

Pre-election Briefing Paper

**Policy priorities for accelerating climate
action and building a resilient Aotearoa.**



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Sustainable Business Council

wbcscd Global Network Partner

CLIMATE LEADERS COALITION

ON A MISSION TO REDUCE EMISSIONS IN NEW ZEALAND



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Executive Summary

The Sustainable Business Council (SBC) and Climate Leaders Coalition (CLC) present this Pre-election Briefing Paper, which sets out a series of key recommendations for an incoming government to accelerate our emissions reductions and address adaptation so we can secure a climate-resilient, net-zero future where people thrive.

This document represents the collective views of the members of SBC and CLC, a group of more than 160 businesses who contribute more than 40 percent of New Zealand's GDP. SBC is part of BusinessNZ, New Zealand's largest business organisation.

The recommendations set out in this paper recognise the criticality of accelerating our actions on climate change with a dual focus by a) reducing our emissions (mitigation) and b) adapting to and improving our resilience in the face of the impacts we are already facing from an increasingly warming world.

We also recognise climate change, social wellbeing and biodiversity loss are inextricably linked and must be addressed together. Nature provides critical solutions for both mitigation and adaptation, and it must be protected or enhanced through our climate action.

We have set out 10 recommendations, that taken together will reduce New Zealand's emissions in line with our net zero targets and will prepare New Zealand for the significant shifts in our climate. We have chosen these actions based on how much they will contribute to emissions reduction and have elevated climate adaptation to the first recommendation given how much work is required to build momentum in this area. Crucial to these recommendations is also a focus on a just transition, and the need to put people firmly at the heart of the enormous task before us.

Top among these recommendations include actions that will enable business to go further, faster to reduce their emissions while working with the government to provide clear direction and partnership on climate adaptation. These include:

1. **Maintain and uphold the climate change response architecture** which has sent a signal to the private sector about the trajectory toward 2050, giving businesses the certainty needed to invest and innovate to advance New Zealand's pathway to a zero-carbon, climate resilient economy. It is critical those signals don't change, even if the government does.
2. **Accelerate action on climate adaptation while reducing emissions** – work in partnership with business to provide clear policy direction on adaptation efforts over the short and long term; review the size and scope of funding to support climate change adaptation; and implement the Infrastructure Commission's recommendations on strengthening resilience to shocks and stresses.
3. **Accelerate transport decarbonisation in both the light and freight fleets** – decarbonise light passenger travel through electrification (including charging infrastructure capacity and alignment with EU standards); decarbonise freight through optimisation, fuel switching and mode shift; and decarbonise aviation.
4. **Increase investment in infrastructure for decarbonisation and electrification** – accelerate the development and implementation of the New Zealand Energy Strategy; update regulatory settings to enable regulated infrastructure to support decarbonisation; provide clear consenting

pathways for energy infrastructure; and explore policy measures to incentivise the uptake of distributed renewable technologies.

5. **Maintain momentum to reduce agriculture emissions** – maintain support for the Centre for Climate Action Joint Venture, a major private-public partnership with New Zealand's leading agricultural companies launched in 2022 that is focused on accelerating agricultural GHG emissions reductions.

To support these key measures, we also recommend the following:

6. **Accelerate action to ensure a just transition**
7. **Decarbonise industrial processes (especially process heat)**
8. **Reduce emissions from waste and the built environment**
9. **Implement a national sequestration strategy that protects nature**
10. **Improve the disclosures framework**

Adopting these recommendations will provide the enduring pathways required to achieve the country's net zero commitments, as well as the certainty our businesses need to continue to invest in their own decarbonisation and climate-resilience journeys. We know neither business nor government can do this alone, and both have crucial roles to play.

For the government, that means identifying areas for genuine and enduring partnership between the public and private sector that work across multiple election cycles. At the same time, it means also ensuring the necessary regulatory frameworks and complimentary measures that are required are quickly put in place to ensure business can continue to invest in their transition at the pace required of them.

Our businesses are already stepping up to play their part by delivering on their bold ambitions. Ahead of October's General Election, we are calling on whoever forms the next government to adopt these recommendations and do the same. We stand ready to work alongside them, no matter where they sit on the political spectrum, to rise to the enormous challenge ahead. Only by working together can we adequately seize the opportunity before us and secure a climate-resilient, nature-positive, and low-emissions future, where all New Zealanders can thrive.

As we noted in our previous reports¹, the task of transitioning to a low-emissions economy is enormous and there is a lot of work to be done. We call on the incoming government to maintain the momentum in reducing New Zealand's emissions and building our resilience. The task is urgent, but the response must be enduring. Emissions budgets agreed across Parliament will give business a clear signal that they can invest in a zero carbon future with confidence².

In this paper we focus on concrete proposals that will enable meaningful emissions reductions which can be readily translated into policy, ensuring an inclusive, orderly, fair, and enduring transition for all New Zealanders. We believe the timely implementation of the 10 recommendations set out in this paper will continue to build on the important work we have underway and enable us to bend New Zealand's emissions curve while also preparing for the impacts of a warmer climate. A full set of recommendations is set out in a table on the following pages.

We look forward to meeting with political leaders over the upcoming months to discuss how we can agree the practical next steps in accelerating the country's journey to net zero by 2050, and building an Aotearoa that is resilient to a rapidly changing climate.

¹ [2020 Pre-Election Brief](#), [2021 CCC report](#), [2021 ERP report](#), and [2022 NAP report](#).

² We use the term 'zero carbon' as used in Zero Carbon Act to mean all domestic greenhouse gas emissions, including biogenic methane.

Summary of key recommendations

We recommend an incoming government:		
1. Maintain and uphold the climate change response architecture	1.1	Commit to maintain and uphold the climate change response architecture.
2. Accelerate action on climate adaptation while maintaining momentum in reducing emissions	2.1	Accelerate action on both emission mitigation <i>and</i> proactive climate adaptation, by also considering nature-based solutions to adaptation
	2.2	Work with business and local government to provide greater clarity on short and long-term direction on adaptation
	2.3	Urgently review the size and scope of funding plus roles and responsibilities required to support climate change adaptation
	2.4	Implement the Infrastructure Commission's recommendations on strengthening resilience to shocks and stresses
	2.5	Partner with business to take immediate action in areas already impacted by climate change
3. Accelerate transport decarbonisation in light and freight fleets	3.1	Implement actions to accelerate decarbonisation of light passenger travel through electrification and mode shift, with a particular focus on charging infrastructure capacity and alignment with EU standards
	3.2	Implement actions to decarbonise heavy freight through optimisation of decarbonisation options, fuel switching and mode shift
	3.3	Prioritise investment in low and zero emissions rail and coastal shipping, two key sectors for enabling freight mode shift
	3.4	Develop and implement a strategy to decarbonise aviation
4. Increase investment in infrastructure for decarbonisation and electrification	4.1	Prioritise completion of the New Zealand Energy Strategy and take a whole-of-system approach to complementary energy policies
	4.2	Amend regulatory settings to enable regulated infrastructure to support the decarbonisation of the economy
	4.3	Provide clear consenting pathways for energy infrastructure as part of the RMA reform
	4.4	Implement policy measures to incentivise the uptake of distributed renewable technologies
	4.5	Recognise the need for renewable energy certification

We recommend an incoming government:		
5. Maintain focus on reducing agriculture emissions	5.1	Reduce agricultural emissions through the Centre for Climate Action joint venture
	5.2	Identify tools to help farmers transition to a low emissions economy and adapt to the changing climate
	5.3	Promote a nature-based solutions (NBS) approach to assessing the environmental impacts from agricultural practices
6. Accelerate action to ensure a just transition	6.1	Complete the Equitable Transitions Strategy in 2023 and work with business and other stakeholders to ensure the Strategy is implemented
7. Decarbonise industrial processes (especially process heat)	7.1	Decarbonise industrial processes (especially process heat) through the public-private action resulting from the GIDI fund
8. Reduce emissions from waste and the built environment	8.1	Implement actions to support circular economy initiatives
	8.2	Improve waste recovery, recycling rates, and waste tracing
	8.3	Provide policy direction on organic waste as part of the Bioeconomy Strategy
	8.4	Reduce emissions and waste from the built environment through necessary amendments to the building code, requiring embedded carbon measurements and undertaking a large-scale retrofit programme
9. Implement a national sequestration strategy that protects nature	9.1	Develop a national sequestration strategy that recognises the environmental, social, and economic benefits of a well-balanced use of sequestration as a mitigation tool
10. Improve the disclosures framework	10.1	Ensure climate scenario assumptions are used consistently for the purpose of climate disclosures
	10.2	Improve guidance on the disclosure of Scope 3 emissions
	10.3	Explore in partnership with business the introduction of Nature-related Financial Disclosures in the New Zealand market

Recommendation 1: Maintain and uphold the climate change response architecture

Key recommendations

- 1.1 Commit to maintain and uphold the climate change response architecture.

1.1 Commit to maintain and uphold the climate change response architecture

The Climate Change Response (Zero Carbon) amendment Act passed in 2019 with the support of all parties present. It set in legislation the 2050 target, marking New Zealand as a leading nation in its commitment to goals through legally binding means. The Act created a system of emissions budgets and accompanying emissions reduction plans to enable New Zealand to meet its targets. The Act also requires the Government to develop and implement policies for climate change adaptation. It established the Climate Change Commission, an independent body to provide advice across adaptation and mitigation.

The creation of this architecture was strongly supported by SBC and CLC members who advocated for its bipartisan support. Members consider the legislation to be critical to our country's transition to a zero-carbon, climate resilient economy.

The architecture echoed the structure established by the United Kingdom for tackling climate change, intended to create a long-term apolitical approach that provides predictability about the direction of travel.

Since the passing of the Act, other pieces of climate infrastructure have been created, like the Climate Chief Executives Board. The first emissions budgets have been set with widespread political support and strong business engagement. The first emissions budget period is underway, and we have welcomed the introduction of the National Adaptation Plan.

Collectively these mechanisms have sent a clear signal to the private sector about the trajectory toward 2050, enabling New Zealand businesses to have certainty about what needs to be achieved for climate change mitigation and adaptation. Certainty allows investment and innovation to flow. It enables the creation of opportunities and implementation of new strategies by businesses, aligned with the objectives we have collectively set for Aotearoa New Zealand. It is critical these signals don't change, even if the government does.

We would urge all political parties to maintain and uphold the climate change response architecture agreed. Continuing support and commitment to address this collective challenge will ensure a stronger response. We urge the government to continue to work in partnership with business to generate momentum around the transition to a New Zealand where people, business and nature thrive together.

We recommend the incoming government commit to maintaining and upholding the climate change response architecture.

Recommendation 2: Accelerate action on climate adaptation while reducing emissions

Key recommendations

- 2.1 Accelerate action on both emissions reduction *and* proactive climate adaptation
- 2.2 Work with business and local government to provide clear policy direction on adaptation efforts over the short and long term, by also considering Nature-Based Solutions to adaptation
- 2.3 Urgently review the size and scope of funding plus roles and responsibilities required to support climate change adaptation
- 2.4 Implement the Infrastructure Commission's recommendations on strengthening resilience to shocks and stresses
- 2.5 Partner with business to take immediate action in areas already impacted by climate change

2.1 Accelerate action on both emission reduction *and* proactive climate adaptation

Mitigation and adaption are two integrated aspects of the climate change challenge and should be addressed as part of a complementary suite of government policies. Additionally, nature intersects with both mitigation and adaptation as a consideration and a source of solutions.

New Zealand Government policy distinguishes between the two work streams as evidenced by the separate Emissions Reduction Plan (ERP) and National Adaptation Plan (NAP).

We have previously commented primarily on mitigation because the focus has been on meeting New Zealand's emissions reduction targets and developing the machinery to do that. Work on adaptation policy evolved in parallel and we have contributed to that workstream, but here, for the first time, we include comments on adaptation and resilience together in our pre-election briefing.

Mitigation and adaptation responses should not be seen in isolation from each other.

- We **recommend** the incoming government maintain a focus on both mitigation and adaptation as complementary tools necessary to reduce the negative impact of climate change on our country. We note a number of important linkages with regulatory work in train currently, such as the Commerce Commission's Input Methodologies review (and the extent to which it enables funding for network resilience), as well as the review of the vegetation management regulations.

The first few months of 2023 have underlined the fact that while New Zealand needs to maintain its commitment to reducing our emissions in line with our international obligations, we also need to accelerate our work on preparing the country for a rapidly changing climate. This will require the same bipartisan approach we have seen for climate mitigation, and we are encouraged to see that many political parties have committed to taking that approach to this critical work.

One of our members, IAG, led the establishment of an SBC and CLC representative Adaptation Working Group in 2022 to accelerate the work of business in this important area. The group includes many of New Zealand's leading companies, spanning engineering, insurance, banking, finance, and specialist advisory firms. We are keen to work alongside the government (as we do on mitigation) to accelerate adaptation work and look forward to further discussions on this vital subject.

We note the introduction and recent consultation on Mandatory Climate-related Risk Disclosure. This disclosure process provides an opportunity for government to enable and support consistent and credible risk identification. Taking this approach would help inform targeted adaptation to the risks that matter most to New Zealand, as identified by reporting entities across sectors. The quality of disclosures is directly correlated to New Zealand's ability to effectively plan and adapt to the most material impacts of climate change, highlighting the importance of relevant support and guidance.

Furthermore, there is an opportunity for the government to ensure domestic climate risk disclosures are consistent with expectations of global standards bodies such as GHG Protocol, SBTi and ISO. This would require the government to work in partnership with New Zealand businesses on the issue, thereby enabling it to take an active role in some of these standard setting forums and act on behalf of New Zealand businesses and all New Zealanders.

To start, we outline here four initial areas for cooperation.

2.2 Work with business and local government to provide greater clarity on short and long-term direction on adaptation, by also considering nature-based solutions to adaptation

We welcomed the introduction of the National Adaptation Plan (NAP) last year but noted it does not provide sufficient certainty for planning and decision-making over longer timeframes. Nor does the NAP provide any clarity over who pays. We need urgent and clear policy direction on how we will prepare ourselves for natural disasters in the shorter term (reactive adaptation), and how we will become more resilient over longer time horizons as climate-related hazards become more intense and more frequent (proactive adaptation).

We also note that solutions to adaptation must consider the role of natural capital.

Nature-based solutions – large-scale coastal and freshwater wetland restoration, riparian planting, the re-wetting of peatlands, and the establishment of permanent indigenous forests in erosion-prone areas – are often cheaper and more effective over the long-term than hard infrastructure, like seawalls. They also deliver significant co-benefits by removing more carbon from the atmosphere, providing habitat for native species, improving water quality, and creating employment and recreational opportunities.

We also have a strong interest in ensuring managed retreat, and other climate adaptation measures that support improved biodiversity outcomes. Hard protection adaptation measures (e.g. seawalls) risk causing significant damage to coastal ecosystems, whereas nature-based solutions, like restoring coastal wetlands, can protect coastlines whilst benefitting biodiversity. Our species and ecosystems may also need to be able to retreat to respond to a changing climate.

New Zealand's Emissions Reduction Plan, National Adaptation Plan, and *Te Mana o te Taiao - Aotearoa New Zealand Biodiversity Strategy* all commit the government to prioritising nature-based solutions in regulation, policy, and planning. However, to date, this commitment has not been backed-up by action.

We **recommend** the incoming government:

- works with SBC and CLC to accelerate this critical work through the Climate Adaptation Bill and other related legislation.

The recent extreme weather events have shown that we need to significantly strengthen our preparedness for an increasing amount of severe weather events. A role government can play is enabling cross sector planning and taking a more integrated view of resilience investment for a different future.

The IPCC notes, “there are important interactions between mitigation and adaptation policies and their implementation”. (See **Appendix 1** for the full list of observations the IPCC makes about mitigation and adaptation in relation to Australasia.)

The IPCC highlights the need for understanding the options for dealing with adaptation, understanding the complexity, managing the uncertainty, and increasingly shifting from reactive to pre-emptive implementation while maintaining the focus on mitigation.

We **recommend** the incoming government:

- Works with SBC and CLC members, in particular the SBC Adaptation Working Group, to accelerate planning and action for climate adaptation, which should include consideration for nature-based solutions to adaptation.

2.3 Urgently review the size and scope of public funding to support climate change adaptation

The most recent New Zealand Government budget included a Summary of key Climate Emergency Response Fund (CERF) initiatives, including:³

“The government is also looking to extend the scope of the CERF to fund measures that support climate change adaptation in future Budgets, including through the government’s first National Adaptation Plan.... The next review of the size of the CERF is likely to be in the Budget Policy Statement for Budget 2023. At that time, we expect to roll out another year of the Fund so that it extends to cover the 2026/2027 financial year.”

We recognise there are different views on where additional climate adaptation funding should reside – for example, with the newly established Natural Hazards Commission in a separately administered fund. We are agnostic on where the fund resides, but **recommend**:

- The size and scope of public funding to support climate change adaptation is urgently reviewed and new funding is made available to support climate change adaptation in the near future.

We also recognise the vital role the private sector will play in climate adaptation, managed retreat and increased climate resilience. For this reason, we **recommend** the incoming government:

- Works with SBC and CLC members, in particular the SBC Adaptation Working Group, to clarify the role business will play in New Zealand’s climate adaptation, including how it will be financed.

³ New Zealand Treasury Wellbeing Budget 2022 A Secure Future 19 May 2022

2.4 Implement the Infrastructure Commission's recommendations on strengthening resilience to shocks and stresses⁴

Many of the references to adaptation in the NAP are high level and longer term. We note that the Infrastructure Commission's 30 year (2022-2052) *New Zealand Infrastructure Strategy* (Rautaki Hanganga o Aotearoa) focuses on climate change in its section on strengthening resilience to shocks and stresses. However, the Commission points back at the NAP. We urgently need clearer actionable items and a plan to follow through on them. The Infrastructure Commission should have a role advancing the issue.

The Infrastructure Commission's current relevant recommendations are (See **Appendix 2** for a full list):

- #25: Increase the resilience of critical infrastructure
- #26: Improve infrastructure risk management by making better information available
- #27: Prepare infrastructure for the impacts of climate change
- #28: Support the security of supply of essential materials, goods and services to build, operate and maintain infrastructure

We **recommend**:

- The Infrastructure Commission's recommendations on strengthening resilience to shocks and stresses are implemented with urgency.

2.5 Partner with business to take immediate action in areas already impacted by climate change

While this long-term work is going on, New Zealand has recently undergone some significant climate events, including flooding in Westport, Marlborough, Nelson, Auckland, Northland, Coromandel, East Cape, and Hawkes Bay. We understand the government is planning to utilise some of these recent events to pilot some accelerated actions on climate adaptation in partnership with local authorities.

SBC is interested in utilising its network of companies to participate in these pilot partnerships to accelerate climate adaptation action, and to learn from these pilots for future work.

We **recommend** the incoming government:

- Works with the SBC and CLC members, in particular the SBC Adaptation Working Group, to identify areas for collaboration in urgent climate adaptation action.

⁴ <https://media.umbraco.io/te-waihanganga-30-year-strategy/mrtiklv/rautaki-hanganga-o-aotearoa.pdf>

Recommendation 3: Accelerate transport decarbonisation in light vehicles and freight fleets

Key recommendations

- 3.1 Implement actions to accelerate decarbonisation of light passenger travel through electrification and mode shift, with a particular focus on charging infrastructure capacity and alignment with EU standards
- 3.2 Implement actions to decarbonise heavy freight through optimisation of decarbonisation options, fuel switching and mode shift
- 3.3 Prioritise investment in low and zero emissions rail and coastal shipping, two key sectors for enabling freight mode shift
- 3.4 Develop and implement a strategy to decarbonise aviation

The transport sector represents 17% of New Zealand's emissions and is low hanging fruit for decarbonisation.

SBC and CLC have been working with businesses and the government on practical steps for accelerating the transition of the light and freight fleets to low carbon.

In the light passenger sector, SBC is a member of the Clean Car Sector Leadership Group, which is focused on removing barriers to the uptake of electric vehicles and other zero carbon technologies, including hydrogen. A particular focus has been on a public-private approach to rolling out charging infrastructure. We would like to see this work continued and accelerated in the next term of government.

We acknowledge light and commercial electric vehicles require resilient roading infrastructure, which must be invested in alongside a greater focus on active and public transport.

We would like to see the introduction of standards, particularly the EU standards, so we don't create barriers to entry in our regulatory framework.

In the freight area, we have established the SBC Low Carbon Freight Group comprising of key stakeholders looking to decarbonise heavy freight through optimisation, fuel switching and mode shift. A segment of this work, to implement a New Zealand-wide low carbon freight offering, will require a public-private partnership to take it forward.

SBC and CLC are also working with the key players in the aviation sector for the development of sustainable aviation fuel (SAF).

We **recommend** the following three actions.

3.1 Implement actions to accelerate decarbonisation of the light passenger travel through electrification and mode shift, with a particular focus on charging infrastructure capacity and alignment with EU standards

SBC is a member of the Clean Car Leadership Group and has been advocating strongly for the government to prioritise EV charging infrastructure and take an equivalent approach to charging infrastructure (including the backbone infrastructure) in a similar manner to which it did to the broadband roll-out in the 2010s. We recognise most of the specific infrastructure will be built and paid for by the private sector, and that the role of the government is threefold:

- ensuring the necessary regulatory framework is quickly put in place;
- ensuring the electricity transmission and distribution network has sufficient capacity to provide for the predicted increase in electricity demand; and
- providing partnership funding for remote and disadvantaged communities, as it currently does for the telecommunications network.

SBC welcomes the release of the National EV Charging Strategy and will provide specific comment on that in our submission. We agree with the broad approach as laid out in the five key elements of the Strategy, and welcome the opportunity to partner with the government to accelerate the roll-out of the necessary charging infrastructure for EVs in New Zealand, and to ensure the current strong progress on delivering renewable energy is supported to meet increases in future demand.

We acknowledge increasing the uptake of e-mobility, in all its forms, is only part of the solution when it comes to decarbonising transport. Active and public transport are imperative. Mobility as a service can also provide a useful alternative to private vehicle ownership.

As such, we also welcome the CERF funding of \$374.4m (through to 2025) for activities linked to mode shift and reducing light VKT. We expect some of this funding to be directed towards the development of a national public transport strategy,⁵ but we would like to see more urgency placed on this strategy, and for the necessary funding to be prioritised for the roll-out of EV charging infrastructure.

In particular, we **recommend** the strategy includes:

- Investigating the potential for public transport, walking, and cycling in rural and provincial areas. Careful consideration is required to ensure an equitable transition and that the impacts of the transition are not unduly borne by rural communities.
- Consideration for multiple power trains (e.g. Battery Electric Vehicles, Hybrid Electric Vehicles, Plug-in Hybrid Electric Vehicles, Fuel Cells Electric Vehicles).
- Mode-shift plans for inter-regional travel, including for regional passenger rail.
- An infrastructure plan, with clear timelines over which lower carbon and affordable transport options are introduced to enable businesses to plan for the transition, especially where delivery times are important.
- The role of shared mobility (e.g. car-sharing services).
- We welcome the recent Taxation (Annual Rates for 2022-23, Platform Economy, and Remedial Matters) Act, which removes Fringe Benefit Tax (FBT) when employers provide public transport, bicycles, electric bikes, scooters and electric scooters. We note, however, this exemption will only support those people whose employers choose to provide these benefits. Therefore, other policies will be required to support the uptake of active and electric transport of this nature.

⁵ As per ERP Action 10.1.2

With regards to light EVs, we note key major barriers that are holding back uptake:

- No clear strategy for battery charging on 4-lane state highways (a particular issue for HVs).
- Purchase prices for EVs / hybrids continue to be higher than ICE equivalents.
- The availability and type of vehicle models in New Zealand is relatively limited.

To address these barriers, we **recommend**:

- Working with SBC on the implementation of the National EV Charging Strategy.
- Maintaining the Clean Car Discount and Clean Car Standards⁶.
- Implementing financial incentives to accelerate light EV uptake:
 - Extending the Clean Car Discount threshold to cover light commercial vans.
 - Changing the methodology for calculating the fringe benefit tax for corporate BEVs and employee EV charging.

3.2 Implement actions to decarbonise heavy freight through optimisation of decarbonisation options, fuel switching and mode shift

SBC and CLC support the development and implementation of a National Freight and Supply Chain Strategy specifically around addressing the need and plans for long-term infrastructure investments and policy to support the decarbonisation of heavy freight.

A concerted, coordinated approach at the central government level is required, rather than a piecemeal local or regional plan, or leaving it to the private sector to work on in a silo. We see that much of the detail of freight sector decarbonisation will be contained in that Strategy. Freight supply chain resilience must be planned for alongside mitigation efforts.

A National Freight and Supply Chain Strategy with a focus on multi modal shift would enable the freight sector to develop greater resilience to climate change ensuring the ongoing resilience of national supply chains.

We **recommend** the following measures to be explicitly considered in developing the Strategy:⁷

- Optimising freight routes, logistic nodes, equipment, and vehicles. The SBC Low Carbon Freight Group is exploring collaborations aimed at establishing a low carbon freight offering, building a freight decarbonisation knowledge toolkit to help build business cases and enabling mode shift. We are currently developing a partnership with government to take this work forward in partnership with the private sector.
- Examining opportunities for the collection and better use of data to improve efficiencies in the freight system. Subject to competition law considerations, the SBC Low Carbon Freight Group could play a role in the effective data gathering and use of data to improve efficiencies in the freight system. We would welcome the chance to discuss this matter further.

⁶ In the short to medium term, we support settings for these policies being calibrated to encourage lower emissions ICE vehicles, like hybrids. This will be necessary to reduce emissions from the light vehicle fleet in an affordable way for consumers, while zero emissions technology is widely adopted (including through a second-hand market).

⁷ These measures were also included in our submission to the ERP Discussion Document.

- Specifically mention the roles of biodiesel, renewable diesel, sustainable aviation fuel, green hydrogen, and BEVs in the freight sector transition. The SBC Low Carbon Freight Pathway⁸ showed alternative fuels and electrification need to, and can feasibly, play a major role in freight sector decarbonisation.
- Be underpinned by evidence on the demand for mode shift to rail and/or coastal shipping, and the capacity available to meet that demand.
- Clearly articulate the vision on how different transport modes can integrate across different routes, identifying barriers and highlighting opportunities.

3.3 Prioritise investment in low and zero emissions rail and coastal shipping, two key sectors for enabling freight mode shift

We support exploring mode-shift opportunities as part of the National Freight and Supply Chain Strategy, and we **recommend** that more analysis is undertaken to assess what a feasible path for mode shift would be over the next three carbon budgets. We note this analysis is currently missing and will require an investigation of the barriers facing the shift (including service pricing and availability), and how these barriers are expected to be removed over the next 5-10 years.

We also **recommend** the Strategy clearly articulates the investments required in rail and coastal shipping to deliver the desired mode-shift outcomes. This assessment of investments should link back to those announced in the New Zealand Rail Plan and for coastal shipping as part of the ERP, clearly identify the investment gap, and how this gap will be addressed.

We **recommend** the government actions the Commission's advice to introduce a target/mandate for renewable fuels for ships with policy level guidance and recommendations to support the domestic production, distribution and supply for those alternative fuels.

Finally, we **recommend** closer examination of the role of shipping, including international shipping, in reducing New Zealand's transport emissions. Domestic and international shipping could be a significant source of demand for low emission renewable fuels, such as biofuel and hydrogen. Therefore, it makes sense for these sources of potential demand to be factored into New Zealand's strategies for these future fuel sources.

We would welcome the chance to discuss the above in the context of the Freight and Supply Chain Strategy to ensure the freight pathway is feasible.

3.4 Develop and implement a strategy to decarbonise aviation

Decarbonising aviation is critical to the future prosperity of our economy as a globally connected market-based trading nation. This includes, but is not limited to, primary sector exports, the tourism sector, access to rapid healthcare needs, our universities' access to international students, and not least maintaining important social connections. Given the increased global focus and customer awareness of emissions embedded in products consumed, decarbonising aviation will provide broader benefits to New Zealand, its economy, and its exports, noting New Zealand's reliance on air travel to connect it and its products to the world.

⁸ <https://www.sbc.org.nz/wp-content/uploads/2022/07/Low-carbon-freight-pathway-report.pdf>

Aviation is difficult to decarbonise and will require investments in novel technologies and co-ordination amongst transport, energy, and tourism. A stand-alone strategy for decarbonising aviation is therefore required to avoid delays in investments in alternative fuels and sub-optimal outcomes across sectors.

We **recommend** an aviation strategy is developed with urgency. The strategy should include:

- Specific targets / pathways that reflect the dual operation of carrying both people and products, and address coordination with supporting energy infrastructure.
- Policy measures (e.g. a mandate) to enable SAF, coupled with affordability measures.
- Clear sustainability standards for new technologies and fuels, aligned with international standards (particularly in relation to feedstocks used for fuels).
- Recognition of SAF within ETS for voluntary purchases.
- Policies / regulations to promote the development of hydrogen aviation, especially enabling infrastructure and aircraft operating regulations.

Recommendation 4: Increase investment in infrastructure for decarbonisation and electrification

Key recommendations

- 4.1 Prioritise the completion of the New Zealand Energy Strategy and take a whole-of-system approach to complementary energy policies
- 4.2 Amend regulatory settings to enable regulated infrastructure to support the decarbonisation of the economy
- 4.3 Provide clear consenting pathways for energy infrastructure as part of the RMA reform
- 4.4 Implement policy measures to incentivise the uptake of distributed renewable technologies
- 4.5 Recognise the need for renewable energy certification

Key to New Zealand's decarbonisation is the electrification of many currently high emissions sectors. To do this, New Zealand urgently needs to complete its Energy Strategy, which sets out the pathway for moving the country to a low carbon energy sector. Importantly, the Energy Strategy has to be put into effect.

In addition to the Energy Strategy, we have identified a number of recommendations that would help clarify the government's policy direction with respect to investments in low-carbon infrastructure, while the long-term Energy Strategy is being developed (due in 2024).

Across Recommendation 3, risks to nature must be considered when forming policy related to, or investing in, new energy infrastructure.

4.1 Prioritise the completion of the New Zealand Energy Strategy and take a whole-of-system approach to complementary energy policies

Critical to the decarbonisation of New Zealand's energy system is the national Energy Strategy, which is set to be finalised by the end of 2024. This is a crucial document as it provides the overall architecture for the array of policies that sit below it.

We **recommend** an incoming government gives the Energy Strategy their highest priority so that all the detailed energy policies currently being worked on are complementary.

We also **recommend** the incoming government takes a whole-of-system approach to energy policy to ensure the objectives in the different policy papers are mutually enforceable rather than mutually exclusive. We note the state of evolution, the possibilities, and the expectations on each of electricity, natural gas, bioenergy, hydrogen and demand-side response are different yet interrelated. This approach will ensure strategies and policies like the Hydrogen Roadmap, the Bioeconomy Strategy and the Gas Transition Plan (all of which are also currently being worked on) connect to the broader strategy.

The Energy Strategy should provide clarity on the role that the government intends to play in the energy sector and the targets and principles it will apply in considering any major investment in the energy sector. The NZ Battery Project has been set up to provide comprehensive advice on the technical, environmental, and commercial feasibility of pumped hydro and other potential energy storage projects.

This has created a great deal of uncertainty for investors because of the scale (and influence) of the possible projects and the role of the government as an investor. The government's investment in the sector has the potential to chill private investments unless there is clarity early on of the government's intentions.

We **recommend** the incoming government:

- Provides clarity on its intentions around direct investment or other interventions in decarbonisation implementation
- Provides clarity on the role of gas in supporting the energy transition
- Follows through Market Development Advisory Group's (MDAG) work on price discovery⁹ in a renewables-based electricity system, with the expectation that stage three of their work will provide recommendations on how current market arrangements can be improved to provide greatest price certainty and adequate security of supply in the face of higher electricity demand and higher proportion of intermittent electricity generation.
- Ensures there are no barriers to any low carbon energy source or solution and that supporters of each source have the information on the others, so the economy is more likely to end up with a well optimised energy system.

4.2 Amend regulatory settings to enable regulated infrastructure to support the decarbonisation of the economy

The level of funding and the type of investments that can be made by regulated entities is heavily influenced by the regulatory regime, and more needs to be done to adapt New Zealand electricity regulation for a low-emissions future.

Specifically, members consider the current investment approval framework for large network infrastructure projects does not have strong enough criteria to consider lower emission investments – it is heavily weighted towards economic and engineering drivers. This is delaying transmission and distribution network upgrades and investments required for electrification (e.g. industrial sites). It is also delaying gas infrastructure upgrades.

Furthermore, to support the expected level of electrification across sectors, the capacity of the electricity transmission and distribution network will need to be significantly scaled up.

However, our regulatory regime uses past expenditure as a determinant of future cost by default, with an arbitrary cap on the uplift in allowable expenditure and heavy penalties for overspending. This approach to our investment settings is incompatible with the step change that is in front of the sector. Furthermore, the regulatory regime delays the timing of cashflow available to networks by indexing the regulated asset base (RAB) to inflation. An option here is for the Commerce Commission to give networks the option to un-index their RABs. This would result in the same recovery ultimately (NPV neutral), but it would allow for faster recovery allowing the right investments to be made at the right time. A clear policy directive to the Commerce Commission might be necessary to achieve the re-alignment that is needed between our regulated funding regime – which did not envision climate change – and the transition that is in front of the sector.

⁹ <https://www.ea.govt.nz/assets/MDAG-options-paper-final.pdf>

We **recommend** the incoming government:

- Adjusts the regulatory approach to overtly enable investment in transmission/distribution/distributed technology where there is uncertainty and adopt forward-looking drivers and flexibility in processes for fast electrification.
- Amend core infrastructure investment funding arrangements to recognise the emissions reductions that networks can enable alongside economic and engineering considerations. Similar considerations should also be given for upgrades to gas infrastructure to support the transition.
- Test the Commerce Commission's Input Methodology to determine if it is consistent with the scale of electricity transmission and distribution network investments required.

4.3 Provide clear consenting pathways for energy infrastructure as part of the RMA reform

The current consenting environment under the RMA adds costs and delays investment in renewable generation, and transmission and distribution networks. The current national direction does not address the full energy system cohesively (generation, transmission, distribution). It is currently uncertain how the RMA reform will address the complexity of the consenting system or reduce the consenting burden. The Natural and Built Environment Act (NBA) and the Natural Planning Framework (NPF) provide opportunity, but updated RMA tools are needed in the transition.

Furthermore, through its proposed consent duration limits, the draft NBA adds further investor uncertainty by creating:

- a competitive disadvantage for smaller scale hydro projects for which consent duration is limited to 10 years;
- a mismatch between the investment horizon and consent validity especially for infrastructure with economic life significantly higher than the maximum 35-year lapse period.

As part of the RMA reform, we **recommend**:

- Reviewing the RMA national direction to provide national policy and standards to facilitate (make permitted as far as possible) the full energy system – generation, transmission, and distribution. Transition this into a new National Planning Framework under the NBA.
- Ensuring any consent duration limits are consistent with the economic and physical lifetime of electricity generation, transmission, and distribution infrastructure. This means exclusion to the 10-year limit should include hydro generation of any scale, and that long-life transmission and distribution infrastructure requiring coastal permits are consented in perpetuity.
- Urgently consider options for introducing a transitional mechanism that will give effect to necessary consenting reforms before the NBA Bill becomes an official Act, which can take many years. One option is to advance the National Planning Framework that would integrate the policy direction on the new consenting rules.

4.4 Implement policy measures to incentivise the uptake of distributed renewable technologies

Current electricity market settings are not wholly supportive of distributed energy resources (DER) and demand side management solutions from all parties. There is a need to maximise the capability and use of energy flexibility through our energy system to support an increased reliance on renewables and to optimise our infrastructure for efficiency. The barriers stem from both market settings and the Commerce

Commission's regulatory price methodologies, noting that the Commerce Commission's current statement of intent does not mention the environment, decarbonisation, or greenhouse gas emissions at all.¹⁰ Changes to the regulatory price methodologies should be done in a way that keep distributed energy resources outside of regulated asset bases.

Although standards for smart EV charging are currently missing, we are encouraged by EECA's recent consultation paper on this issue.¹¹

We **recommend**:

- The Commerce Commission's price pathway methodology is reviewed so it does not hold up urgent additional investment for electrification of innovation in deployment of distributed energy resources for demand management.
- The Electricity Authority implements the recommendations of IPAG and the Flexforum.¹² That work identified options the Authority (and in some cases the Commission) could take to strengthen the equal access framework to further promote competition, reliability, and efficiency in the provision of electricity and electricity related services, including network support services.
- Funding a pilot of flexibility services and market arrangements building on the work of the Flexforum
- Mandating smart chargers for EVs, as per EECA consultation on options, to provide off-peak charging and demand flexibility at home¹³

4.5 Recognise the need for renewable energy certification

Businesses wishing to reduce their Scope 2 energy emissions to zero need a mechanism for evidencing they are procuring 100% renewable energy from the market. This can be achieved via a scheme designed to support certification of renewable energy products with international standards (e.g. ISO and GHG protocols).

While different mechanisms for purchasing renewable energy are emerging, there is a need for a robust, transparent and standardised approach to both certifying renewable energy production and providing a chain of custody for the associated sale and clearance of RECs, i.e. demonstrating that RECs are routinely and transparently retired to avoid double counting and to boost market confidence.

Currently in New Zealand, one private system (Certified Energy) provides renewable energy certification to international standards via its development and operation of the New Zealand Energy Certificate System (NZECS). To date, Certified Energy has received no recognition or endorsement nor regulatory oversight from government agencies. There is an active discussion about whether NZECS certificates meet standards of additionality, i.e. an undertaking that the proceeds from underwriting certificates will lead to additional renewable energy and not lead to greater use of fossil fuels. The best pathway for reporting voluntary reductions and supporting impactful renewable energy procurement would be to ensure certification is working whether it is the NZECS scheme or an alternative such as the I-REC standard.

¹⁰ Commerce Commission Statement of Intent Our Approach for 2020–2024. See

https://comcom.govt.nz/_data/assets/pdf_file/0014/222305/Statement-of-Intent-20202024.PDF

¹¹ <https://www.eeca.govt.nz/about/news-and-corporate/consultations/improving-the-performance-of-electric-vehicle-chargers/>

¹² Innovation and Participation Advisory Group Advice on creating equal access to electricity networks April 2019 See <https://www.ea.govt.nz/development/advisory-technical-groups/ipag/final-advice/>

¹³ <https://www.eeca.govt.nz/assets/EECA-Resources/Consultation-Papers/EV-charging-Green-Paper-8-August-2022.pdf>

There is also a need for more education on renewable energy certificates and what zero carbon certification means in the context of Scope 2 emissions reporting and consumer facing claims.

We **recommend** the incoming government:

- Recognises the need for renewable energy certification scheme(s) (e.g. by considering the merits of publishing market-based emissions factors for electricity, alongside location-based ones as is currently done).

Recommendation 5: Maintain focus on reducing agricultural emissions

Key recommendation

- 5.1 Reduce agricultural emissions through the Centre for Climate Action joint venture
- 5.2 Identify tools and support available to help farmers transition to a low emissions economy and adapt to the changing climate
- 5.3 Promote a nature-based solutions (NBS) approach to assessing the environmental impacts from agricultural practices

New Zealand is unusual in the OECD for the scale of its agriculture-related emissions (mainly biogenic methane and nitrous oxide) which amount to over 50 percent of New Zealand's emissions. SBC and CLC are committed to accelerating the reduction of biogenic methane, nitrous oxide and carbon dioxide in agriculture.

The government will introduce pricing of on-farm agricultural emissions from 2025 under a farm-level split-gas levy system.¹⁴ When setting the levy prices, considerations must be given to the availability and cost of current and future on-farm mitigations (amongst other factors).¹⁵ A five-year price pathway for levy rates from 2025 has already been determined in order to provide farmers with the price certainty through to 2030.

Over the long term, on-farm mitigations to achieve the ambition of the Zero Carbon Act¹⁶ will require commercialisation of new technologies that currently require significant investment in their research and development. To support this, SBC has worked with some of New Zealand's leading companies to establish a new, much larger, public-private partnership to accelerate innovation and technology advancements which will increase the scale of agriculture emissions reduction.

5.1 Reduce agricultural emissions through the Centre for Climate Action joint venture

The Centre for Climate Action on Agricultural Emissions¹⁷ comprises an enhanced New Zealand Agricultural Greenhouse Gas Research Centre and a newly launched Centre for Climate Action Joint Venture (CCA JV) with industry. The CCA JV is:

“a public-private joint venture limited liability company focusing our investment and effort on tackling New Zealand's Agricultural emissions to meet reduction targets. Our role is to ensure all farmers have access to tools and technology to mitigate emissions whilst maintaining efficiency and profitability.”¹⁸

¹⁴ <https://www.rnz.co.nz/news/national/481197/government-makes-changes-to-farm-level-emissions-pricing-plan>

¹⁵ <https://environment.govt.nz/assets/publications/Pricing-agricultural-emissions-report-under-section-215-of-the-CCRA.pdf>

¹⁶ The Act sets the target of reducing biogenic emissions by 24%-47% by 2050 compared to 2017.

¹⁷ New Zealand Agricultural Greenhouse Gas Research Centre (nzagrc.org.nz)

¹⁸ Wayne-McNee_NZACCC23.pdf (nzagrc.org.nz)

Our premise is that solely relying on existing technologies and practices to achieve the lower bound (24%) of biogenic methane emissions reductions as required by the Zero Carbon Act will be a risky strategy.

We therefore welcome the establishment of the Centre for Climate action on Agricultural Emissions,¹⁹ and the CERF allocation of \$338.7 million over four years to accelerate research and development of new tools and technologies to on-farm emissions. We also note the need for further policy support to implement already known mitigation solutions in agriculture (For example EcoPond and coated urea).

We **recommend** the incoming government:

- Maintain its support for the Centre for Climate Action on Agricultural Emissions and the Centre for Climate Action Joint Venture to bend the curve on agriculture emissions.
- Provide further policy support to accelerate the commercialisation and implementation of already developed solutions.

5.2 Identify tools to help farmers transition to a low emissions economy and adapt to the changing climate

As well as the significant R&D support for new technologies, the sector requires support to help farmers prepare for the impending on-farm emissions pricing, particularly through investments in infrastructure, IT systems and people capability. Whatever mechanisms are implemented, enabling and supporting farmers to understand their own reduction opportunities for their farms is critical to helping them improve reductions and resilience.

On-farm offsetting/insetting is legitimate mitigation, albeit a short-term solution. If it were decided that farm offsetting/insetting were to be included into the ETS, we would rapidly need to accelerate technology to rapidly, robustly, and accurately measure sequestered carbon.

We **recommend** the incoming government:

- Clearly identifies tools and support available to help farmers transition to a low emissions economy and adapt to the changing climate.

5.3 Promote a nature-based solutions (NBS) approach to assessing the environmental impacts from agricultural practices

We **recommend** the government pursue a nature-positive approach to agricultural emissions reductions, so that the natural crisis is tackled alongside the climate crisis. This would create a virtuous circle of co-benefits that amplifies any investment (see the nature-positive product loop in Annex 3).

The emissions benefits of nature-based solutions are beginning to be more quantifiable, with recent international research suggesting effective nature-based solutions could contribute 20% of the mitigations needed to keep global warming to under 1.5 degrees Celsius by 2050.

NBS support a farm system approach and have the potential to deliver a triple dividend: both gross and net emissions reductions, biodiversity gains and climate adaptation benefits.

¹⁹ <https://www.mpi.govt.nz/funding-rural-support/environment-and-natural-resources/centre-for-climate-action-on-agricultural-emissions/#:~:text=The%20Centre%20for%20Climate%20Action%20on%20Agricultural%20Emissions%20plays%20a,farm%20emissions%20to%20farmers%20quicker.>

New Zealand's food system must be redefined through the nature-positive lens, which in turn must reflect the diversity inherent in our system. No farm operates independently of each other. They are part of a community, a catchment and ultimately an interconnected agricultural system that succeeds because of all the component parts working together. It is finely balanced from both food production and biological systems perspectives.

We **recommend** the incoming government:

- Works in partnership with SBC members to determine a mechanism by which the value of on-farm NBS could be more formally recognised, e.g. benefits from predator-control, stock exclusion, wetland restoration etc.

Recommendation 6: Accelerate action to ensure a just transition

Key recommendations

- 6.1 Government to complete the Equitable Transitions Strategy in 2023 and work with business and other stakeholders to ensure the Strategy is implemented

The impacts of transitioning to a zero carbon economy will not fall evenly, and some regions, communities and sectors will be impacted more than others. We are also conscious the transition is happening at a time when many New Zealanders are facing compounding and complex economic challenges.

Our members have a shared vision that puts people at the heart of what we do, so that business, nature importantly communities can thrive in this rapidly changing world.

We support bold ambition in the pursuit of a just transition that acknowledges those businesses and communities that will be adversely affected by the pathway before us. We also support delivery of a strategy that will deliver a fair, equitable and inclusive transition to a sustainable, climate-resilient and zero carbon New Zealand.

Achieving equity in the transition is central to creating social licence for an ambitious and enduring pathway to a zero carbon future for Aotearoa, but critically also recognises the very real human impact that comes hand in hand with the task ahead.

SBC and CLC therefore strongly support the recommendations of the Climate Change Commission in this area.

An Equitable Transitions Strategy is currently being developed to ensure that our transition to a low emissions future is fair and inclusive. We understand this may be released in mid-2023.

The Emissions Reduction Plan lists actions to be taken in support of the Strategy, all of which we support.

As we noted in our submission on the Emissions Reduction Plan:

- i. There must be a process to *implement* the Strategy. Implementation should be inclusive and ensure all New Zealanders – including business and people – have a say in the policies, plans and actions put in place to support vulnerable communities and those most impacted by the transition.
- ii. There must be a method of monitoring and reviewing the impacts of policy on the equitable transition. This could build on existing frameworks applied to measure wellbeing such as the *Living Standards Framework* and *He Ara Waiora*.
- iii. SBC and CLC members are committed to climate response (mitigation *and* adaptation) and the need for a just transition. We wish to work with government to develop business-to-business solutions to help ensure equity in the transition across the supply chain, e.g. through scalable prototype projects to:

- build capability within companies across the supply chain to transition toward lower emissions business models and manage workforce and other transition implications; and
- develop proactive skills and employment pathways to keep displaced workers connected to decent, meaningful work.

Fundamental to this work is the need to develop a shared vision which all interested and affected stakeholders can contribute to, and work towards.

If we are to secure a zero carbon future that is fair and equitable for all, we must adopt measures that will ensure policies put adversely impacted people and communities at the very heart of the country's climate and resilience building action.

Recommendation 7: Decarbonise industrial processes (especially process heat)

Key recommendation

- 7.1 Decarbonise industrial processes (especially process heat) through the public-private action resulting from the GIDI fund

We support the acceleration of the energy industry switching to low-emissions fuels for process heat and the uptake of energy efficiency measures. We believe that on a \$/tCO₂e basis, the most cost effective and time efficient change that we can make is in process heat. In our previous submission on the Emissions Reduction Plan discussion document,²⁰ we supported the continuation of the Government Investment in Decarbonising Industry (GIDI) funding, due to (i) its pivotal role in accelerating process heat decarbonisation through its co-funding, and (ii) its role as a partner that can work with end users to help implement customised solutions, while also helping ensure these solutions are consistent with each other when viewed as a whole for the sector.

The GIDI fund is supported by the Climate Emergency Response Fund (CERF), which in turn is funded by the ETS.²¹ We continue to believe that public support is needed to decarbonise process heat at the pace required to meet carbon budget, and this should come from ETS-recycled revenue. GIDI has been the mechanism through which this has been done to date – it has performed well, and the expansion proposed to its programme directly reflects our previous recommendations, as described below. On this basis, it makes sense to continue support for GIDI as planned via CERF, and we urge the government to do so.

Specifically, in our submission on the ERP, we noted the fund's focus needed to be broadened to cover not only mid-sized users, but also large (i.e. those requiring conversions upwards of \$5m to support economically) and small ones (who cannot easily afford to engage experts to support the development of a project, and are less able to access GIDI).

Specifically, we **recommended** GIDI funding should be extended as follows:

- Directly engage with large users
- Assist smaller users with less stringent application criteria more suited to the scale of SMEs.

We are encouraged to see these recommendations reflected in the expanded GIDI fund as published by EECA,²² and the commitment to allocate via CERF \$652.3m on funding further decarbonisation of process heat and implementation of supporting policies through to 2025/26.

We **recommend** the incoming government follow through with the commitment above to expand GIDI scope and funding.

²⁰ <https://www.sbc.org.nz/wp-content/uploads/2022/07/SBC-CLC-ERP-discussion-document-response-Final-24-November-2021.pdf>

²¹ GIDI is funded by the CERF which is set up to recycle proceeds from emitters to climate mitigation. NZ Treasury states: "At its establishment in late 2021, the CERF was set up with funding equivalent to the available cash proceeds from the New Zealand Emissions Trading Scheme (ETS) over the four years from 2022/23 to 2025/26." See here.

²² <https://www.eeca.govt.nz/co-funding/industry-decarbonisation/about-the-government-investment-in-decarbonising-industry-fund/>

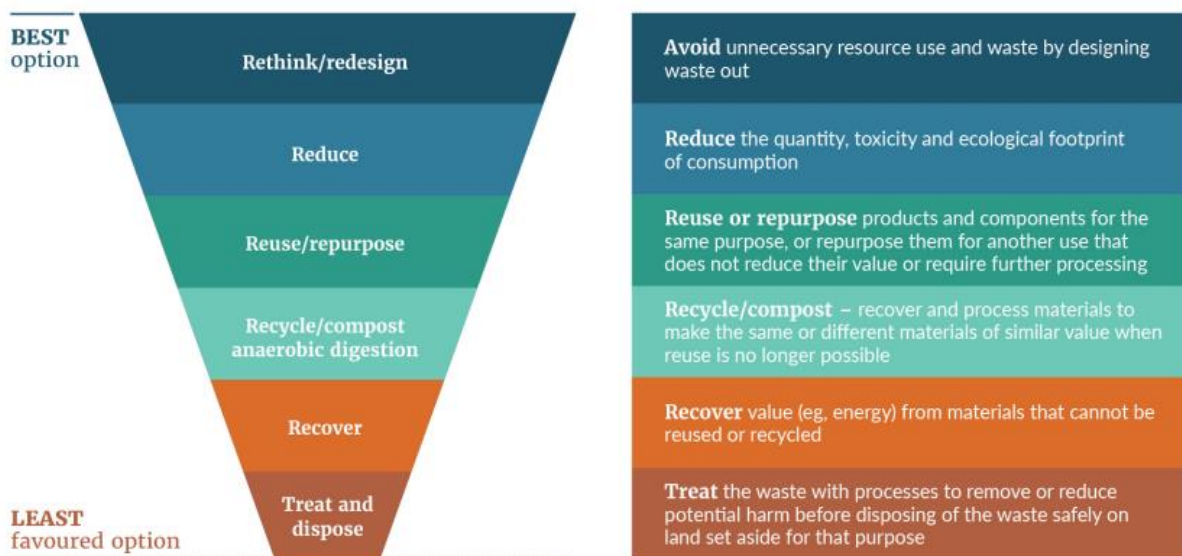
Recommendation 8: Reduce emissions from waste and the built environment

Key recommendations

- 8.1 Implement actions to support circular economy initiatives
- 8.2 Improve waste recovery, recycling rates and waste tracing
- 8.3 Provide policy direction on organic waste as part of the Bioeconomy Strategy
- 8.4 Reduce emissions and waste from the built environment through necessary amendments to the building code, requiring embedded carbon measurements and undertaking a large-scale retrofit programme

Our recommendations for waste reflect the prioritisation of actions through the waste hierarchy (figure below). The most desirable actions – supporting the first circular economy principle – are at the top of the hierarchy and are aimed at avoiding waste generation in the first place. In the middle are actions for keeping materials circulating in the economy, in line with the second circular economy principles of reducing, reusing, recycling or recovering. At the bottom are actions that are least desirable, notably destruction and disposal to landfill.

Figure 1 – Waste hierarchy



Source: Ministry for the Environment

8.1 Implement actions to support circular economy initiatives

Circular economy initiatives will have a significant role to play in creating a systemic solution to climate action by reducing the demand on raw materials and introducing new ways of making, using and disposing of items. However we note the lack of necessary infrastructure and the lack of funding for circular opportunities are significantly affecting the rate at which product and material use can become circular. We also note that the adoption of Module D approach in Life Cycle Assessments (LCA) incentivises investment in circularity-focused initiatives.

We **support** the development of a Circular Economy Strategy (due in 2024) and ask the government to work in partnership with SBC in its development.

8.2 Improve waste recovery, recycling rates and waste tracing

There are a number of barriers that limit opportunities for waste recovery in New Zealand including:

- Insufficient and decentralised collection limiting opportunities to increase recovery rates and establish onshore recycling
- Lack of MfE co-funding for some types of materials / products (e.g. lithium-ion batteries)
- Underdeveloped secondary markets for recycled goods
- High cost of recycling schemes for offshore recycling, such as battery recycling
- Raw materials in some products still being heavily plastic-based, making them difficult to recycle or compost

We **recommend** the incoming government works with the private sector to develop an approach to standardisation of collection systems that takes into account the range of collection systems in operation. We also reiterate our previous recommendation to develop national standards for waste collection, inclusive of material type for collection and collection receptacles.

8.3 Provide policy direction on organic waste as part of the Bioeconomy Strategy

We reiterate our previous assessment that opportunities for organic waste diversion should be assessed as part of New Zealand's Bioeconomy Strategy.

We support the development of a Bioeconomy Strategy (due in 2024), and ask the government to consider the following **recommendations** as the strategy is being developed:

- Whether there are thermal/electrical loads around high waste areas.
- Whether compost should be prioritised over other organic disposal methods.
- Whether AD/pyrolysis be utilised to provide inputs into energy systems, including local energy hubs for large industries and liquid fuel consumption market, including petrol, diesel and LPG.

8.4 Reduce emissions and waste from the built environment

The built environment, including infrastructure, contributes 20% of New Zealand's emissions. There are huge opportunities to reduce demand for energy, thereby reducing the need to generate additional power. Improving the energy efficiency of NZs buildings reduces costs of living, improves the resilience of the grid, improves health of Kiwi whānau, lowers carbon emissions, and helps provide energy for other sectors that need it, such as electric vehicles.

There are opportunities to reduce the environmental impact of the construction and property sectors by:

- (i) addressing the carbon footprint of construction materials (embodied carbon)
- (ii) reducing carbon created from running our buildings (operational carbon), and
- (iii) reducing construction waste.

We **recommend** the following actions:

- For the purposes of reducing the carbon footprint of construction material:
 - Require embodied carbon measurement at the building consenting stage from 2025, as proposed by the Building for Climate Change programme.

- From 2026, set out reductions in embodied carbon amounts and future timeframes, including a 2030 goal of 40% less embodied carbon.
- Provide subsidies for companies to get EPDs.
- Phase out 'forever chemicals'.²³ Consider introducing levies to take back some construction material (e.g. paint). The levies should be used to fund logistics and remanufacture.
- Provide support to develop robust logistics plans to move materials around the country.
- For the purposes of reducing operational carbon:
 - Improve the energy efficiency of buildings and homes in three changes to the building code, 2025, 2028 and the early 2030s, as set out in the building for climate change programme.
 - Amend the building code to require energy labels on buildings and homes at point of sale, making it transparent which homes and buildings are more energy efficient and driving down energy and carbon emissions.
 - Undertake a large scale retrofit programme to improve the energy efficiency and health of 200,000 homes, improving resilience and reducing the peak load of the grid in winter.
- For the purposes of reducing construction waste:
 - Amend the building code to require site waste management plans when homes or buildings are being constructed.
 - Move ahead with requiring site waste management plans in the building code.
 - Prioritise front end design that is resource-efficient and durable to reduce the generation of waste in the first place.
 - Incentivise modern methods of construction, with more use of preconstructed elements and off-site manufacture.
 - Incentivise imported materials with lower whole-of-life impacts than imported alternatives, as assessed by credible third-party sustainability certification.
 - Develop regional construction waste recycling facilities. These are in place in Auckland and Christchurch but are needed in at least four other locations nationally.
 - Require that the buildings government builds lead by reducing waste to landfill.
 - Support BIM modelling to give a list of materials used in a building that are recyclable, giving an asset value to these.
 - Support R&D through trials and survey work on better materials to use in construction.
 - Prioritise design-out waste options, whereby products are designed so they last longer and do not end up at landfills. As part of this, develop options to incentivise greater product stewardship.

²³ This is an informal term used for chemicals that do not break down in the environment.
<https://www.theguardian.com/environment/2022/feb/08/what-are-pfas-forever-chemicals-what-risk-toxicity>

Recommendation 9: Implement a national sequestration strategy that protects nature

Key recommendation

- 9.1 Develop a national sequestration strategy that recognises the environmental, social and economic benefits of a well-balanced use of sequestration as a mitigation tool

Sequestration activities and policies related to sequestration ultimately reflect the trade-off made within an economy between carbon offsetting and direct emissions reductions. An optimal trade-off requires a thorough consideration of the wider impacts linked to the use of resources that enable sequestration, both in monetary terms (e.g. land used for agricultural production) and non-monetary terms (e.g. social and biodiversity impacts). These considerations point to the urgent need to develop a national sequestration strategy that identifies opportunities for nature-based sequestration, assesses alternative uses of resources, and balances choices against the need to value and protect our natural capital.

To date forests have been central to achieving sequestration in New Zealand, and we understand they will continue to play an important role in achieving the 2050 net zero target. However, this role should be balanced against alternative uses of land and the needs of a bioeconomy in the all-energy strategy. Ultimately, our approach to land use should aim to deliver nature-positive products (see Appendix 3) by decoupling negative ecological impacts while ensuring rural communities are resilient and thriving.

The role of forests should also be balanced against the need to value and protect nature. We note the increasing momentum and expectations related to the Task Force for Nature Related Disclosures and the inextricable links to climate. The new strategy should ensure the necessary alignment, assistance, and prioritisation is in place to facilitate effective management of natural capital alongside climate priorities.

We reiterate our previous assessment²⁴ that exotic afforestation does not deliver many of the co-benefits that indigenous forests do, including for native biodiversity. The focus should therefore remain with permanent indigenous forests as the end target, while also recognising the merits of a mixed-model approach to forestry programmes as we transition to this target.

In 2022, the government consulted on excluding permanent exotic forests from the ETS, and following the consultation, Cabinet has made final decisions on this proposal and agreed to redesign the permanent forestry activity to better support the government's objectives for forestry.²⁵ We support the government's commitment to maintain effective incentives for planting new forests of the right type and for the right purpose.

We also note the distinction between forestry and forests. Native biodiversity provides benefits beyond carbon sequestration. We support the pursuit of mitigation policies that align with and support the delivery of the New Zealand biodiversity strategy and the NPS on biodiversity. A national sequestration strategy should consider these wider natural ecosystem benefits.

We also support the government's recently announced intent to develop an on-farm sequestration strategy in partnership with the primary sector. The strategy should combine on-farm and forestry-

²⁴ See SBC response to ERP Discussion Document

²⁵ <https://www.mpi.govt.nz/consultations/managing-exotic-afforestation-incentives>

specific objectives, and the protection of biodiversity, enabling opportunities for sequestration to be viewed in a holistic way.

We note there is currently a data gap for recent vegetation mapping in New Zealand. As with other recommendations in this briefing, we wish to raise the need for information to record and monitor progress. In this case, we recommend this vegetation mapping should be complete to facilitate accurate representation of current land use and sequestration opportunities.

We **recommend** the incoming government develops a national sequestration strategy that:

- Provides a representation of current land use and sequestration opportunities.
- Considers desired outcomes at a national level, taking account of a natural-system approach to emissions reduction and land-use that results in nature-positive products (see Appendix 3). The strategy should prioritise sustainable land use ('right activity right-place'), resilient and thriving rural communities, maintaining, and growing food and fibre exports, and be linked with the essential freshwater and indigenous biodiversity policy initiatives.
- Considers wider natural ecosystem benefits, with an aim to protect our natural capital.
- Addresses the ongoing need to offset carbon emissions and creates a balance across the environmental, social, and economic benefits of exotics and natives.
- Introduces financial reward / offsets for permanent native forestry.
- Recognises on-farm sequestration opportunities.
- Recognises offsets from reforestation projects and community restoration projects, e.g. wetland restoration.
- Considers interim approaches to sequestration recognition, to provide flexibility in the contractual system.
- Recognises our domestic and international commitments to protect and enhance biodiversity.
- Considers regulation that allows for inclusion of robustly proven sequestration pathways outside forestry and agriculture, to incentivise research and implementation of these options. We note, for example, accelerated, permanent recarbonisation of cement is emerging as a credible sequestration pathway.

Recommendation 10: Improve the disclosures framework

Key recommendations

- 10.1 Ensure climate scenario assumptions are used consistently for the purpose of climate disclosures
- 10.2 Improve guidance on the disclosure of Scope 3 emissions
- 10.3 Explore in partnership with business the introduction of Nature-related Financial Disclosures in the New Zealand market.

10.1 Ensure climate scenario assumptions are used consistently for the purpose of climate disclosures

The newly introduced regime for climate-related disclosures requires climate scenario analysis for the purpose of identifying climate-related risks.

It is currently unclear what assumptions should be used for such climate scenario analysis; this in turn creates the risk of inconsistent disclosures. We also note these assumptions can affect business risk profiles for the purpose of seeking insurance and investments.

NIWA currently holds valuable climate change risk data in spatial form, which can be shared with businesses for a fee. There is the case to make this dataset open source, to enable consistent and accurate disclosure of business exposure to climate risks.

We note some sectors, such as insurance, have consistent climate scenarios and are using them now. However, for the purpose of reporting there should be greater consistency across sectors.

We **recommend** the incoming government:

- Provides guidance on the type of assumptions that need to be considered in the three climate scenarios for climate risk assessment (i.e. SSP1-2.6, SSP2-4.5 and SSP 4-7.0), while recognising that some flexibility will need to be retained in the way organisations apply those assumptions given the specific context of their operations. We recommend this work is undertaken in partnership with SBC members.
- Makes NIWA spatial data on climate change risks publicly available.

10.2 Improve guidance on the disclosure of Scope 3 emissions

There is currently no strict definition of what Scope 3 emissions (in the context of the full value chain) might cover, and what might constitute a reasonable boundary for Scope 3 reporting. This creates the risk of misunderstanding sources of emissions and the potential for greenwashing.

Companies are seeking clarification on voluntary offsetting activity and how that activity can be reflected to consumers. They are also seeking a more formal mechanism to consider and apply embodied and operational carbon emissions as part of investment decision-making and GHG emissions reporting frameworks.

We **recommend** the incoming government:

- Clarifies via XRB that Scope 3 emissions are as outlined in GHG Protocol rules and ISO14064 standards.
- Considers making Government Carbon Neutral Programme Collateral resources available for others, to support other organisations to reduce Scope 3 emissions.
- Accelerates the issuance of Final Guidance for Voluntary Climate Change Mitigation and the update on the Interim Guidance. Ideally the guidance should include a pathway for businesses to use permanent native forestry as the basis for offsetting and describe that to consumers as carbon neutral or net zero.

10.3 Explore in partnership with business the introduction of Nature-related Financial Disclosures in the New Zealand market

New Zealand adopted the Kunming-Montreal Global Biodiversity Framework in December 2022. We note Target 15 of that Framework requires governments to implement measures to encourage businesses to understand, monitor and disclose their biodiversity-related risks, amongst other actions. We also acknowledge the work underway by the Taskforce on Nature-Related Disclosures (TNFD). The release of version v1.0 of the full framework for market adoption will be in September 2023.

New Zealand was one of the first countries globally to adopt mandatory climate-risk related disclosures for specified market participants. We **recommend** the incoming government:











- Explore in partnership with business the introduction of Nature-Related Disclosures in the Zealand market.
- Explore how any such disclosures would interact with the existing mandated climate-related risk regime in a way that recognises the interrelationship between climate and nature and can be practically adopted by business.

Appendix 1 – IPCC’s observations about mitigation and adaptation in Australasia

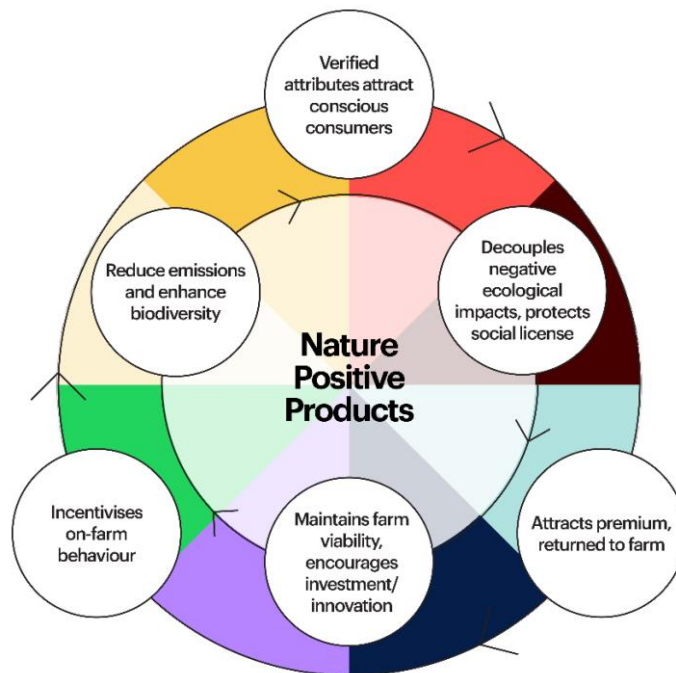
- Ongoing climate trends have exacerbated many extreme events (*very high confidence*).
- Climate trends and extreme events have combined with exposure and vulnerabilities to cause major impacts for many natural systems, with some experiencing or at risk of irreversible change in Australia (*very high confidence*) and in New Zealand (*high confidence*).
- Climate trends and extreme events have combined with exposure and vulnerabilities to cause major impacts for some human systems (*high confidence*).
- Climate impacts are cascading and compounding across sectors and socio-economic and natural systems (*high confidence*).
- Increasing climate risks are projected to exacerbate existing vulnerabilities and social inequalities and inequities (*high confidence*).
- Further climate change is inevitable, with the rate and magnitude largely dependent on the emission pathway (*very high confidence*).
- Climate risks are projected to increase for a wide range of systems, sectors and communities, which are exacerbated by underlying vulnerabilities and exposures (*high confidence*).
- There are important interactions between mitigation and adaptation policies and their implementation (*high confidence*).
- The ambition, scope and progress of the adaptation process has increased across governments, non government organisations, businesses and communities (*high confidence*).
- Adaptation progress is uneven, due to gaps, barriers and limits to adaptation, and adaptive capacity deficits (*very high confidence*).
- A range of incremental and transformative adaptation options and pathways is available as long as enablers are in place to implement them (*high confidence*).
- New knowledge on system complexity, managing uncertainty and how to shift from reactive to adaptive implementation is critical for accelerating adaptation (*high confidence*).
- Aboriginal and Torres Strait Islander Peoples and Tangata Whenua Māori can enhance effective adaptation through the passing down of knowledge about climate change planning that promotes collective action and mutual support across the region (*high confidence*).
- A step change in adaptation is needed to match the rising risks and to support climate-resilient development (*very high confidence*).
- Delay in implementing adaptation and emission reductions will impede climate-resilient development, resulting in more costly climate impacts and greater scale of adjustments (*very high confidence*).

Source: IPCC WGII Sixth Assessment Report, Chapter 11: Australasia

Appendix 2 – Relevant Infrastructure Commission recommendations

6.4.4. Recommendations			
No.	What	How	Who
25	Increase the resilience of critical infrastructure  HGI, BRN, DIV  2022-2026	To increase the resilience of critical infrastructure the government should: a. Develop a principles-based definition of critical infrastructure. b. Apply the definition of critical infrastructure consistently across the policy and legislative framework for resilience. c. Develop the criteria to set infrastructure criticality levels and then identify New Zealand's critical infrastructure. d. Clarify and strengthen requirements to identify minimum service levels for critical infrastructure in the event of an emergency. e. Adequately resource lead resilience agencies to carry out the functions required to support the delivery of critical infrastructure, on a consistent and long-term basis.	National Emergency Management Agency (NEMA), Department of Prime Minister and Cabinet (DPMC), Treasury
26	Improve infrastructure risk management by making better information available  PRA, RSN  2022-2026	To make better information available to support risk management steps should be taken to: a. Require regular disclosures of information about critical infrastructure preparedness and minimum service levels in an emergency. b. Resource the maintenance, upkeep and availability of research, information, data-sets and tools to support decision-making that enables resilience outcomes.	NEMA, DPMC, LINZ, Central Government
27	Prepare infrastructure for the impacts of climate change  CAT  2022-2031	To adapt to climate change, actions should be taken to: a. Finalise and adopt the infrastructure actions set out in the National Adaptation Plan. b. Support the provision of accessible, consistent and robust information on regional and local climate change impacts across the whole country.	MfE, Te Waihangā, Climate Change Commission
28	Support the security of supply of essential materials, goods and services to build, operate and maintain infrastructure  PRS  2022-2050	To increase the resilience of supply of essential materials, steps should be taken to: a. Incorporate into all risk-management planning for critical infrastructure a consideration of the security of supply of materials and goods required for the construction, operation and maintenance of infrastructure (including aggregate, bitumen, cement, concrete, steel and processed timber) and other essential goods and services. b. Require that regional councils, in conjunction with territorial authorities, undertake resource scans as part of their long-term planning processes and protect sites suitable for aggregate extraction, including through zoning.	MBIE, Ministry for Primary Industries, Central Government, Local Government
 Refer to Section 10			 Time

Appendix 3 – Nature positive products



Source: Silver Fern Farms

Appendix 4 – Full list of recommendations

TRANSITIONING KEY SECTORS	
Key recommendation	Detailed recommendations
1. Maintain and uphold the climate change response architecture	
1.1. Commit to maintain and uphold the climate change response architecture	We recommend the incoming government commit to maintaining and upholding the climate change response architecture.
2. Accelerate action on climate adaptation and resilience while maintaining momentum in reducing emissions	
2.1 Accelerate action on both emission reduction <i>and</i> proactive climate adaptation	We recommend the incoming government maintain a focus on both mitigation and adaptation as complementary tools necessary to reduce the negative impact of climate change on our country. We note a number of important linkages with regulatory work in train currently, such as the Commerce Commission's Input Methodologies review (and the extent to which it enables funding for network resilience), as well as the review of the vegetation management regulations.
2.2 Work with business and local government to provide clarity on short and long-term direction on adaptation, by also considering nature-based solutions to adaptation	<p>We recommend that:</p> <ul style="list-style-type: none"> • The government works with SBC and CLC to accelerate this critical work through the Climate Adaptation Bill and other related legislation. • Works with SBC and CLC members, in particular the SBC Adaptation Working Group, to accelerate planning and action for climate adaptation, which should include consideration for nature-based solutions to adaptation.

<p>2.3 Urgently review the size and scope of public funding to support climate change adaptation</p>	<p>We recommend:</p> <ul style="list-style-type: none"> • The size and scope of public funding to support climate change adaptation is urgently reviewed and new funding is made available to support climate change adaptation in the near future. <p>We recommend the incoming government:</p> <ul style="list-style-type: none"> • Works with SBC and CLC members, in particular the SBC Adaptation Working Group, to clarify the role business will play in New Zealand's climate adaptation, including how it will be financed.
<p>2.4 Implement Infrastructure Commission's recommendations on strengthening resilience to shocks and stresses</p>	<p>Their current recommendations are:</p> <ul style="list-style-type: none"> • #25: Increase the resilience of critical infrastructure • #26: Improve infrastructure risk management by making better information available • #27: Prepare infrastructure for the impacts of climate change • #28: Support the security of supply of essential materials, goods and services to build, operate and maintain infrastructure
<p>2.5 Partner with business to take immediate action in areas already impacted by climate change</p>	<p>We recommend the incoming government works with SBC and CLC members, in particular the SBC Adaptation Working Group, to identify areas for collaboration in urgent climate adaptation action.</p>

3. Accelerate transport decarbonisation in light vehicles and freight fleets	
3.1 Implement actions to accelerate decarbonisation of light passenger travel through electrification and mode shift, with a particular focus on charging infrastructure capacity and alignment with EU standards	<p>We recommend that the government:</p> <ul style="list-style-type: none"> • Develop a national public transport strategy, which should include: <ul style="list-style-type: none"> ◦ Investigating the potential for public transport, walking and cycling in rural and provincial areas. Careful consideration is required to ensure an equitable transition and that the impacts of the transition are not unduly borne by rural communities. ◦ Consideration for multiple power trains (e.g. Battery Electric Vehicles, Hybrid Electric Vehicles, Plug-in Hybrid Electric Vehicles, Fuel Cells Electric Vehicles), ◦ Mode-shift plans for inter-regional travel, including for regional passenger rail. ◦ An infrastructure plan, with clear timelines over which lower-carbon and affordable transport options are introduced to enable businesses to plan for the transition, especially where delivery times are important. ◦ The role of shared mobility (e.g. car-sharing services) • We welcome the recent Taxation (Annual Rates for 2022-23, Platform Economy, and Remedial Matters) Act, which removes Fringe Benefit Tax (FBT) when employers provide public transport, bicycles, electric bikes, scooters and electric scooters. We note, however, this exemption will only support those people whose employers choose to provide these benefits. Therefore, other policies will be required to support the uptake of active and electric transport of this nature. Address barriers to EV uptake by: <ul style="list-style-type: none"> ◦ Working with SBC on the implementation of the National EV Charging Strategy ◦ Maintaining the Clean Car Discount and Clear Car Standards ◦ Implementing the following financial incentives to accelerate light EV uptake: <ul style="list-style-type: none"> ▪ Extend the Clean Car Discount threshold to cover light commercial vans. ▪ Change the methodology for calculating the fringe benefit tax for corporate BEVs and employee EV charging.
3.2. Implement actions to decarbonise heavy freight through optimisation of decarbonisation options, fuel switching and mode shift	<p>We recommend the following measures to be explicitly considered in developing the National Freight and Supply Chain Strategy:</p> <ul style="list-style-type: none"> • Optimising freight routes, logistic nodes, equipment and vehicles. The SBC Low Carbon Freight Group is already exploring collaborations aimed at establishing a low carbon freight offering, building a freight decarbonisation knowledge toolkit, and helping build business cases and enabling mode shift. We are currently developing a partnership with the government to take this work forward in partnership with the private sector.

	<ul style="list-style-type: none"> Examining opportunities for the collection and better use of data to improve efficiencies in the freight system. Subject to competition law considerations, the SBC Low Carbon Freight Group could play a role in the effective data gathering and use of data to improve efficiencies in the freight system. We would welcome the chance to discuss this matter further. Specifically mention the roles of biodiesel, sustainable aviation fuel, green hydrogen, and BEVs in the freight sector transition. The SBC Low Carbon Freight Pathway showed that alternative fuels and electrification need to, and can feasibly, play a major role in freight sector decarbonisation. The strategy should be underpinned by evidence on the demand for mode shift to rail and/or coastal shipping, and the capacity available to meet that demand. Clearly articulate the vision on how different transport modes can integrate across different routes, identifying barriers and highlighting opportunities.
3.3. Prioritise investment in low and zero emissions rail and coastal shipping, two key sectors for enabling freight mode-shift	<p>We recommend that:</p> <ul style="list-style-type: none"> The National Freight and Supply Chain Strategy <ul style="list-style-type: none"> is underpinned by a thorough analysis of what a feasible path for mode shift would be over the next three carbon budgets clearly articulates the investments required in rail and coastal shipping to deliver the desired mode shift outcomes. The government actions the Commission's advice to introduce a target/mandate for renewable fuels for ships with policy level guidance and recommendations to support the domestic production, distribution and supply for those alternative fuels. A closer examination is undertaken of the role of shipping, including international shipping, in reducing New Zealand's transport emissions
3.4 Develop and implement a strategy to decarbonise aviation	<p>We recommend that an aviation strategy is developed with urgency. The strategy should include:</p> <ul style="list-style-type: none"> Specific targets / pathways that reflect the dual operation of carrying both people and products, and address coordination with supporting energy infrastructure Policy measures (e.g. a mandate) to enable SAF coupled with affordability measures Clear sustainability standards for new technologies and fuels, aligned with international standards (particularly in relation to feedstocks used for fuels) Recognition of SAF within ETS for voluntary purchases Policies / regulations to promote the development of hydrogen aviation, especially enabling infrastructure and aircraft operating regulations.

4. Increase investment in infrastructure for decarbonisation and electrification	
4.1. Prioritise the completion of the New Zealand Energy Strategy and take a whole-of-system approach to complementary energy policies	<p>We recommend that an incoming government give the Energy Strategy their highest priority so that all the detailed energy policies currently being worked on are complementary.</p> <p>We also recommend the government take a whole-of-system approach to energy policy to ensure that the objectives in the different policy papers are mutually enforceable rather than mutually exclusive. We note that the state of evolution, the possibilities, and the expectations on each of electricity, natural gas, bioenergy, hydrogen and demand-side response are different yet interrelated.</p> <p>We recommend that the incoming government:</p> <ul style="list-style-type: none"> • Provides clarity on its intentions around direct investment or other interventions in decarbonisation implementation • Provides clarity on the role of gas in supporting the energy transition • Follows through Market Development Advisory Group's (MDAG) work on price discovery in a renewables-based electricity system, with the expectation that stage three of their work will provide recommendations on how current market arrangements can be improved to provide greatest price certainty and adequate security of supply in the face of higher electricity demand and higher proportion of intermittent electricity generation. • Ensures that there are no barriers to any low carbon energy source or solution and that supporters of each source have the information on the others, so the economy is more likely to end up with a well-optimised energy system.
4.2. Amend regulatory settings to enable regulated infrastructure to support the decarbonisation of the economy	<p>We recommend that the incoming government:</p> <ul style="list-style-type: none"> • Adjusts the regulatory approach to overtly enable investment in transmission/distribution/ distributed technology where there is uncertainty and adopt forward-looking drivers and flexibility in processes for fast electrification. • Amend core infrastructure investment funding arrangements to recognise the emissions reductions that networks can enable alongside economic and engineering considerations. Similar considerations should also be given for upgrades to gas infrastructure to support the transition. • Test the Commerce Commission's Input Methodology to determine if it is consistent with the scale of electricity transmission and distribution network investments required.

4.3. Provide clear consenting pathways for energy infrastructure as part of the RMA reform	<p>As part of the RMA reform, we recommend:</p> <ul style="list-style-type: none"> • Reviewing the RMA national direction to provide national policy and standards to facilitate (make permitted as far as possible) the full energy system, including generation, transmission and distribution. Transition this into a new National Planning Framework under the NBA. • Ensuring any consent duration limits are consistent with the economic and physical lifetime of electricity generation, transmission and distribution infrastructure. This means that exclusion to the 10-year limit should include hydro generation of any scale, and that long-life transmission and distribution infrastructure requiring coastal permits are consented in perpetuity. • Urgently considering options for introducing a transitional mechanism that will give effect to necessary consenting reforms before the NBA Bill becomes an official Act, which can take many years. One option is to advance the National Planning Framework that would integrate the policy direction on the new consenting rules.
4.4. Implement policy measures to incentivise the uptake of distributed renewable technologies	<p>We recommend:</p> <ul style="list-style-type: none"> • The Commerce Commission's price pathway methodology is reviewed so it does not hold up urgent additional investment for electrification of innovation in deployment of distributed energy resources for demand management. • The Electricity Authority implements the recommendations of IPAG and the Flexforum.²⁶ That work identified options the Authority (and in some cases the Commission) could take to strengthen the equal access framework to further promote competition, reliability and efficiency in the provision of electricity and electricity related services, including network support services. • Funding a pilot of flexibility services and market arrangements building on the work of the Flexforum. • Mandating smart chargers for EVs, as per EECA consultation on options, to provide off-peak charging and demand flexibility at home.
4.5. Recognise the need for renewable energy certification	<p>We recommend that the incoming government recognises the need for renewable energy certification schemes(s), e.g. by considering the merits of publishing market-based emissions factors for electricity, alongside location-based ones as is currently done.</p>

²⁶ Innovation and Participation Advisory Group Advice on creating equal access to electricity networks April 2019. See <https://www.ea.govt.nz/development/advisory-technical-groups/ipag/final-advice/>

5. Maintain focus on reducing agricultural emissions	
5.1. Reduce agricultural emissions through the Centre for climate Action joint venture 5	<p>We recommend the incoming government:</p> <ul style="list-style-type: none"> • Maintain its support for the Centre for Climate Action on Agricultural Emissions and the Centre for Climate Action Joint Venture to bend the curve on agriculture emissions. • Provide further policy support to accelerate the commercialisation and implementation of already developed solutions.
5.2. Identify tools to help farmers transition to a low emissions economy and adapt to the changing climate	<p>We recommend the incoming government:</p> <ul style="list-style-type: none"> • Clearly identifies tools and support available to help farmers transition to a low emissions economy and adapt to the changing climate.
5.3. Promote a nature-based solutions (NBS) approach to assessing the environmental impacts from agricultural practices	<p>We recommend that the government works in partnership with SBC members to determine a mechanism by which the value of on-farm NBS could be more formally recognised, e.g. benefits from predator-control, stock exclusion, wetland restoration etc</p>
6. Accelerate action to ensure a just transition	
6.1. Complete the Equitable Transition Strategy in 2023 and work with business and other stakeholders to ensure the Strategy is implemented	<p>In developing and implementing the Strategy, we recommend that the government:</p> <ul style="list-style-type: none"> • Ensures that the implementation is inclusive, with all New Zealanders (including businesses) being allowed to have a say in the policies, plans and actions put in place to support vulnerable communities and those most impacted by the transition. • Ensures there is a method in place for monitoring and reviewing policies on equitable transition. This could build on existing frameworks applied to measure wellbeing such as the <i>Living Standards Framework</i> and <i>He Ara Waiora</i>. • Works with SBC and CLC members to develop business-to-business solutions to help ensure equity in the transition across the supply chain, e.g. through scalable prototype projects to: <ul style="list-style-type: none"> ○ build capability within companies across the supply chain to transition toward lower emissions business models and manage workforce and other transition implications; and ○ develop proactive skills and employment pathways to keep displaced workers connected to decent, meaningful work.

7. Decarbonise industrial process heat	
7.1. Maintain partnership with business to decarbonising process heat	<p>We recommend the government to follow through with the commitment to expand GIDI scope and funding.</p> <p>Specifically, we recommended GIDI funding should be extended as follows:</p> <ul style="list-style-type: none"> • Directly engage with large users • Assist smaller users with less stringent application criteria more suited to the scale of SMEs.
8. Reduce emissions from waste	
8.1. Implement actions to support circular economy initiatives	We support the development of a Circular Economy Strategy (due in 2024) and ask the government to work in partnership with SBC in its development.
8.2. Improve waste recovery, recycling rates and waste tracing	We recommend the government work with the private sector to develop an approach to standardisation of collection systems that takes into account the range of collection systems in operation. We also reiterate our previous recommendation to develop national standards for waste collection, inclusive of material type for collection and collection receptacles.
8.3. Provide policy direction on organic waste as part of the Bioeconomy Strategy	<p>We support the development of a Bioeconomy Strategy (due in 2024) and ask the government to consider the following recommendations as the strategy is being developed:</p> <ul style="list-style-type: none"> • Whether there are thermal/electrical loads around high waste areas. • Whether compost should be prioritised over other organic disposal methods. • Whether Anaerobic Digestion (AD)/pyrolysis be utilised to provide inputs into energy systems, including: <ul style="list-style-type: none"> ◦ Local energy hubs for large industries ◦ Liquid fuel consumption market, including petrol, diesel and LPG.

8.4. Reduce emissions and waste from the built environment	<p>We recommend the following actions:</p> <ul style="list-style-type: none"> • For the purposes of reducing the carbon footprint of construction material: <ul style="list-style-type: none"> ○ Require embodied carbon measurement at the building consenting stage from 2025 as proposed by the Building for Climate Change programme. ○ From 2026 set out reductions in embodied carbon amounts and future timeframes. Including a 2030 goal of 40% less embodied carbon. ○ Provide subsidies for companies to get EPDs. ○ Phase out ‘forever chemicals.’²⁷ Consider introducing levies to take back some construction material (e.g. paint). The levies should be used to fund logistics and remanufacture. ○ Provide support to develop robust logistics plans to move materials around the country. • For the purposes of reducing operational carbon: <ul style="list-style-type: none"> ○ Improve the energy efficiency of buildings and homes in three changes to the building code, 2025, 2028 and the early 2030s, as set out in the building for climate change programme. ○ Amend the building code to require energy labels on buildings and homes at point of sale, making it transparent which homes and buildings are more energy efficient and driving down energy and carbon emissions. ○ Undertake a large scale retrofit programme to improve the energy efficiency and health of 200,000 homes, improving resilience and reducing the peak load of the grid in winter. • For the purposes of reducing construction waste: <ul style="list-style-type: none"> ○ Amend the building code to require site waste management plans when homes or buildings are being constructed. ○ Move ahead with requiring site waste management plans in the building code. ○ Prioritise front end design that is resource efficient and durable to reduce waste generation in the first place. ○ Incentivise modern methods of construction, with more use of preconstructed elements and off-site manufacture.
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²⁷ This is an informal term used for chemicals that do not break down in the environment. <https://www.theguardian.com/environment/2022/feb/08/what-are-pfas-forever-chemicals-what-risk-toxicity>

	<ul style="list-style-type: none"> ○ Incentivise imported materials with lower whole-of-life impacts than imported alternatives, as assessed by credible third-party sustainability certification. ○ Develop regional construction waste recycling facilities. These are in place in Auckland and Christchurch but are needed in at least four other locations nationally. ○ Require that the buildings government builds lead by reducing waste to landfill. ○ Support BIM modelling to give a list of materials used in a building that are recyclable, giving an asset value to these. ○ Support R&D through trials and survey work on better materials to use in construction. ○ Prioritise design-out waste options, whereby products are designed so they last longer and do not end up at landfills. As part of this, develop options to incentivise greater product stewardship.
9. Implement a national sequestration strategy that protects nature	
9.1. Develop a national sequestration strategy that recognises the environmental, social and economic benefits of a well-balanced use of sequestration as a mitigation tool	<p>We recommend that the government develops a national sequestration strategy that:</p> <ul style="list-style-type: none"> • Provides a representation of current land use and sequestration opportunities. • Considers desired outcomes at a national level, taking account of a natural-system approach to emissions reduction and land-use that results in nature-positive products (see Appendix 3). The strategy should prioritise sustainable land use ('right activity right-place'), resilient and thriving rural communities, maintaining and growing food and fibre exports, and be linked with the essential freshwater and indigenous biodiversity policy initiatives. • Considers wider natural ecosystem benefits, with an aim to protect our natural capital. • Addresses the ongoing need to offset carbon emissions and creates a balance across the environmental, social and economic benefits of exotics and natives. • Introduces financial reward / offsets for permanent native forestry. • Recognises on-farm sequestration opportunities. • Recognises offsets from reforestation projects and community restoration projects, e.g. wetland restoration. • Considers interim approaches to sequestration recognition in order to provide flexibility in the contractual system. • Recognises our domestic and international commitments to protect and enhance biodiversity. • Consider regulation that allows for inclusion of robustly proven sequestration pathways outside forestry and agriculture to incentivise research and implementation of these options. We note, for example, accelerated, permanent recarbonisation of cement is emerging as a credible sequestration pathway.

10. Improve the disclosure framework	
10.1 Ensure climate scenario assumptions are used consistently for the purpose of climate disclosures	<p>We recommend the incoming government:</p> <ul style="list-style-type: none"> • Provides guidance on the type of assumptions that need to be considered in three climate scenarios for climate risk assessment (i.e. SSP1-2.6, SSP2-4.5 and SSP 4-7.0), while recognising that some flexibility will need to be retained in the way organisations apply those assumptions given the specific context of their operations. We recommend this work is undertaken in partnership with SBC members. • Makes NIWA spatial data on climate change risks publicly available.
10.2 Improve guidance on the disclosure of Scope 3 emissions	<p>We recommend the incoming government:</p> <ul style="list-style-type: none"> • Clarifies via XRB that Scope 3 emissions are as outlined in GHG Protocol rules and ISO14064 standards • Considers making Government Carbon Neutral Programme Collateral resources available for others, so as to support other organisations to reduce Scope 3 emissions • Accelerates the issuance of Final Guidance for Voluntary Climate Change Mitigation and the update on the Interim Guidance. Ideally the guidance should include a pathway for businesses to use permanent native forestry as the basis for offsetting and describe that to consumers as carbon neutral or net zero.
10.3 Explore in partnership with business the introduction of Nature-related Financial Disclosures in the New Zealand market	<p>We recommend the incoming government:</p> <ul style="list-style-type: none"> • Explore in partnership with business the introduction of Nature-Related Disclosures in the Zealand market • Explore how any such disclosures would interact with the existing mandated climate-related risk regime in a way that recognises the interrelationship between climate and nature and can be practically adopted by business.

About SBC, CLC and Sapere

Sustainable Business Council

The Sustainable Business Council (SBC) is a CEO-led membership organisation with over 130 businesses from all sectors, ambitious for a sustainable Aotearoa. Members represent more than \$118 billion of collective turnover, 33 per cent of GDP, and nearly 190,000 full-time jobs. Our network gives members the ability to take large-scale collective action. SBC is part of the BusinessNZ network and is the New Zealand Global Network partner to the World Business Council for Sustainable Development.

www.sbc.org.nz/about/our-members/sbc-members

Climate Leaders Coalition

The Climate Leaders Coalition (CLC) was launched in July 2018 with 60 original signatories to promote business leadership and collective action on climate change. With nearly 100 signatories, they account for almost 60 per cent of New Zealand's gross emissions, around \$126 billion of collective turnover, and employ more than 210,000 people. Signatory commitments include measuring and publicly reporting their greenhouse gas emissions, setting a public emissions reduction target, and working with suppliers to reduce their emissions. <https://climateleaderscoalition.org.nz/>

Sapere

Sapere is one of the largest expert consulting firms in Australasia, and a leader in the provision of independent economic, forensic accounting and public policy services. They provide independent expert testimony, strategic advisory services, data analytics and other advice to Australasia's private sector corporate clients, major law firms, government agencies, and regulatory bodies.

They build and maintain effective relationships as demonstrated by the volume of repeat work. Many of their experts have held leadership and senior management positions and are experienced in navigating complex relationships in government, industry, and academic settings.

They adopt a collaborative approach to our work and routinely partner with specialist firms in other fields, such as social research, IT design and architecture, and survey design. This enables them to deliver a comprehensive product and to ensure value for money.

Glossary

Abbreviation	Stands for
AD	Anaerobic Digestion
CERF	Climate Emergency Response Fund
DER	Distributed Energy Resources
EA	Electricity Authority
EV	Electric vehicle
ERP	Emissions Reduction Plan
FBT	Fringe benefit tax
GHG	Greenhouse Gas Emissions
GIDI	Government Investment and Decarbonising Industry Fund
HV	Heavy vehicles
IPAG	Innovation and Participation Advisory Group
MDAG	Market Development Advisory Group
MfE	Ministry for the Environment
NAP	National Adaptation Plan
NBA	Natural and Built Environment Act
NPF	National Planning Framework
NPS	National Policy Statement
NZECS	New Zealand Energy Certificate System
R&D	Research and development
REC	Renewable energy certificate
RMA	Resource Management Act
VKT	Vehicle kilometre travelled
LCA	Life Cycle Assessment
XRB	External Reporting Board

