# 2021 Supporting Evidence Consultation Feedback and Updates

## Part 4: What could this mean for New Zealanders?

## Themes we heard through consultation

## Households and communities

We heard a lot about the importance of targeted support for vulnerable groups. There was strong support for targeted assistance for low-income households, elderly, disabled people, Māori and Pasifika households, households that live in remote areas, and specific industries that will be vulnerable to policy changes across the board.

Significant concern came through during consultation about potential impacts to rural communities from changes to the agricultural sector including reductions of meat processing and livestock numbers.

We heard support for the importance of healthy, affordable homes in the transition.

We also heard concerns about the impacts on Pacific communities via their families affected by climate change in the Pacific. More generally, submitters also highlighted the need for us to consider the country's responsibility to our Pacific neighbours. There were also calls for a greater integration of Pacific perspectives in the advice.

#### Health

Submitters recognised the link between public health benefits and climate action. Submitters noted the benefits to New Zealanders from using vehicles less such as better air quality and improved health from walking and cycling more. Submitters also highlighted the co-benefits from improving heating and insulation in homes and from moving towards plant-based diets. Submitters highlighted the mental health impacts from climate change. Submitters expressed concern that failing to implement healthy and equitable climate policies would lead to an avoidable burden of ill-health in future generations.

Submitters called for a greater recognition of the health benefits and the opportunities for reducing existing health inequities in our advice. We also heard calls for the Climate Change Commission (the Commission) to have public health specialists on the Commission's board, including specific expertise relating to Iwi/Māori health, and for the Commission to set up a multidisciplinary health advisory group.

## Environment and ecology

A common environmental concern that we heard through consultation was about the potential impact of additional forestry. Many stakeholders were worried that slash or waste from production

forestry could have additional impacts on local waterways and ecosystems, particularly as extreme weather events become more frequent.

### Economic costs of the transition

We heard a range of perspectives about the modelled economic costs of our advice. Some stakeholders questioned the estimate that the impact on GDP in 2050 would be less than 1%. Some emphasised that a 1% GDP impact would be too burdensome for Aotearoa, particularly for businesses and the economy. Some submitters were concerned that the costs would disproportionately fall on low-income groups and that policy to meet emissions budgets could reduce overall standard of living. Some submitters also requested that we provide a better assessment of the benefits of climate action, and the costs of not acting.

## Need for a 'just transition'

Throughout consultation we heard strong support for a 'just transition' and for locally driven transition planning. Submitters asked that we include the specific 'just transition' term, given its reference in international agreements and use internationally and within Aotearoa.

The role that unions will play in the transition was emphasised by submitters. We also heard about the need to support affected workers in a transition, specifically support for workers on low incomes and those working in high emitting industries to retrain or to move into meaningful alternative jobs.

We heard strong support for taking an inclusive approach to the transition. We heard about the need to recognise historic grievances for Iwi/Māori, and take a partnership approach in line with Te Tiriti o Waitangi/The Treaty of Waitangi. We also heard that all groups of people and sectors of the community should be involved in planning and co-designing the transition process. There was strong support that changes should benefit all people and that existing social equities should not be worsened. We heard about the need to consider gender inequalities and vulnerable groups including people with disabilities and those on low incomes.

Concern was raised about rural communities being overlooked in a 'just transition'. We heard calls for us to engage more with rural communities as they hold key knowledge and can provide practical support for the transition.

Stakeholders also called for Government to take the lead by being an exemplar employer and promoting job transformation through investment in low-carbon industries and procurement. We heard voices saying that the Government's approach to supporting jobs in the context of climate change has been much more conservative than in response to COVID-19.

## Education and skills

We heard strong support for more climate education and teaching in our schools with resources and programmes co-designed with young people. There were suggestions that increasing climate education in the curriculum contributes to a 'just transition' by supporting new thinking and innovation as well as leading a Te Tiriti o Waitangi/The Treaty of Waitangi based climate response.

There was concern about the ability of the education sector to adapt to demands of the future workforce needed for a low-emissions economy, particularly the broader demographics of the workforce and the capacity to address to skills gaps. We heard about the need for information to be

provided to individuals and small businesses to support behaviour change, training and skills development.

Stakeholders also emphasised the education sector needs access to high-quality knowledge, support, and partnerships with those who lead the transition within other sectors.

## Errors and misrepresentations

We heard some confusion during consultation about whether our impacts analysis related to our advice on emissions budgets or the emissions reduction plan. This is something we have attempted to clarify throughout our reports by more clearly delineating our impacts discussion between the two components of our work.

It was also pointed out that detailed information about the health impacts of our advice was missing, as were specific references to the need for a 'just transition' or the potential environmental impacts of electric vehicles over their lifecycle.

## New evidence and analysis

Over the consultation period we have received some new evidence and conducted additional analysis relevant to *Part 4* of *2021 Supporting Evidence*.

#### Overall economic cost and jobs

We conducted additional analysis about the cost of our advice. This included assessments of the cost and savings of key changes to the energy system. We also updated and re-ran the C-PLAN model to get an updated assessment of the potential impact on GDP. This included carrying out additional sensitivity analyses on issues such as potential future industrial closures.

We also did further analysis on the impact our recommended emissions budgets could have on jobs and employment in Aotearoa. This was partially informed by feedback and additional information we received from stakeholders. An important part of this was shedding more light on the job creation that could occur as part of transitioning to a low-emissions economy in areas such as renewable energy, energy efficiency, hydrogen and biofuels, forestry, and agriculture. We also carried out further analysis of the broader employment context in Aotearoa in which the impacts of our advice would occur, which highlighted issues as the aging workforce and sectoral labour shortages. All of this has been supported by the results from our updated quantitative modelling.

Electricity lines companies provided evidence on network costs. We updated this part of the model to be more cost reflective (in relation to electricity price structures), and incorporate different cost breakdowns for residential and commercial consumers related to electrification.

#### Impacts on households and communities

Through consultation we received information about the health impacts of climate action, which we have integrated into our analysis. This has included noting the many health co-benefits from shifting towards more active and public transport, improved air quality and warmer homes through better insulation.

Another area where we did further analysis was on the potential impacts of our advice on regional Aotearoa. As part of this we did further analysis on the rural impacts of land-use change and updated our regional analysis using the DIM-E model.

We also carried out further quantitative analysis on household energy costs, particularly to households that use fossil gas or owned an ICE vehicle.

## Environmental and ecology impacts

Based on feedback and concerns raised during consultation, we conducted some additional analysis on the potential environmental impacts of electric vehicles across their lifecycle.

## What we have changed in Part 4 as a result of consultation:

Based on what we heard through consultation and our additional analysis, we have made several changes to the chapters in *Part 4* of *2021 Supporting Evidence*.

## Chapter 14: Introduction: What could this mean for New Zealanders?

• No substantive changes

#### Chapter 15: How we earn our way in the world

- Updated quantitative results based on latest runs of the Commission's models, ENZ, C-PLAN, and DIM-E, including new sensitivity analyses
- Added new analysis on the costs and savings of making key low-emissions changes in the energy system
- Added additional qualitative analysis on the impact on jobs, including the types of jobs that could be created from trends such as electrification and the circular economy
- Included more information on the broader national employment context of potential job impacts

## Chapter 16: Households and communities

- Added new detail about the health impacts of climate action, including improved air quality, warmer homes, and improved physical activity from active transport
- Included additional information on regional impacts, including regional-level job analysis based on DIM-E results and impacts from land-use change for rural communities
- Updated analysis on household energy costs based on the latest modelling runs and Energy Link
- Updated analysis on the impact of land-use change on rural communities, including additional employment information and updated land use graphs based on latest ENZ data

## Chapter 17: Impacts on environment, ecology, and the ability to adapt to climate change

- Merged the two chapters that were previously titled "environment and ecology" and "the mitigation-adaptation"
- Added more detail about the potential environmental impacts associated with the lifecycle of electric vehicles