2021 Supporting Evidence Consultation Feedback and Updates

Part 5: How our elected officials can make this happen?

Themes we heard through consultation

Sector policies

Energy

There was broad support for a carefully managed national energy strategy to be developed in collaboration with energy-system stakeholders. There were mixed views over the effectiveness of setting a renewable energy target. There was support for the need to take a view across the regulatory settings of the energy sector to ensure that the system is fit to deliver the services needed in the transition. This includes Resource Management Act processes, the Commerce Act in relation to regulated gas pipelines businesses and electricity distribution businesses (lines companies), and the Electricity Authority's work on regulating the electricity system and market.

We heard strong support for a more streamlined consenting and planning process with the need for a clear national direction and coordination across competing objectives from different national and local policy instruments. This would ensure the fast-paced and sustained build out of the electricity system to support electrification across different sectors.

Some stakeholders also asked why new large-scale hydropower generation was not explicitly discussed.

Industry

For industry, there was some misinterpretation of the date where coal use is phased out in food processing and whether we were recommending a specific phase-out date. We also heard some stakeholders questioning why our policies for supporting a coal phase-out did not extend to the mining sector.

Buildings

Regarding buildings, there was strong support for an increase in our ambition for energy efficiency as well as support for a systems-based approach that looks more into the health co-benefits of warm dry housing. There was strong support for a more streamlined consenting and planning process to support the timely design and development of buildings (and communities) using innovative, low-emissions designs and materials.

Many submitters also suggested government support is needed in shifting to low-emissions building materials such as timber (e.g., through procurement directives) and in dealing with construction and demolition waste.

Submitters generally agreed that fossil gas use needed to be substantially reduced or eliminated by 2050 but raised concerns over the mechanism to achieve that outcome. Our *2021 Draft Advice for Consultation* recommended setting a date (no later than 2025) after which no new fossil gas connections to buildings would be permitted. However, there was very limited support for the form of this draft recommendation and a large degree of apparent misunderstanding (see next section on missing information, errors, and misrepresentations).

Submitters said that this recommendation would restrict consumer choice and optionality across the system regarding where emissions reductions could be made across sectors, and future opportunities to deliver low-emissions gases. There was also concern over the impacts on household energy bills, businesses and the workforce. Many stakeholders thought the end point was achievable, but the shape of the path needed more consideration.

For buildings, some submitters noted a lack of discussion or specific recognition of the Building for Climate Change programme of the Ministry of Business, Innovation and Employment (MBIE). In particular, they noted a lack of policy direction regarding embodied emissions from the building and construction sector, and lack of consumption-based emissions estimates.

Transport

Generally, the feedback we received from the public on the overall transport package was supportive. There was a common theme that the recommendations were very car centric with a lot of feedback advocating instead for transport mode shift and the co-benefits this represents such as health and wellbeing outcomes and reduced congestion. There were calls to have e-bikes included in the policy package and a push to remove barriers to increased public, shared and active transport. Suggestions included improving safety of active transport options, reducing fares, and making public transport free. We heard these were particularly important to consider from an equity perspective, as the barriers to active and public transport are greater for lower income households.

The motor industry supported introducing clean car standards in 2028 rather than the recent Government announcement of 2025, saying it was a more feasible option. Industry also wanted more of a focus on the existing fleet with some suggestions of a scrappage scheme to help encourage uptake of new electric vehicles (EVs). There was some feedback that our polices were too focused on EVs with not enough focus on other technology or alternative fuels.

We heard from many people who were concerned that the electricity distribution network might not be able to handle a large shift to EVs. This was specifically analysed as part of our modelling and included in our policy direction for energy, industry and buildings. We are confident the electricity network will handle a shift to EVs.

Some stakeholders also suggested that our policy analysis lacked recognition of the barriers to local councils taking action to support low-emissions transport options.

Agriculture

Overall, there was support for the development of advisory services for farmers, including by and for Iwi/Māori. We received mixed feedback on He Waka Eke Noa. This included polarising views on its efficacy, with some people strongly supportive of the He Waka Eke Noa as a way forward on

reducing emissions and others deeply sceptical of the programme based on its voluntary nature. We also heard support to continue with the farm planning work that is underway, and to remove policy barriers to research, development and technology uptake.

Some submitters considered that our recommendations demanded less effort from the agriculture sector and were less regulatory in approach compared to other sectors. There was support for implementing emissions pricing for agriculture and for developing of ways to demonstrate low-emissions production, including novel plant-based products. Many stakeholders were also interested in policy for regenerative and organic agriculture.

We heard specific policy requests from NGOs around phasing out the use of synthetic nitrogen fertilisers, palm kernel feed and banning further dairy conversions. Other stakeholders thought that our discussion of research and development was lacking information on deployment, and the policy challenges associated with that.

Waste

Throughout consultation, we heard support for more details about and attention to the circular economy. There were calls for more specific, ambitious and holistic waste policies, including zero waste targets and an explicitly centred waste hierarchy. We also heard calls to strengthen and expand the product stewardship scheme and enabling policies such as mandated source separation and phase outs of unnecessary packaging.

Some stakeholders wanted the Climate Change Commission (the Commission) to increase ambition regarding the amount of waste recovered from landfill with calls for specific targets for different types of waste. There were calls for composting to be prioritised over other recovery options. A smaller number of submitters wanted anaerobic digestion to be prioritised.

There were some submitters who called for various forms of landfill bans. Some wanted to ban all landfills by a certain date, some wanted a ban for some types of waste and some wanted to ban organics waste from going to landfills without waste. There was general support for the Commission to push for policies that increased and expanded landfill gas capture – expanding the sites covered and improving the efficiency of gas capture systems.

At the same time, we also heard from some stakeholders about perceived risks with landfill gas capture. These included that it may not be as efficient as advertised and that it might divert attention and resources from reducing waste and diverting from landfills.

There were only a few hydrofluorocarbon (HFC) related submissions, but the ones that we received generally supported our policy direction with a few additional suggestions. Some submitters supported our call for pre-charged HFCs to be included in the import restrictions. Other submitters called for the product stewardship scheme work for HFCs to be accelerated and strengthened. Most submitters agreed for the need for consumers and business to be enabled to switch to low climate impact alternatives to HFCs.

Forests and removals

Overall, we heard significant support for our draft policy recommendations on establishing new native forests. However, we also received feedback that our discussion on forests policies created some unhelpful confusion between the use of native and exotic species. Some submitters want the focus of climate policies for forests to be on the carbon that they store, rather than on whether they

are exotic or native. Other stakeholders expressed concerns about increasing areas of permanent exotic carbon forests, their risks, and the potential impact they might have on rural communities.

We also heard interest in our focus on establishing forests on 'marginal land'. Some stakeholders were concerned our definition of marginal land may lead to planting on productive farmland. Other stakeholders suggested we explicitly consider encouraging native forests on more accessible and easier terrain.

Submitters from the forestry industry emphasised the risk to achieving emissions budgets and targets if afforestation fails to reach the levels suggested in our demonstration path. They suggested the need for analysis on the policy implications of this possibility.

There was support for recognising the constraints on Māori land. There were suggestions to give credits for pre-1990 plantations on farms as well as looking at other carbon sinks like wetlands and oceans ('blue carbon'). Many stakeholders also expressed a wish to see more emphasis on how forests can contribute to a bioeconomy.

Some stakeholders suggested that our discussions of forestry policy should better consider the diversity of potential forestry systems and the importance of research, development and demonstration (RD&D) for forestry.

Multisector policy issues

We received feedback on a range of multisector policy issues. In terms of impacts, we heard from NGOs that across the board all policies need to take into account the disability community and their considerations. We heard from some that references or linkages to existing national policy programmes were missing from our policy discussions.

New Zealand Emissions Trading Scheme

We heard a wide range of feedback regarding the New Zealand Emissions Trading Scheme (NZ ETS). While some thought it should be the only or main emissions reduction policy, others favoured replacing it with a different system. A carbon tax was suggested as a possible replacement, while there were other suggestions of personal carbon or energy quotas. A group of businesses were concerned that the NZ ETS be central to climate policy efforts while other groups thought we should focus on non-ETS policies.

Some submitters thought industrial free allocation should be removed immediately, while others were worried that increasingly stringent climate policies and/or reductions in industrial free allocation would cause emissions leakage and a loss of jobs. A number of submissions supported the recycling of NZ ETS auction proceeds into other climate-related activities, such as emissions reduction projects. There was relatively little feedback on the specific proposed recommendations for amending NZ ETS unit supply and price control settings.

Research, development and demonstration (RD&D)

There is general consensus that research and development is very important although with varying perspectives on where it should be targeted. We heard from stakeholders an interest in us having a specific recommendation on RD&D, which we did not in our *2021 Draft Advice for Consultation*.

Finance

Generally, the feedback was that attention should be paid to finance more broadly. Actions in every sector depend on finance and our draft material on policy and finance was limited to climate risk disclosures This was a strong sentiment from the finance sector in particular.

There was widespread support for a climate risk disclosure regime and for the potential of expanding this, including to local government. Local government, however, were concerned about the support needed to implement a climate risk disclosure regime well. The same was true for local governments with regard to implementing shadow pricing.

Behaviour change

We heard strong support that behaviour change should be a key focus and most of the feedback thought that we had not emphasised it enough. While some thought individual choice should be the focus for behaviour change, others thought that focus should be on the system, as it is difficult for people to change their behaviour if they do not have access to tools to make good choices that suit their lives. There was also strong support for education to be included with behaviour change to help people understand the implications of their choices. There was some minor concern that behaviour change will be challenging for some people due to differing circumstances.

Circular economy

Overall, people wanted us to apply a consumption-based lens to our analysis of resource flows and emissions and link this back to behaviour change. There was a strong theme throughout feedback that advice and evidence regarding the circular economy should be separated from the waste section and elaborated on in its own section.

Bioeconomy

There was a general view that, given the bioeconomy involves many sectors, it would be helpful to draw relevant evidence together in one place. Submitters also considered there was a need for more coordinated, supporting policies for the bioeconomy.

Some industry submitters believed bioenergy sources were underutilised and underdeveloped, while others worried there would not be enough bioenergy to meet our needs.

We also heard concern about the use of forestry slash for biofuels due to the effect this might have on soil fertility for the next crop.

Urban form

Overall, there was broad support to ensure that the regulatory settings and ongoing implementation of national and local policy instruments enabled more compact urban development in a coordinated manner. Some submitters highlighted the tension between housing affordability, quality and supply, including how these factors could be impacted by the draft recommendations. They also wanted to see more cross-linking between transport sector recommendations and urban form.

There was broad support to ensure that the emissions consequences of infrastructure development are accounted for.

Errors and misrepresentations

Energy, industry, and buildings

There was a lot of misunderstanding regarding the direction of policy for fossil gas use in buildings. The draft recommendation to set a date by when no new fossil gas connections are permitted was misinterpreted as a full stop ban on the use of fossil gas and LPG. Highly specific uses of fossil gas such as tramping stoves, emergency backups, BBQs and pottery kilns were highlighted in media and public discourse. However, the intent of the draft recommendation was to deter investment in and expansion of the fossil gas pipeline infrastructure in order to prevent emissions lock-in from long-lived fossil fuel assets, minimise risk of stranded assets in the future, and safeguard consumers from the costs of expanding the network. The draft recommendation did not specify the removal of existing fossil gas heating systems and pipes that serve buildings before the end of their useful life.

Agriculture

A widespread misinterpretation of our *2021 Draft Advice for Consultation* was that we were recommending a policy of reducing livestock numbers by 15%. This was not a policy, but a modelling outcome based on assumptions about livestock management improvements. Related to this, many stakeholders also interpreted our discussion of reducing stocking rates and adopting other management practices to mean we were recommending every individual farm do all of these things.

This was and is not the thrust of our policy advice. Every farm is different, and our discussion of emissions reduction potentials is based on a national aggregate. Within this, we expect individual farmers and growers will make different combinations of changes based on what makes sense for their land. We have updated our language to clarify this across our chapters. More information about this in relation to emissions budgets and modelling can be found in *Part* 3 of the *2021 Supporting Evidence*.

Forests

Regarding forests, there was a common misunderstanding during consultation that our analysis of establishing new native forests was focused on planting trees. Our discussion of establishment intended to cover both planting and reversion of land to native forest.

Multisector issues

It was identified during consultation that our consideration of bioenergy feedstocks had been limited to woody biomass. Stakeholders highlighted that in doing so we overlooked other existing feedstocks, such as tallow. We have addressed this and included a broader range of feedstocks in our updated bioeconomy policy analysis. We also heard some interest in potential new or niche feedstocks such as willow, miscanthus, straw, and sugar beet.

New evidence and analysis

We considered some additional evidence and conducted further analysis to improve the chapters in *Part 5* of the *2021 Supporting Evidence*. These are summarised for each sector below:

Energy, industry and buildings

Additional consideration was given on potential policy direction and levers to deter the expansion of the fossil gas network and manage the diminishing role of fossil gas across the energy system. This includes considering the potential impact of changes in timing of heavy industrial exits such as Methanex and the Tiwai Point aluminium smelter.

We also refined our advice on the renewable energy target by specifying a preferred metric from different options. For example, whether the target is renewable energy as a share of total primary energy supply or as a share of total final energy consumption (preferred). This included refinement of the calculation methodology in the ENZ model.

We made note of the recent Government announcement on banning new coal boilers for use in manufacturing and production, proposal to phase out existing coal boilers by 2037, and other mechanisms to phase out remaining fossil fuel use in boilers.

We considered additional information regarding barriers to behavioural change which can impede greater provision and uptake of low-emissions alternatives in buildings. Evidence around the role of buildings in climate change mitigation and adaptation was also examined. This included evidence on the relationship between buildings, emissions-intensive materials (and associated heavy industries) and embodied emissions. We also looked at the ongoing work to update and strengthen the Building Code.

Transport

Further attention was given to potential supply constraints on EVs, particularly used EVs from Japan, and how this could inform our discussion of clean car standards and combustion engine vehicle import bans. We also considered additional information about pathways for transitioning to low-carbon freight transport, including improving energy efficiency and system optimisation.

Forests and removals

We carried out further analysis on costs and establishment options for native forests. This involved considering different production regimes between planting and natural reversion and the associated cashflows over time.

Multisector issues

We looked at additional analysis about developing an integrated bioeconomy, including by drawing together strands of our existing work that had been previously sitting within the sectoral analyses. Similarly, we analysed further information about urban form as a multisectoral policy issue.

Consultation also led us to do further analysis on the potential for behaviour change across the board, and the way in which different types of policy levers can address different market failures or barriers to action. This helped develop our evidence base behind needing a comprehensive package of policies to drive emissions reductions.

We also did additional analysis on the circular economy. This included looking at circular economy work ongoing overseas and what was happening in Aotearoa.

What we have changed in Part 5 as a result of consultation

Based on feedback from consultation and our additional analysis, we have made a number of edits to the chapters in *Part 5* – particularly regarding our direction of policy advice. The key changes are described below:

Chapter 18: Our approach to policy

- Added additional information about the need for a comprehensive package of policies to address multiple market failures and barriers to action. This includes a new chart that highlights the appropriateness of different policy approaches through phases of a technology's life cycle.
- Updated our description of the "waterbed effect" for greater clarity.

Chapter 19: The direction of policy for Aotearoa

Multisector

- Refined our discussions of policies related to RD&D, finance, and behaviour change across sectors and reorganised them into a connected discussion on unlocking deep emissions reductions over the long term, in line with our recommendations in the Commission's advice, *Ināia Tonu Nei*. This included expanding our finance discussion beyond just disclosures to include broader mobilisation of finance.
- Added a dedicated section discussing circular economy policies, in line with our updated recommendations.
- Added a dedicated section discussing bioeconomy policy, in line with our updated recommendations.
- Added a dedicated section discussing policies related to urban form, function, and development, in line with our updated recommendations.

Energy, industry, and buildings

- Reorganised and renamed this section (previously heat, industry, and power) to align with the Commission's advice, *Ināia Tonu Nei* recommendations.
- Consolidated our analysis of energy policies into one focused on the energy system, one on industry and one on buildings, to align with the Commission's advice, *Ināia Tonu Nei*.
- Streamlined our discussion about maximising use of electricity as a low-emissions fuel.
- Indicated preference that the renewable energy target is measured as a share of total final energy consumption rather than total primary energy supply and the rationale for this.
- Expanded discussion on approaches or policy direction for reducing fossil gas use in buildings, deterring expansion of the fossil gas network and managing the diminishing role of fossil gas across the energy system.

- Added detail to our discussion of the building sector, particularly regarding the role of quality, design, and construction of housing in emissions reductions, and the scope for greater energy efficiency gains.
- Highlighted more linkages across sectors to existing Government policy programmes e.g. MBIE's Building for Climate Change programme.
- Clarified our discussion of phasing out coal, including by distinguishing our policy recommendations and what our demonstration path represents.

Transport

- Added additional narrative to give a more systematic view of transport sector.
- Incorporated the 'avoid, shift, and improve' framework for addressing transport emissions ('avoid' or reduce total trips, 'shift' the mode of trips taken, and 'improve' the emissions efficiency of trips taken by a given mode).
- Built out the discussion to include more emphasis on the entire transport system, including public and active transport as much as light vehicles.
- Added more information on challenges for local councils to support the transition to lower-emissions transport systems, and proposed policy approaches.
- Streamlined our discussion of EV policies to reflect the consolidation to one EV recommendation in the Commission's advice, *Ināia Tonu Nei*.
- Expanded our discussion on policies for low-carbon fuels to cover reducing emissions from freight and reframed the development of low-carbon fuels to be more technology neutral – for example, it is no longer referred to as low-carbon liquid fuels. We have removed the reference to a specific target for low-carbon fuels uptake.
- Included additional information on Road User Charges and the option of providing exemptions to low carbon-fuelled heavy transport.

Agriculture

- Restructured based on updated recommendations in the Commission's advice, *Ināia Tonu Nei*.
- Added additional detail regarding the challenges and approaches for advisory services, and for promoting market acceptability for low-emissions products.
- Added detail about the role of agricultural emissions pricing policy.
- Extended our discussion of technologies and RD&D, including with more information about deployment.

Waste

- Included more discussion on the right to repair and phasing out excess packaging, including regulatory options.
- Added detail to underscore the importance of keeping different types of waste separated.
- Added more information on the potential for landfill gas capture to mitigation emissions from historic waste and landfills.

- Incorporated a discussion on landfill gas monitoring.

Forests and removals

- Restructured based on updated recommendations in the Commission's advice, *Ināia Tonu Nei*.
- Better highlighted how forest establishment can be both through both planting and reversion.
- Added a dedicated section discussing pest management policies, in line with our updated recommendations.
- Expanded the discussion of non-forest carbon stocks that can be maintained and enhanced, including wetlands and peatlands.
- Added a discussion of the need to provide more flexibility for Māori-collectives with pre-1990 forests on their whenua.
- Highlighted more linkages across sectors to existing Government policy programmes e.g. to Predator Free New Zealand and the New Zealand Biodiversity Strategy 2020