable Transitions Strategy. As the Climate Change Commission noted in "Ināia tonu nei: a low emissions future for Aotearoa", *"the transition to a low-emissions society will not lead to lasting change if it creates or exacerbates social inequities. However, the transition can be economically affordable and socially acceptable if it is well-paced, planned together with communities, and well-signalled. Society will benefit from improved health and wellbeing*." The Commission went on to say that:

"50. While overall the costs of the transition are manageable, they will not be evenly felt. Some New Zealanders will be more impacted than others. This could especially be the case for those on low incomes, women, the elderly, people with disabilities, and some Māori and Pacific Peoples.

51. These impacts can be managed through careful policy design, so must not be used as a reason for delay. Government must put policies in place to support those who are most disadvantaged and least able to adjust. This will be important for ensuring an equitable and inclusive transition that does not compound existing inequities or historic grievances. Impacted groups must be included from the start in co-designing policy." [5]

It is not immediately clear to Orion how the Government proposes to manage this risk with the net-based approach. Therefore, we recommend that the development of ERP2 should retain the following ERP1 actions:

- Retention of developing an Equitable Transitions Strategy (3.2.1)
- Retention of supporting regions and industries to manage the transition (3.2.2b).

We would also like to see reinstatement of the work programme to assess how the NZ ETS can support indigenous biodiversity. This was part of ERP1 (action no 5.2.3) which is now a discontinued action. Including biodiversity units in the NZ ETS could provide additional recognition and value for non-forestry removal activities, as well as enhance native biodiversity, flora and fauna.

We are concerned about the shift in focus and potential ramifications of a long-term reliance on carbon capture (CCU) methods other than afforestation. Research conducted by the World Economic Forum has found that the energy demand associated with carbon capture technologies is significant, estimated at approximately 2 MWh per tonne of CO_2e removed.[6] This has potential ramifications that may impact the energy sector, which are not fully addressed in the consultation document. To put this into perspective, to remove the 93 MT CO_2e NDC gap, we would need an additional 186 MWh of generation capacity to be consented, funded, built and operational by 2030.

Orion also has concerns about the changes to the Climate Emergency Response Fund (both the monitoring and reporting, and the redirection of $2.4b from the CERF to other spending areas). We question whether these changes will provide adequate support for the transition to a low-carbon economy, particularly in light of the significant investments required in infrastructure and technology, and the fact that for every $1 spent on adaptation activities, there is a $2 to $10 return in avoided cost associated with the future impacts of climate change.

Lastly, we believe it is crucial to re-evaluate the effectiveness of the Emissions Trading Scheme (ETS). A thorough analysis of the ETS's impact on emissions reduction and its role in driving behavioural and technological change would be beneficial in informing future policy decisions. Also see our comments below.

[5] https://www.climatecommission.govt.nz/public/Inaia-tonu-nei-a-low-emissions-future-for-Aotearoa/Inaia-tonu-nei-a-low-emissions-future-for-Aotearoa.pdf, page 344, paragraphs 49-51.

[6] https://intelligence.weforum.org/topics/a1G68000000G8ZMEA0, Hydrogen and Essential Zero-Carbon Energy.

Chapter 3: Strengthening the New Zealand Emissions Trading Scheme | Te whakakaha i te Kaupapa Hokohoko Tukunga o Aotearoa

Summary

This chapter explains how the Government will support the New Zealand Emissions Trading Scheme (NZ ETS) to help meet the second emissions budget and net zero target. A key focus is the credibility of the NZ ETS and aligning it with the second emissions budget.

Share your views

We are seeking feedback on:

- the Government's proposed actions to strengthen the NZ ETS
- using the NZ ETS as the primary mode for meeting the second emissions budget.

Chapter 3	
3.1	What else can the Government do to support NZ ETS market credibility and ensure the NZ ETS continues to help us to meet our targets and stay within budgets?
	To support NZ ETS market credibility and ensure its effectiveness in meeting our targets and staying within carbon budgets, the Government should focus on ensuring that NZ ETS credits meet international quality standards. As we will outline in our response to question 3.2, a significant risk is that the NZ ETS does not meet globally accepted standards. By aligning our ETS with international best practices, we can enhance its credibility and effectiveness as a tool for emissions reduction.
3.2	What are the potential risks of using the NZ ETS as a key tool to reduce emissions?
	We refer to the statement by the Climate Change Commission in its recently released Monitoring Report: Emissions Reduction, July 2024. As noted on page 21 "*The New Zealand Emissions Trading Scheme (NZ ETS) is an essential part of an effective policy package for reducing emissions, but it cannot itself ensure the emissions budgets are met. The way the scheme operates does not provide certainty about the units available to emitters over the period to 2035. It therefore does not provide certainty about the quantity of emissions from the sectors and sources it covers.*"[7] Reliance on NZ ETS units ensures that we are dependent on a market-based approach to reduce emissions and meet our net-zero goals. This approach may overlook potential other blockers, such as access to technology or financial constraints faced by smaller businesses and households in transitioning to low-emission practices. As the Climate Change Commission has recently said "*The effectiveness of emissions pricing policies (such as the NZ ETS) is limited by barriers such as access to capital, and other challenges in systems, infrastructure and incentives that make it difficult for people and businesses to choose options that have lower emissions. Policies targeted to address these barriers could unlock cost-effective action and make the NZ ETS more effective.*"[8] The Discussion Document also identifies the risk of stockpiling NZ ETS units. The excess, or stockpiled, number of units in the NZ ETS poses a significant risk to achieving emissions reduction targets, as noted by the Climate Change Commission[9]. It is not clear to Orion how the Government proposes to deal with this issue apart from the statement that "*Upcoming decisions on NZ ETS settings are a key vehicle for the Government to manage potential risks and deliver budgets and targets in a way that protects the*

[7] https://haveyoursay.climatecommission.govt.nz/comms-and-engagement/cc2f075f/user_uploads/monitoring-report---emissions-reduction---july-2024--final-web-ready.pdf, page 21.

[8] ibid, page 21.

[9] https://www.climatecommission.govt.nz/news/excess-units-in-nz-ets-pose-a-risk-to-meeting-climate-goals/

	credibility of the NZ ETS." We think ERP2 needs to be more specific about what policies the government is proposing in this regard given that the Government says the NZ ETS is one of its key tools. Another critical risk of over-reliance on the NZ ETS is its failure to meet international best practices. For instance, Toitū Envirocare has transitioned away from accepting carbon credits under the PP89 (Permanent Post 1989 Forest category of the Emissions Trading Scheme) in its carbon certification programmes. This change is to align with evolving standards in the global Voluntary Carbon Market (VCM). The NZ ETS credits for the Permanent Forest Sink Initiative and Permanent Post-1989 Forest categories no longer meet international requirements[10]. The Discussion Document has identified a long-term price target of $75 per tonne in 2028, falling to $50 per tonne from 2035. The Discussion Document notes that "*This assumption does not necessarily reflect the Government's preferred price pathway for the NZ ETS. The Government will be making decisions on NZ ETS unit and price control settings later in the year. These settings will be incorporated into the finalised ERP2 projections*." Our view is that these prices may well not be sufficient to incentivise decarbonisation by businesses. It may be cheaper for some entities to buy units than to continue investing in cutting pollution, which could hinder real progress in emissions reduction. This is a real risk to the credibility and effectiveness of the system.
3.3	How can the Government manage these risks of using the NZ ETS as the key lever to reduce emissions?
	No comment.
3.4	Do you support or not support the Government's approach of looking at other ways to create incentives for carbon dioxide removals from forestry, in addition to using the NZ ETS?
	Please choose one of the following: • ☒Yes, I support • ☐No, I don't support • ☐Unsure
3.5	Apart from the NZ ETS, what three other main incentives could the Government use to encourage removals through forestry?
	The Government should consider distinguishing between exotic and indigenous forests, focussing on increasing indigenous reforestation and afforestation. The current unlimited forestry offsetting, unique to the NZ ETS scheme, can cause issues with the price of credits and may not provide the best long-term environmental outcomes.[11] Creating monetary value for indigenous forests could unlock co-benefits such as increased biodiversity, improved water quality, soil conservation, and enhanced cultural and recreational values. This approach would encourage a more holistic view of forest ecosystems beyond just carbon sequestration.
3.6	Please provide any additional feedback on the Government's thinking about how to use the NZ ETS to reduce emissions.
	No comment.

[10] https://www.toitu.co.nz/news-and-events/news/carbon-credits/press-release-toitu-envirocare-to-transition-away-from-new-zealand-carbon-credits-to-align-with-global-standards

[11] https://www.rnz.co.nz/news/political/492256/new-additional-ets-scheme-floated-in-review-of-carbon-market

Chapter 4: Scaling private investment in climate mitigation | Te whakakorahi tā te rāngai

Summary

This chapter outlines how the Government proposes to better support private investment in reducing emissions. Work is underway across government to understand the barriers to green investment in New Zealand, and to identify options to address them. Through the second emissions reduction plan (ERP2), we will signal our approach to scaling private investment.

Chapter 4	
4.1	Do current measures work well to unlock private investment in climate mitigation?
	• ☐Yes • ☐Partially • ☐No • ☒Unsure
4.2	What are the three main barriers to enabling more private investment in climate mitigation?
	No comment.
4.3	What are the three main actions the Government can do to enable more private investment in climate mitigation for the next 18 months?
	No comment.
4.4	What are the three main things the Government can do to enable more private investment in climate mitigation in the longer term (beyond the next 18 months)?
	No comment.
4.5	Please provide any additional feedback on the Government's thinking about how to enable more private investment in climate mitigation for the next 18 months.
	No comment.

Chapter 5: Energy | Te pūngao

Energy sector at a glance

Annual emissions	• 2022: 15 Mt CO_2-e • 2030 (projected): 12–15 Mt CO_2-e • 2050 (projected): 6–13 Mt CO_2-e
Pillars of the strategy	• Clean energy is abundant and affordable. • Credible markets support the climate transition.
Why this sector is important	• 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.
What we're doing now	• Enabling an acceleration in renewable generation and electricity networks by removing red tape.
What's coming	• Renewable energy will double by 2050. • A smarter electricity system which gives consumers the ability to change how and when they use power.
What this means for New Zealanders	• Over the longer-term households heat their homes more affordably, with renewable energy. • People charge their electric vehicles easily across the country. • Renewable energy providers have confidence to invest, enabling them to grow their operations and meet increasing demand. • Businesses have opportunities to choose cost-effective, low-emissions technologies.

Chapter 5	
5.1	What three main barriers/challenges that are not addressed in this chapter do businesses face related to investing in renewable electricity supply (generation and network infrastructure)?
	Orion is committed to powering a future where our community thrives within a resilient, low-carbon economy. Our Group purpose, "*Powering a cleaner and brighter future with our community*," reflects our dedication to regional prosperity, achieved by striking a balance between energy affordability, reliability, resilience, and sustainability. Our purpose, impact and focus areas are set out in this diagram:  From Orion's perspective, we face several significant internal and external challenges: 1. **Regulatory Framework Limitations and Cross-Agency Misalignment**: As outlined in our response to MBIE's *Measures for Transition to an Expanded and Highly Renewable Electricity System*[12], there is a critical need for alignment across all of Government and regulatory bodies in their expectations and requirements for the energy sector. Currently, we face significant challenges due to conflicting mandates: a. We are required to abide by the Commerce Commission's regulated price pathway, which operates on a 5-year cycle (e.g., DPP3 2020-2025). This framework provides certainty for consumers in prices but creates limitations on investment by EDBs, particularly in terms of balancing capital and operating expenditure on resiliency upgrades. It is essential that the allowances and revenue caps set by the Commission enable EDBs to undertake the necessary investment to support the electrification and decarbonisation of the New Zealand economy. Orion is deeply concerned that at the currently proposed rates for the upcoming DPP4 regulatory period, EDBs will not have sufficient allowances to appropriately support this transition, and therefore hindering New Zealand's decarbonisation efforts.[13] b. Simultaneously, we are expected to meet evolving environmental, sustainability targets, and infrastructure adaptation requirements set by MFE and other regulatory bodies. These often require significant infrastructure investments and operational changes that may not align with the Commerce Commission's pricing framework. c. The Commerce Commission's 7-year input methodology review and 5-year regulatory cycle do not necessarily align with the urgent and rapidly evolving requirements for decarbonisation and network upgrades to support electrification and resiliency adaptation.

[12] https://www.oriongroup.co.nz/assets/Our-story/Submissions/MBIE/Orion-submission-measures-for-transition-to-an-expanded-and-highly-renewable-electricity-system-Nov-2023.pdf

[13] To address the cost challenges and undertake the network transformation required to meet the future needs of our customers, our expenditure forecasts are significantly higher for the Commerce Commission's next five-year Default Price-quality Path (DPP) is compared to the DPP we are currently operating under. Given the uplift in our forecast expenditure we are concerned the DPP determination due late in 2024 will set regulated revenue expenditure allowances at a level that is insufficient for us to meet our community's future network needs. While Orion is currently investing more than its current regulatory period (DPP3) regulated revenue expenditure allowances and incurring material IRIS incentive penalties, in the current period these are balanced out by other inflation adjustment mechanisms. However, as we look ahead to the next regulatory control period (DPP4) these inflation adjustment mechanisms are unlikely to apply and any investment above regulated revenue expenditure allowances, will attract significant IRIS incentive penalties. Given Orion is community owned by the Christchurch City Council and the Selwyn District Council, this incentive penalty reduces funding available for further investment or a reasonable return to shareholders for investment in the community.

Chapter 5	
	While there are flexibility mechanisms available (e.g. reopeners), it is essential that these are able to be prepared and processed in a timely and efficient manner, to provide certainty to EDBs and minimise the costs faced by consumers. 2. **Limitations on Proactive Investment**: Our ability to proactively invest in future-proofing our network is constrained by regulatory settings (e.g., DPP3 and DPP4). It is clear our current regulated line charge revenues will struggle to support sustainable growth and development of our network to keep pace with our community's needs. This creates several issues: a. For greenfield and brownfield housing developments, we face significant risks if we develop our network for a full planned development that may not materialise completely. If we develop to support the entire project, but it does not occur, this cost is socialised across our customer base, and reduces our ability to invest in other resilience areas. b. For significant industrial process heat conversions, we may need to construct a new zone substation, which can take up to 6-7 years to complete when taking into account such matters as consenting and procurement of plant such as transformers. This leads to a "chicken and egg" situation where we cannot be the first mover due to regulatory expenditure limits, and businesses cannot be the first mover due to our capacity constraints. c. We cannot proactively lock-in or reserve network capacity for third-party businesses, creating further uncertainty for companies considering transition. Businesses want certainty and confirmation of capacity at their own internal early stages. **3. Policy Uncertainty:** We need cross-party consensus and policy certainty between political cycles to maintain momentum and enable New Zealand to meet our climate targets. Significant fluctuations in policies between Governments do not provide investment certainty and create risks of sunk costs. On this basis, it would be desirable for the Government to reach political consensus as to the need for and terms of an overall Energy Strategy. From the Discussion Document, it is not clear to us whether the Government wishes to pursue an Energy Strategy as detailed in first Emissions Reduction Plan. 4. **Workforce Capacity and Capability**: As noted by the International Energy Agency in their New Zealand 2023 Energy Policy Review, there is a critical need for sufficient capacity and skills to deliver on energy efficiency projects.[14]The scale of upcoming energy efficiency upgrades will require a significant expansion of skilled workers across the sector and specialty skills training in the energy efficiency space must be given due consideration. 5. **Decarbonisation timeframes:** The timeframe for small-medium enterprises to switch from traditional methods of energy generation (e.g., coal or gas) to electricity is uncertain. If these businesses delay matters (e.g. because of no available funding), there is a potential impact on an EDB's ability to deliver on a surge of requests to electrify operations, if companies wait too long to transition. For example, the North Canterbury RETA Summary Report identified that upgrades to sites with higher peak demands in network-constrained areas may indicatively cost between $1m and $7m and take between 12-48 months to fully upgrade the local network. This can increase significantly if changes to the transmission network are required; one large industrial facility that required these changes had an associated cost of $27m.[15] This could have long-term impacts on New Zealand's ability to meet upcoming emissions reduction targets. Addressing these types of barriers is crucial for Orion to fully realise our strategic goals with our community, and effectively support Central Canterbury's rapid growth and transformation while confronting the climate emergency. We look forward to seeing the various actions that the Government will take to address these concerns in ERP2.
5.2	How much will the Government's approach to driving investment in renewable energy support businesses to switch their energy use during 2026–30 (the second emissions budget period)?
	Please choose one of the following answers • ☐A lot – it will make a large difference

[14] https://www.iea.org/reports/new-zealand-2023

[15] https://www.eeca.govt.nz/assets/EECA-Resources/Co-funding/RETA-North-Canterbury-Summary-Report.pdf

Chapter 5	
	• ☐A moderate amount - there will still be other barriers • ☐Little to none – it will make no meaningful difference • ☒ Unsure Until we see the details of the Government's proposals, we are unsure whether the Government's approach to driving investment in renewable energy will support businesses to switch their energy use during 2026–30. However, we support: • Exploring ways to strengthen New Zealand's energy efficiency and demand flexibility regulatory regime. • Progressing amendments to the Energy Efficiency and Conservation Act 2000 to enable standards to be set for devices with capability for demand flexibility, including EV smart chargers. • Exploring further innovation in tariff design (such as feed-in-tariffs for rooftop solar and battery systems) and wider tariff innovations that could enhance uptake of household battery systems and encourage businesses and households to change how and when they use electricity. We look forward to ERP2 setting out further policy details of these measures, and the Government moving at pace to give effect to these things.
5.3	What three main barriers/challenges do businesses and households face related to electrifying or improving energy efficiency, in addition to those already covered in the discussion document?
	• **Access to capital through the GIDI fund**: From our conversations with industrial customers, cancelling the GIDI fund has removed a key commercial incentive for investing in process heat conversions. The high cost of conversion and limited efficiency gains, compared to current and medium-term projected coal and gas prices, have eliminated many incentives for our customers to transition. • **Constrained electricity network areas**: These constraints stem from the current regulatory settings that limit an EDB's ability to proactively invest in network infrastructure to meet future demand, ahead of current consumption needs. We have explained this further throughout this submission. It might also create difficulties in efficiently providing for integrated distributed energy resources and new technologies into our network. It can also hinder our ability to optimise the network for increased electrification and energy efficiency initiatives. • **Household challenges:** There are a range of reasons as to why households face barriers or challenges in improving energy efficiency. Barriers include knowledge of or trust in information about energy efficiency, cost, and access to transition technologies.[16] • **People in energy hardship also face challenges and barriers in improving energy efficiency:** In the report "*Te Kore, Te Pō, Te Ao Mārama Energy Hardship: The challenges and a way forward*", the Energy Hardship Expert Panel noted that recent data shows 110,000 households across the country could not afford to keep their homes adequately warm. The same data shows Māori, Pacific peoples, renters and low-income households were far more likely to experience energy hardship. The Panel identified the key drivers of energy hardship for our work as: housing type and quality,

[16] As part of exploring these barriers and challenges, Orion and Wellington Electricity have partnered in the Resi-Flex project to explore the use of flexibility from residential consumers as part of the future energy mix. Through understanding the requirements of all users across the value chain for flexibility – from consumers to flexibility stakeholders, to distribution network companies – Resi-Flex is helping to define and trial the commercial mechanisms needed to incentivise greater use of flexibility resources in the future. To date, part of the project has included exploring motivations, barriers and solutions in using flexibility services and products. Consumers have indicated that cost savings and environmental reasons are important motivations for using flexibility. Barriers include the perceived lack of control (eg an EV is not charged when needed, and an aversion to changing the daily routine together with the perceived effort to make changes. See "*Resi-Flex Unlocking the value of residential flexibility*" https://www.oriongroup.co.nz/assets/Your-energy-future/Resi-Flex-Public-Report-Release-2023.pdf

Another example is in Australia, which has seen remarkable success in rolling out rooftop solar across the country, provides valuable insights into overcoming these challenges. As of the first quarter of 2023, Australia has a cumulative total of 3,742,601 registered rooftop solar installations, with a capacity of 22.58 GW. This success has primarily been driven by financial incentives, such as Small-Scale Technology Certificates (STCs) for installing solar systems, or state-based interest free loans for installing solar PV panels. These STCs can amount to savings of about 25-30% on installation costs.

Chapter 5	
	household energy needs, efficiency of household appliances, household income, energy sources, cost of energy, where one lives (location) and knowledge about energy.[17]
5.4	How much will existing policies support private investment in low-emissions fuels and carbon-capture technologies?
	Please choose one of the following answers • ☐A lot – it will make a large difference • ☐A moderate amount - there will still be other barriers • ☐Little to none – it will make no meaningful difference • ☒ Unsure
5.5	What three main additional actions could the Government do to enable businesses to take up low-emissions fuels and carbon-capture technology?
	• Loosen the regulatory regime for distributors to enable proactive investment in increasing network capacity, resiliency, adaptation, and unlock community benefits. • Reintroduce the GIDI fund to assist with process heat conversions.
5.6	If you are an electricity generator, please explain and/or provide evidence of how Electrify NZ could affect projects already planned or underway.
	No comment.
5.7	If you are an electricity generator, please explain and/or provide evidence of how Electrify NZ could increase the likelihood that new projects will be investigated.
	No comment.
5.8	Please provide any additional feedback on the Government's proposals to reduce emissions in the energy sector and the industrial processes and product use sector.
	The regulatory regime must support a significant, urgent ramp-up in investment by EDBs to facilitate the timely transition towards a 100% renewable, distributed, and flexible electricity system. We advocate for: • A whole-of-energy system approach that enables the market to function effectively without picking winners. This includes supporting innovation and developing market-based models that reflect the entire energy system's costs and benefits. • Adoption of dynamic, adaptive policy pathways that acknowledge uncertainties in energy transition pathways and enable innovation in market mechanisms. As outlined in our response to question 5.1, our purpose is powering a cleaner and brighter future with our community. We aim to drive prosperity for our region by balancing energy affordability, energy security, and sustainability. Our focus areas include: • Facilitating decarbonisation and hosting capacity at lowest cost while giving our customers choice on how they access our network. • Being a force for good in the community we serve, enabling the net zero transition. We welcome the opportunity to innovate and seek ways to support Central Canterbury's rapid growth, deliver on our commitment to confronting the climate emergency, and respond to our customers' increasing desire for control over their energy choices. Standing still in a changing world is not an option for us.

[17] See Energy Hardship: The challenges and a way forward, Energy Hardship Expert Panel Report to the Minister (mbie.govt.nz)

Chapter 6: Transport | Te tūnuku

Transport sector at a glance

Annual emissions

- 2022: 13.6 Mt CO_2-e
- 2030 (projected): 11–16 Mt CO_2-e
- 2050 (projected): 3–11 Mt CO_2-e

Pillars of the strategy

- Clean energy is abundant and affordable.
- Credible markets support the climate transition.

Why this sector is important

- The transport system is critical to economic growth and productivity. New Zealand is in a strong position to decarbonise transport through electrification.
- Making clean energy accessible and enabling electric vehicle (EV) uptake via improved charging infrastructure will remove some non-market barriers to uptake.

What we're doing now

- We are reviewing the Clean Car Importer Standard to ensure it is effective and achievable.
- We are working with businesses through Sustainable Aviation Aotearoa to understand the barriers to decarbonising aviation.

What's coming

- We will enable a network of 10,000 public EV charging points by 2030 and facilitate private investment in EV charging infrastructure.
- We will review regulatory barriers to decarbonising heavy vehicles.
- We will work with other countries on sustainable aviation fuels and low- and zero-carbon shipping on key trade routes by 2035.
- We will support public transport in our main cities.

What this means for New Zealanders

- People can charge their EVs easily across the country.

Chapter 6	
6.1	Do you support the proposed actions to enable EV charging infrastructure?
	Orion believes that the Government's focus on assumed barriers of high network connection costs, different processes for connecting to networks, and long lead-in times for new connections as the largest barriers for the uptake of additional EV charging infrastructure is misplaced. These issues are primarily symptoms of underlying regulatory constraints, rather than independent barriers. The current regulatory framework limits our ability to proactively invest ahead of need in network infrastructure, which in turn leads to these perceived barriers. **Regarding different processes for connecting to networks**: Significant work is being progressed by Electricity Networks Aotearoa, Electricity Engineers' Association, and the Electricity Authority to streamline and standardise the connections process and connection costs. However, while connection points can be standardised, upstream configurations must be tailored to each network's unique characteristics. Fast charging locations generally require site-specific assessments based on network configuration and capacity. Our inability to invest in network capacity without demonstrating significant need exacerbates this issue. For instance, connecting in an urban environment differs greatly from connecting in a rural area, with constrained electricity supply. These variations in processes and pricing reflect the complex reality of managing diverse network environments, whilst allowing for consistency where possible. **Regarding high network connection costs**: A key issue to resolve is determining who should bear the cost of site-specific assessments and necessary network upgrades to support commercial EV charging operations – network customers, or private for-profit CPOs themselves. The issue varies significantly based on network size and customer base. In smaller networks, for instance, there's a question of fairness regarding who should bear the cost of infrastructure that may primarily benefit tourists or a small subset of local users? Lewis Pass, highlighted in the Discussion Document as an area with high-demand, but low-capacity, exemplifies this challenge. With no existing distribution or transmission infrastructure to support fast charging, installing a system based on a traditional poles and lines network may be prohibitively expensive without Government intervention. This scenario underscores the need to balance the need for widespread charging infrastructure, with fair cost allocation. **Regarding long lead-in times**: Orion questions what is considered a 'long lead-in time'. This can vary significantly depending on customer expectations and their requirements. It's worth noting that Orion has received positive feedback from CPOs about our performance in these areas. This suggests that the issues are more complex than they appear and require a holistic, sector-wide approach. To effectively address these challenges, we need to look at the underlying regulatory framework that shapes our ability to respond to the rapidly changing demands of electrification, rather than treating the symptoms that arise out of EDB processes as issues that can be resolved independently.
6.2	What are the three main actions the Government can do to reduce barriers to and enable the development of a more extensive public EV charging infrastructure in New Zealand (without adding too much cost for households and businesses)?
	• **Enhance funding and whole-of-sector strategic planning for network capacity improvements**: Provide additional funding, outside of regulatory limits, for distributors to proactively improve network capacity, addressing areas where even minimal extra capacity is challenging. This issue requires a holistic approach, considering the needs of both consumers and industry. We propose a collaborative effort to set realistic expectations and timelines, allowing EDBs sufficient time and resources to plan, implement and balance EV charger connections with other critical connections, such as process heat conversions, especially in capacity-constrained areas. A comprehensive whole-of-sector strategy is essential to ensure the most effective allocation of resources for overall emissions reductions. • **Revise funding mechanism structures and timelines**: Future funding mechanisms should be restructured to address some of the challenges faced by EDBs in their application. We recommend longer planning horizons and more flexible regulatory frameworks to enable EDBs to meet the demands of the energy transition effectively. • **Facilitate land acquisition for critical infrastructure**: Central and Local Governments should prioritise making suitable land available for critical infrastructure development. The construction of additional zone substations to support network expansion can take up to six years or more, requiring extensive planning, procurement, and construction phases. A streamlined process for

Chapter 6	
	identifying and acquiring appropriate sites would significantly enhance our ability to meet the growing demands on our network in a timely manner. • **Status of current Strategy:** It would be helpful for the Government to clarify the status of the current Strategy "*Charging our Future: A Draft Long-Term Electric Vehicle Charging Strategy for Aotearoa New Zealand*". It is not referred to in the Discussion Document and it is not clear to us whether the Government proposes to retain this Strategy as well as including an implementation action in the second Emissions Reduction Plan. It is critical that there is clarity on the status of this Strategy and how it relates to the proposal to enable a network of 10,000 public EV charge points outlined in the Discussion Document.
6.3	Do you support the Government's proposals to reduce emissions from heavy vehicles?
	While Orion supports the overall goal of reducing emissions from heavy vehicles, we have concerns about the current proposals and their implementation. Our position is based on the following observations: • **Lack of Industry Engagement**: To date, we have not been approached by any CPOs regarding the development of hydrogen electrolysers in our network or the installation of fast chargers compatible with commercial trucking fleets. The focus of these operators remains exclusively on public light vehicle chargers. • **Infrastructure Development Challenges**: As outlined in our responses to questions 6.1 and 6.2, significant time and resources are required to support the development of necessary infrastructure. The transition to low- and zero-emissions heavy vehicles will require substantial network upgrades and new technologies that cannot be implemented without careful planning and investment. • **Realistic Timelines and Expectations**: We believe that the current proposals may not fully account for the complexities involved in transitioning heavy vehicle fleets to low- or zero-emission alternatives. A more comprehensive approach that considers the entire ecosystem - from energy generation and distribution to vehicle technology and infrastructure - is necessary. We recommend that the Government engages closely with EDBs and other relevant stakeholders to develop an achievable roadmap for reducing emissions from heavy vehicles.
6.4	What are the three main actions the Government can do to make it easier to switch to low- and zero-emissions heavy vehicles (without adding too much cost for households and businesses)?
	• Introduce a range of financial measures to encourage the adoption of low- and zero-emissions heavy vehicles, such as grants or tax incentives for businesses purchasing electric or hydrogen-powered trucks, or an extension of the RUC exemption for the heavy fleet. • Develop a comprehensive heavy vehicle transition plan, and work collaboratively with EDBs and Transpower to assess and plan for the necessary grid upgrades to support increased power demand. • Please refer to our response to question 6.2 for additional actions that the Government can do to ease the transition to low- and zero- emissions heavy vehicles. In addition, Orion supports the actions outlined within the Sustainable Business Council and Climate Leaders Coalition response to the Government's draft second emissions reduction plan.
6.5	Do you support the Government proposals to reduce emissions from aviation and shipping?
	• ☐Yes I support • ☐No I don't support • ☒Unsure
6.6	What opportunities might there be from rolling out new technologies to reduce emissions from aviation and shipping?
	Orion supports the actions outlined within the Sustainable Business Council and Climate Leaders Coalition response to the Government's draft second emissions reduction plan.
6.7	What are the three main actions the Government can do to make it easier to reduce emissions from aviation and maritime fuels (without adding too much cost for households and businesses)?
	Orion supports the actions outlined within the Sustainable Business Council and Climate Leaders Coalition response to the Government's draft second emissions reduction plan.

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6.8	Please provide any additional feedback on the Government's thinking about how to reduce emissions in the transport sector.
	Orion recognises the critical importance of reducing emissions in the transport sector as part of New Zealand's climate change mitigation efforts. However, we advocate for a more nuanced, system-wide, and cross-sector approach that views this challenge as a multifaceted issue requiring collaboration among all stakeholders. This holistic perspective is essential for developing integrated solutions that consider the interdependencies between various aspects of the transport system, energy infrastructure, and urban planning. As noted in the Sustainable Business Council and Climate Leaders Coalition's response to the Government's draft second emissions reduction plan, it is critical that "*New Zealand takes a high-level, system-wide view to ensure the ERP is robust to potential disruptions, and to ensure that it provides accurate signalling to businesses about the trajectory. For example, if process heat electricity, heavy transport, and aviation are all competing for the same (waste) biomass resource and making significant investments, there could be a risk to the pathway*."[18] We urge the Government to set realistic expectations and timelines, acknowledging the complexities involved in this transition. EDBs require adequate time and funding to plan and implement necessary infrastructure upgrades. Decision-making should be evidence-based, utilising comprehensive data collection and scenario planning to ensure our infrastructure investments are resilient and adaptable. To support this transition effectively, we recommend aligning regulatory frameworks across different Central Government agencies, investing in workforce development to build necessary skills, and engaging in comprehensive public education. By adopting this approach, we can ensure that the changes implemented to support emissions reduction in the transport sector are not only successful but also sustainable and beneficial for all of New Zealand. This transition can be achieved through careful planning, adequate funding, and a collaborative effort from all stakeholders.

[18] Sustainable Business Council and Climate Leaders Coalition's response to the Government's draft second emissions reduction plan, page 10.

Chapter 7: Agriculture | Te ahuwhenua

Agriculture sector at a glance

Annual emissions	• 2022: 41.3 Mt CO_2-e • 2030 (projected): 36–40 Mt CO_2-e • 2050 (projected): 30–44 Mt CO_2-e
Pillar of the strategy	• World-leading climate innovation is boosting the economy.
Why this sector is important	• Agriculture makes up about half of New Zealand's total emissions. It is essential that domestic efforts to reduce emissions support our farmers to produce emissions-efficient products and do not cause production to shift to other parts of the world where it is more emissions intensive.
What we're doing now	• We are reviewing methane science and targets. • We are accelerating the development of mitigation tools and technologies to reduce on-farm emissions. • We are developing measurement of on-farm emissions for use by 2025.
What's coming	• We will implement a fair and sustainable pricing system for on-farm emissions by 2030.
What this means for New Zealanders	• The agriculture sector maintains production of low-emissions goods to access high-value markets. • The sector uses technologies to lower emissions while lifting productivity and the value of exports.

Chapter 7	
7.1	What are the three main barriers or challenges to farmer uptake of emissions-reduction technology?
	No comment.
7.2	How can the Government better support farm- and/or industry-led action to reduce emissions?
	No comment.

7.3	How should Government prioritise support for the development of different mitigation tools and technologies across different parts of the agriculture sector?
	No comment.
7.4	What are three possible ways of encouraging farmer uptake of emissions-reduction tools?
	No comment.
7.5	What are the key factors to consider when developing a fair and equitable pricing system?
	No comment.
7.6	Please provide any additional feedback on the Government's thinking about how to reduce emissions in the agriculture sector.
	No comment.

Chapter 8: Forestry and wood processing | Te ahumahi ngāherehere me te tukatuka rākau

Forestry and wood-processing sector at a glance

Annual removals	• 2022: –4.6 Mt CO_2-e • 2030 (projected): –15 to –16 Mt CO_2-e • 2050 (projected): –15 to –27 Mt CO_2-e
Pillars of the strategy	• Credible markets support the climate transition. • Nature-based solutions address climate change.
Why this sector is important	• Forestry and wood processing remove carbon from the atmosphere to reduce our net emissions and produce high-value products that can replace emissions-intensive ones.
What we're doing now	• We are restoring confidence in the NZ ETS to give certainty to the forestry and wood-processing sector.
What's coming	• We propose to limit whole-farm conversions to forestry on high-quality land to protect highly productive farmland. • We will boost wood processing by improving the consenting framework, supporting commercial investments and getting the system settings right to be building with wood.
What this means for New Zealanders	• We reduce net emissions, while protecting our most valuable and productive farmland.

Chapter 8	
8.1	How could partnerships be structured between the Government and the private sector to plant trees on Crown land (land owned and managed by the Government)?
	Orion has experience in structuring partnerships with various industry groups, including mana whenua, to support forest establishment programmes. Based on this experience, we recommend that the Government consider a multi-stakeholder approach in structuring partnerships for planting trees on Crown land. Key considerations should include: • Engagement with mana whenua to ensure local iwi and hapū are involved in the decision-making process and have opportunities to participate in and benefit from the partnerships. • Consultation with local communities to involve residents and community groups in the planning process. • Collaboration with environmental groups to ensure best practices are followed. • Coordination between government agencies such as Land Information New Zealand (LINZ) and the Department of Conservation (DOC).
8.2	What are the three main actions the Government could do to streamline consents for wood processing?
	• No comment.
8.3	How large should the role of wood in the built environment play in New Zealand's climate response?
	• ☐Less than currently • ☐About the same as currently • ☐More than currently • ☒Unsure
8.4	What other opportunities are there to reduce net emissions from the forestry and wood-processing sector?
	The Boston Consulting Group (BCG) has released a report highlighting the growing demand for voluntary carbon-emissions credits. [19] Developing a Voluntary Offsetting Market could assist sectors not covered by the ETS to participate in offsetting their emissions voluntarily, potentially leading to increased afforestation and reforestation efforts. Working with local authorities to implement rates relief for landowners who plant and establish native forests to incentivise private landowners to contribute to increasing forest cover with native species, providing both carbon sequestration and biodiversity benefits.
8.5	Please provide any additional feedback on the Government's thinking about how to reduce emissions in the forestry and wood-processing sector.
	Orion agrees with and supports the Government's focus on targeting unproductive farmland. We raise concerns about the government's approach to apparently targeting conservation land for reforestation and afforestation. It is critical that we prioritise indigenous afforestation to realize co-benefits, such as enhanced biodiversity, improved water quality, and climate resilience through better adapted local ecosystems. Planting non-indigenous forests on conservation land would be a mistake and could potentially harm existing ecosystems. As identified in the EECA North Canterbury RETA report, the majority of Grade A, K, KI, and KIS timber grown in this region is exported.[20] We question the efficiency and sustainability of exporting high-quality timber only to import it back for use as building materials. This practice may lead to unnecessary transportation emissions and economic inefficiencies. Orion questions the validity of the projected afforestation rates beyond FY2026. Historical afforestation rates have varied dramatically, and it is not clear from the consultation document how these future

[19] https://www.bcg.com/publications/2023/why-the-voluntary-carbon-market-is-thriving

[20] https://www.eeca.govt.nz/assets/EECA-Resources/Co-funding/RETA-North-Canterbury-Summary-Report.pdf

Chapter 8	
	rates were established. It is unsafe to assume future stable growth, as this appears to be solely reliant on a stable ETS unit price.

Chapter 9: Non-forestry removals | Ngā tangohanga ngāherehere-kore

Chapter 9	
9.1	What are the three main opportunities for non-forestry removals to support emissions reduction?
	• Developing a robust voluntary carbon market for non-forestry removals could provide financial incentives for landowners and businesses to invest in these practices. This market could help monetise • the carbon sequestration benefits of activities such as wetland restoration, coastal vegetation management, and enhanced soil carbon practices. • Working with local authorities to implement a rates relief programme for landowners who engage in non-forestry removal activities could provide a significant incentive. This approach could help offset the potential economic losses associated with land-use changes and encourage more widespread adoption of these practices. • Investing in and supporting the native plant nursery industry to increase the production of native species is crucial. This support would enable greater investment in establishing native species and building critical stocks, which is essential for scaling up non-forestry removal activities such as wetland restoration and riparian planting.
9.2	What are three main barriers to developing more non-forestry removals?
	A significant barrier to developing more non-forestry removals is the current incentive structure that heavily favours exotic forests. These incentives should be re-evaluated and potentially reduced to make non-forestry removal options more attractive to landowners. By levelling the playing field, we can encourage a more diverse and resilient approach to carbon sequestration.
9.3	It is important to balance landowners ability to use their land flexibly with the recognition of the role of non-forestry removals. How can this balance be achieved?
	As mentioned in our response to question 9.1, implementing a rates relief programme through local authorities for landowners engaging in non-forestry removal activities could provide a significant incentive while maintaining land-use flexibility. As noted above, we recommend re-establishing the work programme to assess how the NZ ETS can support indigenous biodiversity. This was part of ERP 1 (action no 5.2.3) which is now a discontinued action. Including biodiversity units in the NZ ETS could provide additional recognition and value for non-forestry removal activities, as well as enhance native biodiversity, flora and fauna.
9.4	What three main benefits beyond emissions reductions could be created by developing more non-forestry removals?
	• Reducing the number of pests can lead to healthier and more robust native forests. This, in turn, increases their ability to act as carbon sinks, while also promoting biodiversity and ecosystem resilience. • Many non-forestry removal activities, such as wetland restoration and riparian planting, can significantly enhance water quality in nearby streams, rivers, and lakes. This improvement in water quality can have far-reaching positive impacts on both aquatic ecosystems and human communities. • Non-forestry removal practices often contribute to improved soil health and structure. This enhancement can lead to better protection against soil degradation and erosion, which is crucial for maintaining productive landscapes and preventing sedimentation in waterways.
9.5	What risks and trade-offs from incentivising land-use and management change to reduce net emissions need to be considered?
	No comment.

9.6	Please provide any additional feedback on the Government's thinking about how to reduce emissions through non-forestry removals.
	To develop a more comprehensive and effective strategy, we strongly recommend that the Government conduct further consultations with industry stakeholders. These consultations can provide valuable insights into the practical challenges and opportunities associated with non-forestry removals, and help ensure that any policies or incentives developed are well-aligned with on-the-ground realities and industry capabilities. We support the joint submission of the Sustainable Business Council and Climate Leaders Coalition on this point and note their submission that the Government "*work with the private sector to determine actions to align with international biodiversity markets and/or design a New Zealand based system. International private investment is likely to require the same parameters as climate finance (for example, around credibility and transparency) and standardisation with global norms. It could also realise global scale finance. A bespoke New Zealand scheme is likely to recognise the specifics, for example, the role of Iwi/Māori within projects*."

Chapter 10: Waste | Te para

Waste sector at a glance

Annual emissions	• 2022: 3.5 Mt CO_2-e • 2030 (projected): 3.3 Mt CO_2-e • 2050 (projected): 3.0 Mt CO_2-e
Pillars of the strategy	• Infrastructure is resilient and communities are well prepared. • Credible markets support the climate transition.
Why this sector is important	• Waste is an important issue to New Zealanders.[21] Enabling better waste diversion will help households and businesses to reduce their waste and the associated emissions. Local and central government and the waste management, resource recovery and recycling sector all have key roles in this system.
What we're doing now	• The New Zealand Emissions Trading Scheme (NZ ETS) incentivises efficient landfill gas capture. • A portion of the waste disposal levy is invested in New Zealand's waste infrastructure.
What's coming	• We will have further targeted investment in New Zealand's resource recovery infrastructure and systems (including for construction and demolition waste). • We will investigate improving organic waste disposal and landfill gas capture.
What this means for New Zealanders	• Waste-related biogenic methane emissions are further reduced. • More reusable and recyclable resources are available for use in the New Zealand economy.

[21] Waste-related issues have continuously featured in the top 10 concerns of New Zealanders in the Colmar Brunton/Kantar better futures survey, including the 2023 survey.

Chapter 10	
10.1	Do you agree or disagree that the Government should further investigate improvements to organic waste disposal and landfill gas capture?
	• ☐Agree • ☐Disagree • ☒Unsure
10.2	What is the main barrier to reducing emissions from waste (in households and businesses or across the waste sector)?
	No comment.
10.3	What is the main action the Government could take to support emissions reductions from waste (in households and businesses or across the waste sector)?
	No comment.
10.4	Please provide any additional feedback on the Government's thinking about how to reduce emissions in the waste sector.
	No comment.

Chapter 11: Helping sectors adapt to climate change impacts | Te āwhina i ngā rāngai ki te

Summary

The Climate Change Response Act 2022 (CCRA) requires emissions reduction plans to include a multi-sector strategy to meet emissions budgets and improve the ability of those sectors to adapt to the effects of climate change. This chapter outlines how we propose to adapt to the effects of climate change through the second emissions reduction plan (ERP2).

As we work to reduce emissions, we also need to manage climate change impacts. How we approach this could affect the ability of sectors to adapt either positively (ie, adaptation co-benefits) or negatively (ie, maladaptation).

Chapter 11	
11.1	What are the three main barriers to managing climate risks through emissions reduction policies in this discussion document?
	• **Lack of useful and targeted information:** There is a significant gap in industry-specific data and standards related to climate change risks. This results in an inability to manage and apply this information in context. For example, as an EDB, it can be challenging to determine which climate data sources are most useful, and how best to effectively integrate that data into our operational decision-making. • **Insufficient policy on critical infrastructure**: While we acknowledge that the current Government is pursuing a Critical Infrastructure Resilience programme, there is still a lack of updated and relevant policy direction on critical infrastructure and industry requirements. While the Civil Defence Emergency Management Act 2002 provides a framework for emergency management, it does not fully address the complexities and interdependencies of modern critical infrastructure systems. In addition, in April 2024, the Government discharged the previous Government's Emergency Management Bill noting that many of the Bill's intended outcomes for critical infrastructure entities can be progressed by the Minister for Infrastructure to enhance the resilience of New Zealand's critical infrastructure system, with a Bill likely to be introduced in late 2025. However, this further delays policy direction on these matters.[22] • **Limited resourcing and capability**: In the National Climate Change Risk Assessment for New Zealand report, MFE identified the priority risk: "*risk of delayed adaptation and maladaptation due to knowledge gaps resulting from under-investment in climate adaptation research and capacity building*."[23] We strongly agree with this assessment, and acknowledge that there is a shortage of specialised skills and capability required to effectively plan for and implement climate adaptation strategies. There is a need for significant capacity building across interconnected sectors to ensure that organisations and communities can effectively respond to climate risks. This includes developing the ability to understand complex climate data, conduct robust risk assessments, and implement appropriate adaptation measures.
11.2	What are the three main benefits of managing climate risks that can come from the emissions reductions policies in this discussion document?
	The primary benefit of managing climate risks is the mitigation of climate impacts on future generations. By proactively addressing climate risks, we can reduce the severity and impact of climate-related events, thereby minimising their potential negative effects on our infrastructure, economy, and communities.
11.3	What are some examples of how businesses and industries are already managing climate risks?

[22] See https://www.dpmc.govt.nz/sites/default/files/2024-04/pr-govt-decision-not-proceed-emergency-management-bill.pdf

[23] https://environment.govt.nz/assets/Publications/Files/national-climate-change-risk-assessment-main-report.pdf

Chapter 11	
	As outlined in our 2024 Asset Management Plan (AMP),[24] Orion has implemented a comprehensive approach to resilience planning for a range of events, from severe storms to high-impact, low-probability (HILP) events. Our investments in resilience focus on reinforcing infrastructure, implementing redundancy measures, and enhancing emergency response protocols. These efforts are directly related to recovery from events that impact our network, assets, or service provision. A more resilient network will limit the initial impact of climate-related events, enabling faster restoration of power for customers experiencing outages and reducing recovery time from major events. We recognise that climate change will increase wear and tear on our network assets, increase the incidence of damage from severe weather events, alter urban landscapes due to flood risk and rising sea levels, and modify asset performance while elevating fire risk due to rising air temperatures. In response to these challenges, we are prioritising proactive investment in our network to help mitigate the future impacts of climate change. We base our decisions on the latest climate data and apply localised climate analysis to the network where applicable. This includes a strategic focus on sourcing and managing critical spares for our most important assets. By ensuring we have adequate spare parts and equipment readily available, we can significantly reduce downtime and accelerate recovery in the event of climate-related disruptions. This approach not only enhances our operational resilience but also contributes to the overall stability of the electricity supply in our region. Beyond individual company efforts, New Zealand's Energy sector is taking collective action to address climate risks. A key example of this sector-wide approach is the active participation in critical lifeline utility groups, and the on-going refresh of the Electricity Engineers' Association (EEA) Industry Resilience Guidelines. These collaborative efforts are complemented by involvement in cross-sector initiatives such as the Alpine Fault response group. Such groups play a crucial role in coordinating preparedness and response strategies across multiple sectors, enhancing our collective ability to mitigate and adapt to climate-related risks. By sharing knowledge, resources, and best practices, these industry-wide initiatives significantly strengthen the resilience of New Zealand's energy infrastructure.
11.4	How can these kinds of activities be further supported?
	Continued funding and improvement of public data sources, such as the datasets NIWA have recently released. The datasets that this organisation publishes are critical and are constantly improving. Their work is invaluable for informed decision-making. Our sector would benefit greatly from collaborating with larger companies and industry groups to share knowledge about effective practices. For example, meetings with gentailers could help us all be part of a comprehensive solution, recognising that while challenges may arise at different points in the chain, partnerships across the industry are crucial. Addressing the limitations of the current funding model (DPP/CPP) for EDBs, which currently restricts our ability to proactively and pre-emptively spend additional unplanned OPEX/CAPEX to fund resiliency initiatives.
11.5	Please provide any additional feedback on the pathway the Government has set out for managing climate risks from emissions reduction activities.
	We strongly recommend that the Government consider both emissions reduction and adaptation simultaneously. These two aspects of climate change response are intrinsically linked, and addressing them in tandem will lead to more effective and comprehensive solutions. While Orion has raised concerns about the current funding model (DPP/CPP) for EDBs, we acknowledge that both our focus, and the Government's focus should be on targeted spending, rather than simply increasing expenditure. It's essential that all parties involved in the transition identify where we can make the most impact, through increasing the resilience of our assets and our communities, and focus our efforts accordingly. Finally, we suggest continuing to conduct regular reviews and updates of sector-specific adaptation strategies and climate risk assessments. This will ensure that our approaches remain current and effective in the face of evolving climate challenges.

[24] https://www.oriongroup.co.nz/assets/Our-story/Publications/Orion-AMP-2024.pdf

Chapter 12: Addressing distributional impacts of climate mitigation policy | Te whakatutuki i ngā pāpānga tohatoha o te kaupapahere whakamauru panoni āhuarangi

Summary

Alongside our efforts to reduce emissions, we need to address the distributional impacts from climate mitigation policy in the second emissions reduction plan (ERP2). Reducing emissions and increasing removals can be disruptive and impose costs on different groups of New Zealanders.

Each emissions reduction plan is required, under the Climate Change Response Act 2022 (CCRA), to include a strategy to mitigate the impacts of reducing emissions and increasing removals on employees and employers, regions, iwi and Māori, and wider communities, including the funding for any mitigation action.

This chapter sets out an initial analysis of the distributional impacts of some policies in this discussion document. It also outlines how we will more thoroughly assess and address those impacts in the published ERP2.

Chapter 12	
12.1	What are the main impacts of reducing emissions on employees, employers, regions, iwi and Māori, and/or wider communities that you believe should be addressed through Government support?
	The main impacts that should be addressed through Government support include: • Equity challenges, especially for communities with limited access to emerging technologies like electrification (both installation of residential solar and purchasing EVs for personal use), risks creating a divide between those who can afford to adopt new technologies and those who cannot. This may exacerbate existing socioeconomic disparities. • Communities reliant on high-emission or high-demand electricity industries (e.g. paper mills), may face significant economic disruption.[25] This may disproportionately affect Māori and Pacifica communities. • Continued focus on improving housing standards, particularly in terms of energy efficiency, is crucial. This includes maintaining and potentially expanding initiatives like the Healthy Homes programme to ensure that emissions reduction doesn't come at the cost of well-being for vulnerable households. • There's a need for greater investment in community-level initiatives that allow local groups to explore and implement their own energy solutions. This includes support for projects like Community Energy Activator,[26] which bridges knowledge gaps and empowers communities to participate actively in the energy transition. • As some high-emission industries may need to scale back or close, there will be impacts on employment. Government support should focus on retraining programmes, facilitating transitions to green jobs, and providing adequate social support during these transitions.
12.2	The Government can use a lot of existing tools to support people affected by reducing emissions (welfare and income support systems, employment and training services). Do you think additional climate-specific services, supports or programmes should be considered by the Government over the coming years?

[25] See recent announcements by Winstone Pulp International, Panpac and Oji Fibre to shutter or close plants.

[26] A joint project between Orion, Ara Ake and the Community Energy Network.

Chapter 12	
	Please describe what additional climate-specific services, supports or programmes could be useful.
	We believe additional climate-specific services, supports, and programmes should be considered by the Government. There is a need for community-focused initiatives that bridge knowledge gaps and enable diverse participation in the energy transition. Programmes like the Community Energy Activator and collaborative efforts such as the Canterbury Energy Wellbeing Collective exemplify the potential of community-led approaches. The Collective, which brings together community services, agencies, and academic institutions, demonstrates the power of collaboration in addressing energy wellbeing, healthy homes, and energy education. Such initiatives should be supported and replicated nationwide to ensure equitable access to emerging technologies and to empower communities to develop localised energy solutions. The continuation and enhancement of housing standards programmes, like Healthy Homes, is essential to ensure that emissions reduction efforts align with improved wellbeing outcomes. Exploring community ownership models for renewable energy projects could provide innovative solutions, especially for renters and low-income households who might otherwise be left behind in the transition. Finally, the Government should consider reinstating and expanding rebates for low-emission technologies (including EVs and residential solar), establishing and facilitating green loan programmes for community energy projects, and developing comprehensive emissions education initiatives. These measures, coupled with support for green industry growth and workforce transition programmes, would create a more holistic approach to emissions reduction. By fostering collaboration, as seen in the Canterbury Energy Wellbeing Collective, and addressing barriers to participation, the Government can ensure a just and effective transition to a low-emissions economy that benefits all New Zealanders.

Privacy statement and consent to release submissions

Who will see your submission

The Privacy Act 2020 applies certain principles about the collection, use and disclosure of information about individuals by various agencies, including the Ministry for the Environment. It governs access by individuals to information about themselves held by agencies. Any personal information you provide as part of a submission will be managed in accordance with the Privacy Act.

All submissions will be accessible to Government agencies and Crown Entities that are responsible for developing or implementing parts of the second emission reduction plan. This includes, but is not limited to, the following:

- Ministry of Transport
- Ministry for Primary Industries
- Ministry of Business, Innovation and Employment
- Ministry for the Environment
- Waka Kotahi / New Zealand Transport Agency
- Energy Efficiency and Conservation Authority
- Civil Aviation Authority
- Maritime New Zealand
- KiwiRail
- The Treasury
- Land Information New Zealand.

How submissions will be used

The Ministry for the Environment will publish a summary of submissions which will not identify any individual submitters.

After receiving submissions, we will analyse them to help inform final decisions on the second emissions reduction plan which will be published by the end of 2024.

Publishing of your submission

The Ministry for the Environment may publish on its website the content of submissions (including names of submitters) as they are often of high interest to the public or share them in response to an Official Information Request (under the Official Information Act 1982).

The Ministry for the Environment will also retain your/your organisation's name and email address as part of a stakeholder list for future communication about ERP2 or related climate issues.

By providing a submission, the Ministry for the Environment will consider that you consent to the release and retention of your details.

If you do NOT wish your personal details to be released or retained please indicate that below.

If you think any part of your submissions should be withheld for publication or release under the Official Information Act please indicate what and why below.

We will consider your preference when responding to any requests for information. You have the right to request access to or to correct any personal information you supply to the Ministry.

Privacy statement and consent to release submissions	
A.	Have you read and understood our privacy statement on who will see your information and how it will be used?
	☒Yes, I have understood the statement (required)
B	Do you consent to your submission being published on the Ministry for the Environment's website?
	Please choose one of the following answers: • ☒Yes • ☐ Yes, but without publication of Submitter name • ☐No
C	If yes to the above, clearly state if there are parts of your submission that you do not want published.
	Click or tap here to enter text.
D	Do you consent to your details being kept as part of a stakeholder list for future communication about ERP2 or related climate issues?
	Please choose one of the following options: • ☒Yes • ☐No

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