# Sustainability Trust – Climate Change Commission Submission

Submitted 27 March 2021.
RESPONSE ID: NZPP-DXA4-S.



### Our one big thing

Transition should ensure that the most vulnerable individuals, households and communities are not left behind either in Aotearoa or globally.

The proposed emissions budgets must take into account the commitment to global equity and New Zealand's obligations as a developed nation that is noted in the NDC section of the report. The legislation describes the purpose of emissions budgets to be for meeting the 2050 target AND New Zealand contributing to global efforts for 1.5 degrees (section 5W). There are various policy areas where greater action can be taken in the next decade to enhance the first two budgets for greater consistency with IPCC's 2030 pathways for 1.5 degrees (outlined under question 4), while also meeting the 2050 target.

Policy approaches to equity must ensure that the cost of transitioning to a low-carbon future falls on industries and companies most-responsible rather communities. Policy must be designed to pass the cost of transition onto these industries rather than individual consumers so low-income communities are not regressively impacted. This means that there must be a greater role for the consumption-based approach to calculating emissions. Consumption-based emissions data follows the lifecycle of products and materials, exposing both embodied emissions generated offshore and the upstream emissions cost of short-lived consumer goods.

Communities, (locality and interest/kaupapa-based) can be key contributors to carbon emissions reductions. Communities have a vested interest in how their locality or area of interest is impacted or can deliver the transition.

Prioritise social enterprises/Maori businesses, and local organisations to produce commercial responses to address inequities. Engaging local organisations ensures responses are crafted to local requirements. This is in contrast to top-down solutions delivered by government or commercial organisations with limited local accountability. There are many community-based businesses and organisations already running at-scale programmes; these include members of Community Energy Network, Zero Waste Network and Envirohubs Aotearoa.

Support for sustainable procurement that delivers wider social benefits is already mandated by NZ Government Procurement. Social procurement requirements for government and commercial contracts that recognises local ownership of outcomes are required. Local organisations and community enterprises, supported by social procurement policies will support education and training for apprentices and lower-skilled workers. Many local organisations are committed to skills building with their communities. Focus in this area in terms of place-based contracts and financial investment will enable strengthening of communities, retention of money within local areas and effective climate response activities. A specific example is in energy generation, transmission and retailing. Community-owned energy

assets and retailing has a range of climate, resilience, skills building, and selfdetermination benefits. Support and policy changes will be required to accelerate this opportunity.

We have contributed to, and fully support, the submission from the Zero Waste Network, the New Zealand Product Stewardship Council, The Rubbish Trip and Takeaway Throwaways. We are also actively involved in the Usedfully Textile Reuse Programme and fully support their submission.



#### References:

Galvin, R et al. Inequality and Energy. Elsevier 2020

Consumer Care Guidelines – Electricity Authority: <u>New-Consumer-Care-Guidelines-draft-final-guidelines-for-consultation-20210222-Clean.pdf</u>

A Green Recovery: NZGBC 2020 Attachment (nzgbc.org.nz)

New Zealand Government Procurement: <u>Broader outcomes | New Zealand Government Procurement and Property</u>

#### SIX BIG ISSUES

1. Do you agree that the emissions budgets we have proposed would put Aotearoa on course to meet the 2050 emissions targets? Please explain your answer (1000 word limit)

#### Disagree

The Commission's proposed approach is not ambitious enough and risks passing many tipping points.

The proposed emissions budgets must take into account the commitment to global equity and New Zealand's obligations as a developed nation that is noted in the NDC section of the report.

We do not agree with the Commission's plan to reduce as little agricultural methane as possible (the lower end of the target ranges - 13% by 2035 and 24% by 2050). We must aim for the most ambitious climate plan, not the least. We want to see more agricultural climate pollution reduced and faster.

The Commission's waste advice focuses on reducing methane emissions from organics that end up in landfills. However, long-lived GHG emissions are also generated from the extraction, production, transport and consumption of packaging and goods, which is intrinsic to our current, unsustainable 'take-make-throw' linear economy. To meet the 2050 emissions targets, the Commission should expand its advice to consider all waste streams, and build consumption-based measurements into its analysis.

2. Do you agree we have struck a fair balance between requiring the current generation to take action, and leaving future generations to do more work to meet the 2050 target and beyond?

#### Disagree

We are a developed nation and must be doing more. Our approach to transitioning equitably must take into account our role as a developed nation that has historically contributed more than our fair share of emissions, and account for the high-polluting industries that have profited from decades of pollution with little consequence. It is essential that our actions account for our fair share to reduce the burden on future generations and communities on the frontlines of climate impacts, who have contributed the least to the problem but are paying the highest costs. The draft emissions budgets are inconsistent with a 1.5 degree pathway for 2030, particularly with the role New Zealand needs to take as a highly developed nation to do more than the average.

The cost must fall on industries most-responsible: Our policy approaches to equity must ensure that the cost of transitioning to a low-carbon future falls on industries most-responsible and companies rather than individual consumers so that policies do not regressively impact low-income communities.



Situating the bulk of reductions in the 2030s puts an unfair burden on future generations compared to greater cuts this decade. Bringing more government-direct investment in emissions reductions forward will share the burden of reductions more equitably, while also contributing to greater consistency with 1.5 degree pathways. This approach echoes what has happened for the last 20 – 30 years in climate change action, where we've seen what needs to be done, but always push the time for urgent action forward to another decade.

#### 3. Do you agree with the changes we have suggested to make the NDC compatible with the 1.5°C goal?

Disagree – our changes are not ambitious enough.

The Commission's approach is not ambitious enough: The first three carbon budgets proposed by the commission require a very cautious and incremental approach to reducing emissions, before larger cuts in later years. But the Intergovernmental Panel on Climate Change's 1.5 degree report outlines that for a 66% chance of averting climate catastrophe, we must approach emissions reductions with deep cuts in emissions starting immediately. The Commission's proposed approach is not ambitious enough and risks passing many tipping points which would put us on a hothouse earth trajectory.

### 4. Do you agree with our approach to meet the 2050 target that prioritises growing new native forests to provide a long-term store of carbon?

#### Strongly agree

- We support the commission's focus on large reductions of carbon dioxide with as little reliance on emission removals by forestry as possible.
- Our approach to forestry must consider how sovereignty will be returned to mana whenua to manage land, to uphold article 2 of Te Tiriti o Waitangi.
- We support the significant increase in new native forests and the assumption that no further native
  deforestation occurs from 2025. All native habitats must be incorporated into this approach. For
  example, wetlands and tussock should be recognised for their role in storing carbon, and protected
  from destruction.
- Our approach to forestry must address climate change while recognising the intersecting biodiversity crisis. We support the commission's recommendation to reduce reliance on exotic forestry due to the damage it causes to native habitats. We suggest a stronger approach to restore and manage existing native habitats to allow for a reduction in the proposed exotic afforestation.

### 5. What are the most urgent policy interventions needed to help meet our emissions budgets? (Select all that apply)

Action to address barriers - Pricing to influence investments and choices - Investment to spur innovation and system transformation - None of them

Multiple, urgent policy interventions are required, and these should be determined by referring to the waste hierarchy and the perspective of local communities. Aotearoa can make a just transition by strengthening and resourcing local communities to produce locally grown kai and locally made goods, and to develop innovative, brave solutions. Achieving this requires comprehensive education programmes and a balance of multiple, urgent policy interventions, as outlined below:



#### **Energy**

- 1. Much larger direct investment in energy efficiency is needed.
- 2. Energy efficient homes must be financially affordable and physically accessible.
- 3. More ambitious targets and bans on coal:
  - 1. Replace coal use in process heat for food production, specifically for the dairy industry, with renewable energy sources (not gas) by 2027.
  - 2. Ban new and expanded coal mines in Aotearoa, and an end date for all coal mining in Aotearoa including coal mining for export.
  - 3. An immediate ban on any new coal mining on conservation land.
- 4. Bring forward the phase out date for fossil fuel heating in new buildings to 2022.
- 5. Make our biggest polluters pay by immediately ending subsidies via free carbon credits.

#### Waste

- 1. Provide more detail on the interventions needed to reduce organic waste to landfill
- 2. Recommend binding reduction targets for all waste streams.
- 3. Recommend waste levy revenue is invested in community-scale solutions at the top of the waste hierarchy
- 4. Advise that measuring and increasing circularity in our economy is urgent
- 5. Advise the government to strengthen and expand its approach to product stewardship to ensure materials are kept in circulation and product lifespans are extended.
- 6. Advise that products that cannot be effectively reused, repaired, recycled or composted should be designed out of the economy.

#### **Health and Equity**

- 1. Having minimal focus on health, and particularly on health savings from co-benefits, is a dangerous communication failure on the part of the Commission.
- 2. Indigenous peoples management of resources is crucial to equitable emissions reduction and approaches to climate action must reflect this importance.
- 3. Support Māori governance of taonga by:
  - a) Government creating binding best practices that require at least co-governance of land, water and air with whānau, hapū, iwi.
  - Give full effect to Te Tiriti o Waitangi by initiating a process to implement the recommendations outlined by the Matike Mai report, in coordination with whānau, hapū and iwi
- 4. There is no mention made of our Pacific neighbors, for whom climate change is currently the biggest existential threat. While this report is about Aotearoa, we believe that we have a duty of care to these nations and their people. The effects of climate change inequitably impact these nations and yet they are the least likely have the resources needed to make positive change and mitigate climate change impacts.

- 5. While disability is mentioned in the report, this does not go far enough. The commission needs to expand on this with a disability-responsive position statement and work group recommendations, to ensure a just transition.
- 6. Gender is not mentioned in the report once; yet climate change disproportionately impacts women and people of diverse genders. It's vital that the Commission takes into account research on the gender impacts of climate change and climate action, and include this into their analysis.



#### **Transport**

- 1. An integrated transport system that enables travel by active and public transport within and between regions. Currently, the recommendations are not ambitious enough.
- 2. Walking, cycling and public transport can and must play a much larger part in decarbonising the transport system.
- 3. Greater focus on livable, compact, accessible and equitable cities.
- 4. We support the proposals for transitioning from internal combustion engine vehicles to EVs, where alternatives to private vehicle ownership are not possible. However, take account of, and prepare for, possible unintended consequences of mass EV adoption e.g. creation of waste batteries, and co-create policy with those affected.
- 5. Advise the Government that continuing to expand road capacity is incompatible with addressing climate change. Redesign freight models to integrate reverse logistics and electrify rail and ferry infrastructure.
- 6. Do you think our proposed emissions budgets and path to 2035 are both ambitious and achievable considering the potential for future behaviour and technology changes in the next 15 years?

#### Disagree

With existing technology we can achieve far more ambitious emissions budgets, stronger policy recommendations, and more stringent targets for heavy polluters, than the Commission's draft proposals. The Commission's report currently misses the opportunity to highlight the cost of inaction.

The commission's waste advice takes us in the right direction, but must be more specific, ambitious and holistic to harness the power of reduction and reuse strategies to reduce emissions.

Many of the commission's recommendations seek to find ways of reducing emissions without questioning the linear extractive economy, which fuels both climate change and waste generation.

The Climate Change Commission's report underestimates the potential opportunity to harness the public's existing interest in waste issues as a gateway to behaviour change for climate mitigation.

#### **DETAILED QUESTIONS**

1. Do you support the principles we have used to guide our analysis?

No response.

2. Do you support budget recommendation 1? Is there anything we should change and why?

No response.

3. Do you support our proposed break down of emissions budgets between gross long-lived gases, biogenic methane and carbon removals from forestry? Is there anything we should change, and why?

No response.

4. Do you support budget recommendation 4? Is there anything we should change, and why?



No response

5. Do you support enabling recommendation 1 on cross-party support for emissions budgets? Is there anything we should change and why?

We fully support the recommendation to seek cross-party support on emissions budgets and for the emissions budgets to be debated in the House to ensure political party positions are on the record.

Experience suggests that more may be needed to secure enduring cross-party support for the emissions budgets than a parliamentary debate. In the UK, there are already two all-party parliamentary groups focused on climate change. We would support a recommendation that Parliament establish a Select Committee dedicated to climate change and resource conservation, or else another means of formalising cross-party discussion on climate change within the Parliamentary branch of government (rather than discussions being led by the Minister, as a representative of the Executive).

Engaging the public on a deeper level with the emissions budget recommendations would be another indirect means of garnering cross-party support because if political parties' constituencies understand and broadly support recommended climate change actions, politicians will follow.

6. Do you support enabling recommendation 6 on coordinating efforts to address climate change across Government? Is there anything we should change and why?

**Fully support** 

7. Do you support enabling recommendation 3 on creating a genuine, active and enduring partnership with iwi/Māori? Is there anything we should change and why?

Fully support

8. Do you support enabling recommendation 4 on central and local government working in partnership? Is there anything we should change and why?

Fully support

This is absolutely required in relation to waste. Local government is in charge of waste responsibilities including emissions from landfill when they have not been responsible for creating the vast majority of the waste and central government holds all the regulatory levers to make actual change. Local government will need to be sufficiently resourced and supported to competently undertake the additional work required of them.

The importance of housing quality needs to be highlighted more strongly. Specific recommendations for increasing the building code insulation and energy efficiency standards to meet international practice is key to reducing household emissions. Other policy instruments such Energy Performance Certificates (EPC) and minimum standards for energy use in rental and owner-occupied existing homes are also essential to drive energy efficiency. Overseas experience has shown EPCs influenced between 12 and 37% of households to make energy efficiency improvements 3

9. Do you support enabling recommendation 5 on establishing processes for incorporating the views of all New Zealanders? Is there anything we should change and why?

Fully support

Strongly support citizens assembly, but in a way that incorporates tikanga Māori. Participants in the Citizens Assembly in the UK have reported a profound impact on their own perspectives on climate change.



We need to find ways to communicate the vision to the whole of Aotearoa - having a positive vision will support behaviour change. Co-design at a local level must be enabled. We must ensure that any co-design process that engages with civil society is not driven or dominated by those with the most access to resources. Commonly these processes can overlook or fail to engage low income, hard to engage groups, including refugee and migrant communities, LGBTIQ communities and rural or remote communities.

Public engagement should include effective and non-partisan public communications by the Climate Change Commission about the emissions budget recommendations. The lengthy nature of the current consultation provides a significant barrier to public engagement.

We support intensive work on education and behaviour change activities. This includes large scale promotional activity on both a strengths-based (supporting positive behaviours) and deficit-based (socially unacceptable) programmes.

10. Do you support our approach to focus on decarbonising sources of long-lived gas emissions where possible? Is there anything we should change and why?

Partially support.

We need to decarbonise, reduce production and create and measure circularity in the economy.

Embodied emissions, international shipping and aviation should be considered within the calculation of emissions budget. Inclusion is required to creating a circular economy and ensuring we are not resulting in unintended consequences and shifted the burden of emissions reductions on other countries.

For example, reducing emissions from the transport sector is not only about electrifying the private vehicle fleet, but also about reducing the overall number of cars New Zealand needs through prioritising access to EVs for car sharing schemes and public transport and ensuring the materials within EVs can be recirculated in the economy at end of life.

11. Do you support our approach to focus on growing new native forests to create a long-lived source of carbon removals? Is there anything we should change and why?

**Fully support** 

12. Do you support the overall path that we have proposed to meet the first three budgets? Is there anything we should change and why?

Partially support

By ignoring the consumption-based approach, the commission risks shifting emissions related to its proposed solutions onto other countries.

We call on the commission to recommend the reduction of all waste streams to landfill, whether organic or inorganic, given the untapped potential to reduce upstream/lifecycle emissions of long-lived gases through waste prevention strategies that target inorganic waste streams.

We urge the Commission to call for ethical supply chains that support the purchase of products that have as long a lifecycle as possible (i.e. are durable and repairable), can be properly recycled at end-of-life, and do not come from countries with lower standards of environmental control.

We urge the Commission to strongly recommend that government leads the work to reduce the impact of products across their lifecycle, rather than leaving this to industry, with a much greater focus on achieving outcomes at the top of the waste hierarchy.



Shifting towards greater uptake of heat pumps to improve energy efficiency for energy issues will increase HFCs. The commission needs to recommend greater regulation of the refrigerant recovery sector, to ensure that degassing is being done correctly. Furthermore, regulations such as mandatory product stewardship in this area need to cover household units, such as heat pumps, as well as commercial units.

The commission's section on buildings is focused exclusively on energy efficiency. We are fully supportive of ensuring energy efficient buildings. However, beyond this we urge the commission to broaden its focus because construction is an area of great potential for further emissions reductions. Currently, the pathway for buildings does not consider the significant carbon emissions associated with new builds, including that embodied carbon is responsible for 50% of carbon emissions from buildings, nor the fact that this sector contributes approximately 50% of NZ's waste to landfill. Key transitions for waste and emissions reduction must include this stream and take a whole life / circular economy perspective for all building and infrastructure projects.

#### In addition:

- There must be sufficient funding behind behaviour change and education to support the adoption of the pathway set out.
- It is critical that national and local government adopts procurement policies that support ethical supply chains, sustainable and social procurement.
- The planning system will be an important enabler e.g. allowing local community composting and opportunities around the co-location of industries to make best use of heat.
- There are opportunities around agriculture innovation that mean we don't have to accept business as usual. We can reduce our need for imports, support diets that are lower in meat and diary and look for innovation e.g. aquaculture.
- Need greater recognition of the co-benefits of Climate Action on health, wellbeing and resilience.
- There must be stringent standards around the use of biomass so that local and indoor air quality is not impacted.
- There has been no consideration of the energy demands of cloud data storage.

## 13. Do you support the package of recommendations and actions we have proposed above to ensure an equitable, inclusive and well-planned climate transition, and is there anything we should change?

#### **Fully support**

We strongly agree that the carbon transition should ensure that the most vulnerable households and individuals are not left behind. It must be of paramount importance to not widen the poverty gap or increase inequality by taking urgent action against climate change. We also think that Pacific Island neighbours who are inequitably affected by climate change should be mentioned in this report.

We strongly support the recommendation in Time-critical necessary action 1 that the Government should develop an Equitable Transitions Strategy in the first budget period. We particularly support the recognition

that transition planning is best "created for the local community, by the local community," and "will help ensure climate change policies are tailored to regional and local circumstances and address the needs and aspirations of different groups within the community" (p. 96).



It would be good to see a more positive story told about the potential of a climate-resilient, low-emissions Aotearoa. We thus recommend that Necessary Action 1 (e)

places much stronger emphasis on accounting for positive co-benefits of particular actions. Overall, Chapter 5 seems to feature substantial assessment of costs, but little of benefits. The chapter notes that benefits are difficult to assess because of uncertainty. However, there is significant potential to explore and account for other possible benefits, even if these are not quantified (as was done briefly around positive health impacts from warming up homes). Furthermore the cost of doing nothing has not been adequately assessed - this would certainly be easier to quantify than the benefits of action.

For example, the positive environmental impacts from waste minimisation (s 5.8, p. 101), including potential for emissions reductions, go far beyond landfills. Minimising edible food waste, which is estimated to account for 6-8% of global GHG emissions, can have a substantial emissions reduction impact alongside positive social outcomes such as redistributing low-cost food to those who need it; diverting organic waste into composting can help reduce and offset agricultural emissions by substituting (at least partially) synthetic nitrogen fertiliser for compost and helping to sequester carbon in the soil; investing in circularising the economy would help to reduce environmental litter and pollution, and could help reduce emissions and pollutants from resource extraction and refining, goods manufacturing and transportation of these materials and products (both within Aotearoa and globally) - particularly for products that have a short lifespan.

An equitable transition must also take into account global equity. The issue of emissions leakage as discussed in the advice currently only considers the problem relating to emissions-intensive domestic activities. This issue should be extended to account for increasing offshore emissions from a consumption-based analysis, e.g. imports of products with significant embodied energy. This issue is only acknowledged in passing in section 5.8, but its potential to create negative environmental impacts and an unequal global burden should be considered more seriously.

We have identified two key sectors in which big opportunities exist for an equitable, inclusive and well-planned transition to a low-carbon economy - the circular economy and the food system. We suggest that these specific areas are factored into the recommendations of Necessary action 1 (as per housing, insulation and heating policies).

#### The circular economy

• We would like to see specific recommendations that take advantage of the myriad benefits, such as job creation potential, of aggressive and ambitious policy and investment in circular economy actions. For example, a 2018 report found that a circular economy could grow Auckland's GDP by up to \$8.8 billion by 2030. This potential is recognised in passing in the Commission's advice (p.95), but the job opportunities that may arise in a transition to a circular economy, and the range of sectors in which those jobs could be created, are vastly understated and underestimated. A synthesis report by the International Institute for Sustainable Development summarises the key findings of various studies that show the significant positive impact a circular economy could have on both GDP and job creation. Additionally, a recent study by the Global Alliance for Incinerator Alternatives (GAIA) found that for every 2 jobs in landfilling or incineration, there is potential instead to create 7 jobs in composting, 115 in recycling, 55 in remanufacturing, and 404 in repairing following a zero waste and circular economy approach.

Apart from jobs, a circular economy can unlock an entirely new approach to
how consumers interact with goods and services. For example, the value and
potential of a service-based (as opposed to ownership-based) sharing
economy for things like cars, appliances etc. can not only produce much
better environmental outcomes through incentivising high-quality and
durable goods, but also bring social outcomes by promoting equity of access
for those that might otherwise struggle to afford or use low-emissions
technologies.



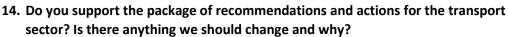
#### The food system

- We would like to see more specific recommendations that consider how the food system in
  Aotearoa can be adapted for a more equitable, inclusive and well-planned transition. This includes
  considering how increasing decentralised local food production can reduce emissions and waste
  due to shorter supply chains, as well as other co-benefits such as community food resilience and
  food sovereignty, carbon sequestration via regenerative urban farming and more.
- We must also change what we grow in Aotearoa without reconsidering our heavy reliance on export-oriented sheep, beef and dairy farming, we will continue to rely on imports of plant-based produce, reducing our food resilience and missing opportunities for diversification of farming.
- Low-income households, typically are not able to take advantage of many of the technology and services created to move NZ to a more efficient and low carbon/electric economy. Indeed the architects of these services and technology are not vulnerable, and thus without meaningful and genuine consultation and engagement with low-income households and/or agencies who work with/represent them, there is risk these households will have poor outcomes. The CCC Advice covers the main themes are we are pleased this has been considered in advice to government. However, we outline some of key concerns with practical examples below:
- Energy hardship is a material concern. If the key drivers of energy hardship are not carefully considered and address, this may increase during the carbon transition. Energy hardship is a combination of three specific factors poverty/income; housing/appliance quality and efficiency; and cost of energy. Policy and programme responses must consider holistic solutions that address all three components. Simply providing untargeted financial support (such as Winter Energy Payment) or insulation/heating subsidies (Warmer Kiwi Homes) may yield no net benefits if energy costs are high. Conversely if energy costs are low but heating devices and appliances are inefficient, higher carbon emissions may result. 1 We recommend in-depth consultation with those at the coal face to create effective interventions and programmes.
- We consider that energy retailers have a critical role to play being the intermediaries between carbon emissions generation and the end user. Additional requirements (ideally mandatory) that strengthen the Electricity Authority's Consumer Care Guidelines 2 that focus on energy retailer behaviours towards vulnerable households would be an effective mechanism. Prescriptive rules for retailers in how to effectively reduce energy use, emissions and improve energy efficiency would recognise the critical role retailers play in household emissions. This could extend to compliance with fuel switching deadlines and EV charge points or EV incentive tariffs and time-of-use metering.

We also suggest the following general principles to support the Commission's recommendations for a transition:

- Adopting social procurement to help ensure benefits of transition are equitable.
- Provision of small business support (mentioned later in the advice)
- Potential for job creation in support / consultancy services in the transition to CE; coaching, mentoring, innovation funding.

- Putting in place systems for knowledge sharing across Aotearoa localised approach good but also want to share resources.
- Support for education of adults need this to progress change, lag time before changes in school education systems will feed through.





Support some of the actions

The approach of prioritising the electrification of the private vehicle fleet will result in the offshore manufacture and import of far more vehicles and large, lithium-ion batteries than are necessary to meet New Zealand's transport needs than if we were to focus on a sharing/service model for EVs and an expanded public transport system.

We already have sharing and leasing models in Aotearoa that should be supported. As a company we make use of MEVO and are currently trailing the system to replace the need for ownership of vehicles for our home energy assessors. Many light goods/car journeys can be replaced by e-bikes for short journeys. We use an e-bike for central business district transport and make use of NoCarCargo to transport goods to our customers. There are many co-benefits to taking more cars off the roads, not least that it frees up space used for car parking for other beneficial uses like greenspace and cycle/walking.

With an aging population, most of whom own vehicles that are used infrequently, there is a real opportunity to promote the transition from private vehicle ownership to active transport, and car share models for the over 65s.

The commission hasn't been strong enough on moving away from investment in roads. Any proposed investment in infrastructure should have a climate lens and look at whole life carbon emissions.

There must be investment in integrated public transport and electrification of freight transport infrastructure, to replace car journeys, road freight and short haul flights. The current rail route from Wellington to Auckland could replace a significant number of flights if it was fit for purpose. We need to do more than 'encourage' to implement first and last kilometre travel solutions in their transport networks. It should be a right that all school children have access to a public transport solution to get to school.

## 15. 15. Do you support the package of recommendations and actions for the heat, industry and power sectors? Is there anything we should change and why?

Push for more support for community owned solar and wind generation – just transition.

Smart grid management – push "Thundergrid" type technologies.

Ensure grid connection no a barrier to adoption. Could ref issues Sustainability in Brewing group have had with their solar projects.

16. Do you support the package of recommendations and actions for the agriculture sector, and is there anything we should change?

No response.

17. Do you support the package of recommendations and actions for the forestry sector? Is there anything we should change and why?

No response

18. Do you support the package of recommendations and actions for the waste sector? Is there anything we should change and why?

Support some of the actions

The Zero Waste Network response fully covers our views on this question.

19. Do you support the package of recommendations and actions to create a multisector strategy, and is there anything we should change?

Support some of the actions

20. Do you agree with Budget recommendation 5 on the rules for measuring progress? Is there anything we should change any why?

Support some of the actions.

The Zero Waste Network response fully covers our views on this question.

21. Do you support our assessment of the country's NDC? Do you support our NDC recommendation?

No response

22. Do you support our recommendations on the form of the NDC?

No response

23. Do you support our recommendations on reporting on and meeting the NDC? Is there anything we should change, and why?

No response

24. Do you support our assessment of the possible required reductions in biogenic methane emissions?

No response

