

A submission to the Productivity Commission's issues paper on a Low Emissions Economy

New Zealand Church Climate Network¹

16 October 2017

Q10: In addition to encouraging the use of electric vehicles, what are the main opportunities and barriers to reducing emissions in transport?

- First of all, the view of this submission is that electric vehicles should be seen as one component of a transformation in transport that includes an emphasis on public transport.
- There is a significant opportunity to transform our urban transportation systems towards active and public transport modes to reduce our transport emissions.
- A large barrier to this is the disproportionate funding of central government money towards road and motorway infrastructure. The Draft Government Policy Statement on Transport for 2018/19-2028/9 sets out up to \$5.89 billion of expenditure on road spending for state highway, regional, and local road improvements over three years to 2021, compared to up to just \$1.545 billion on public transport and walking and cycling improvements over the same period.² This disproportionate funding is compounded by the fact that rail infrastructure is currently not able to be funded through the National Land Transport Fund, despite it clearly being a form of Land Transport.
- A policy shift towards greater central government funding of public and active transport can alleviate the financial limits of local government in funding these modes, allowing extensive, frequent and reliable public transport networks to develop in major urban areas, driving greater behavioural shifts towards sustainable transport.
- Suggested new bullet point: The greater use of electric vehicles for private passenger transport does not of itself represent the needed transformation of our urban transportation systems. However, in conjunction with the rise of 'Transport as a Service' developments such as shared-car schemes, electric vehicles may have a significant role to play in reducing transport emissions.
- Another barrier to reducing emissions is the limitations of the Land Transport Management Act, and there is an opportunity to update this to provide for:
 - Enabling a Regional Fuel Tax
 - Requiring a long-term nationwide transport strategy that takes into account the carbon intensity of particular transport modes.
 - Integrating transport funding decisions with land-use planning much better to maximise the emissions intensity reductions of compact and transit-oriented urban development.

¹ Submission prepared by Alex Johnston (Anglicans Climate Action Network) and Betsan Martin, (Methodist Public Issues Network) with input from Prof. Jonathan Boston (Victoria University of Wellington School of Government) Gray Southon (The New Zealand Religious Society of Friends), Frances Palmer (Pax Christi Aotearoa), Rod Oram and Dr Richard Milne (Anglican Climate Action Network) and an Tim Jones (Coal Action Network Aotearoa). Appendix A gives more information on the Church Climate Network and the network's representatives. .

² Ministry of Transport, *Draft Government Policy Statement on Land Transport 2018/19-2027/28*, p. 26.
<http://www.transport.govt.nz/assets/Uploads/Our-Work/Documents/MOT-GPS-2018-web.pdf>

- Providing much clearer legislative guidance to how rapid transit networks are developed, probably through clearly identifying NZTA as the lead agency for developing those networks, regardless of mode.

Q12: What changes will be required to New Zealand’s regulatory, institutional and infrastructural arrangements for the electricity market, to facilitate greater reliance on renewable sources of energy across the economy?

- Promotion of micro-generation, including the payment of feed-in tariffs that encourage local generation. Review of the electricity market rules that accommodate micro-generation.
- Ensure that battery storage capacity can be integrated into the electricity system.
- We recommend that the government makes EECA the central agency for the organising, advice and establishment of test sites of new technologies for industrial power, funded by government. This would be similar to ECNZ’s role for industrial use of electricity until the mid 1990s.
- The following are three examples of transition pathways for industrial power:
 - Fonterra is our second largest coal burner after NZ Steel. Fonterra uses coal to dry one-third of its milk. It could switch most of this to biomass with the aid of government policy for the forestry sector and Fonterra to develop biomass supplies.
 - Regarding NZ Steel: NZ Steel were the initial pilot plant for LanzaTech’s carbon monoxide capture and conversion to methanol. That pilot plant has been closed. But LanzaTech could be encouraged to come back and work with NZ Steel to install a commercial scale plant.
 - Other areas of power for industrial heat and processing: there is a lot of technology developing - for example PV storage and demand management to displace some coal and gas burning.

Q15: What are the main opportunities and barriers to reducing emissions in industrial processes (such as the production of steel, aluminium and cement) and in product use (such as the use of hydrofluorocarbons in refrigeration and air conditioning equipment)?

- Ensure the disposal of refrigerants is effectively managed, including the work of the Trust for the Destruction of Synthetic Refrigerants is supported to ensure a high level of capture.³ This needs assurance that refrigerant and air conditioning equipment is managed by properly qualified staff and the importance of the process appreciated by allied industries such as construction.
- Encourage industrial heat plant to shift away from using fossil fuels and towards using renewable energy sources (e.g. wood waste) wherever possible. (See also Q12, bullet point 3, above).

Q19: What type of direct regulation would best help New Zealand transition to a low-emissions economy?

- More stringent vehicle emissions standards applied to all new vehicles, in line with the European Union 6 standard.
- an increased fuel tax to reflect the environmental burden of carbon release.

³ The Recovery Trust, <http://www.refrigerantrecovery.co.nz/>

- Setting a date for banning the sale of new cars with internal combustion engines from, say, 2025 (Norway) or 2030 (India).⁴
- A moratorium on new coal mines, and hydraulic fracturing sites and deep sea oil drilling to set the economy in line with the global carbon budget allocation that recognises that, globally, a third of oil reserves, half of gas reserves and over 80 per cent of current coal reserves should remain unused from 2010 to 2050 in order to meet the target of 2 °C.⁵
- A moratorium on expansion of existing coal mines.
- Redirect the irrigation fund to a Transitions fund. Irrigation funding currently supports intensified dairying and agricultural practices that are contributing to the high profile of NZ's agricultural emissions from methane/ CH₄, as well as to water degradation. An alternative to the Irrigation fund is an Agriculture Transition fund to support diversification transitions in agriculture to environmentally responsible farming.

Q20: Acknowledging the current review, what changes to the New Zealand Emissions Trading Scheme are needed if it is to play an important part of New Zealand's transition to a low-emissions future?

The Network would first raise the point that there is contention whether Emissions Trading Schemes are the most effective way of pricing carbon emissions, compared to a more direct carbon tax or levy on pollution. The overall aim should be for stronger political consensus and stable policy. The key issue is emissions quantity and price, not necessarily the specific policy instruments used to control them.

A Carbon Tax or emissions charge at the source of pollution, and returning the revenue to the public as proposed by the Green Party is a viable alternative.⁶ Taxing pollution rather than work is potentially more acceptable to a broader public base, less complex and thus not as subject to small technical changes that can be made to undermine it by governments unwilling to effectively price carbon.

Alternatively, there are a number of different options for amending the NZETS. The critical goal must be to increase the scheme's efficiency, environmental effectiveness and overall fairness. How, exactly, this is best done is a matter of debate; there are also timing and transitional issues. One approach would be to implement the following:

- A price floor and price ceiling, that increase over time, with the levels set clearly in advance to provide certainty for businesses, particularly to enable the forestry sector to have confidence in their investment decisions which would encourage an increase in forestry planting of marginal land.

⁴ CNN, 'These Countries Want to Ditch Gas and Diesel Cars', <http://money.cnn.com/2017/07/26/autos/countries-that-are-banning-gas-cars-for-electric/index.html>

⁵ Christophe McGlade and Paul Elkins, "The geographical distribution of fossil fuels unused when limiting global warming to 2 °C", *Nature* 517 (2015), pp.187-190.

⁶ Green Party of Aotearoa New Zealand, *Climate Protection Plan*, p. 8. <https://www.greens.org.nz/sites/default/files/policy-pdfs/climate%20protection%20plan%20policy%20paper%20FINAL.pdf>

- A freeze on the free allocation of credits for one year to use up a large share of the ‘bank’ of domestic credits gained by trade-exposed industries between 2012-2015 while they were able to purchase foreign carbon credits.⁷
- gradually bringing agriculture and other previously exempt industries into the Scheme by 2021, with a lower price set for methane emissions to allow for the differing gas lifetime between CO₂ and CH₄. This would encourage land use decisions to take into account the relative emissions-intensity of different uses of the land.
- Continuing to exclude the purchase of foreign carbon credits for the foreseeable future.

For the differentiation of different gases, the Network acknowledges that this is a contentious matter. Key matters for consideration are

- 1) the time-frame for analysis (the longer the timeframe -- e.g 200 rather than 100 years -- the lower the global warming potentials of CH₄, and there is no 'correct' timeframe);
- 2) the desirability of slowing the pace of global warming (regardless of the final stabilization point);
- and 3) the need to avoid any increase in CH₄ emissions.

We recommend that the Productivity Commission give serious attention to the case for differential targets for short-lived and long-lived gases, to work towards a point where the ETS applies to all significant emissions to ensure that industries have an incentive to address them, and the price needs to adequately reflect the real long-term costs of the emissions to the environment and to society in the future. Any exemptions, e.g. to compensate for unfair trading, need to be explicit.

The ETS also needs to be structured and managed with careful attention to the World Bank: Emissions Trading in Practice which emphasised the need to support the ETS with a wide range of complementary policies.⁸

Q23: How can New Zealand harness the power of financial institutions to support a low-emissions transition?

- fully divest the New Zealand Superannuation Fund and the Accident Compensation Commission Fund from companies whose primary business is in fossil fuel exploration and extraction, to accelerate the capital investment shift towards renewable energy, and set an example to other major investors and financial institutions.
- reinvesting the divested funds towards renewable energy projects or green bond development projects
- Establish mandatory public reporting of financial institutions and companies to incorporate climate-related risks and liabilities. Investigate the adoption of the recommendations of the Taskforce on Climate-Related Financial Disclosures in Financial Reporting regulations.⁹

⁷ Morgan Foundation, “How Do We Save the Emissions Trading Scheme?” <http://morganfoundation.org.nz/how-do-we-save-the-emissions-trading-scheme/>

⁸ World Bank Group, *Emissions Trading in Practice*, p. 23.

<https://openknowledge.worldbank.org/bitstream/handle/10986/23874/ETP.pdf?sequence=11&isAllowed=y>

⁹ Recommendations of the Taskforce on Climate-Related Financial Disclosures (June 2017), <https://www.fsb-tcfd.org/publications/final-recommendations-report/>

Q25: In addition to “core” climate policies and institutions, what other changes to policy settings or institutional frameworks are required to effectively transition New Zealand to a low-emissions economy?

- The Treaty of Waitangi is relevant to Iwi/Māori, both at the marae and hapu level, and at the corporate and economic level. The Māori asset base is estimated to be near \$40 billion, with businesses of Māori employers at \$21 billion, self-employed business at \$5.4 billion, Māori entities \$6.7 billion and Trusts and incorporations at \$4 billion.¹⁰

Infrastructure, investment and policy for transitions, and the establishment of institutions pertaining to climate transitions should be done with ethical consultation with Iwi/Māori, while institutional arrangements such as a Climate Commission should be designed and implemented with representation of Iwi / Māori.

- Apply Article 12 of the Paris Agreement on Education, Training and Public Awareness. This will require bringing climate change education and an understanding of the transition we will need to undergo, into the New Zealand curriculum, and into the community through public awareness programmes.¹¹ Building capability to support, engage with and contribute to transitions requires building capacity for civic responsibility, as well as to ensure capability of the workforce to participate in this transition now and in the future.

While the NZ Curriculum framework allows for climate education, there is currently no preparation in teacher training nor provision of professional development for climate change education¹². Climate Change Education is a matter for formal education as well as the informal sector. Currently there is more being done in education via industry (eg Schneider Foundation with its programme on energy knowledge and leadership¹³) and via NGO education and activist work eg Generation Zero, and 350.Org).

There is strong potential for climate education in the framework of Global Citizenship Education. Key premises for Global Citizenship Education include:

- Enabling a transition to greener economies and societies
- Equipping learners with skills for ‘green jobs’
- Motivating people to adopt sustainable lifestyles
- Empowering people to be global citizens who assume and engage in active roles, both locally and globally to face and resolve global challenges and ultimately to become proactive contributors to a just, peaceful, tolerant, inclusive, secure and sustainable world.¹⁴

¹⁰<http://www.mbie.govt.nz/info-services/infrastructure-growth/Māori-economic-development/the-Māori-economy>

¹¹ UNFCCC, *Paris Agreement*, art 12.

¹² Eames, C. (2017) Climate Change Education in New Zealand. *Curric Perspect* 37:99-102

¹³ <https://www.schneider-electric.com/en/about-us/sustainability/foundation/>

¹⁴ UNESCO Roadmap for Implementing the Global Action Programme on Education for Sustainable Development, UNESCO 2014

- factoring the emissions intensity of a particularly economic activity into investment decision making both in the public and private sector - e.g. requiring all large new investments to take into account the goal of being carbon neutral by 2050. All government infrastructure spending and economic assessments for notified consents under the Resource Management Act to assume a long-term carbon price of at least \$60 per tonne of CO₂ and rising in line with the social cost of carbon.
- Repealing section 70A of the Resource Management Act, that currently prevents regional councils from taking into account the effects of a discharge of greenhouse gases on climate change when making a rule regarding the discharge of such emissions.
Make other amendments to the RMA to ensure that the effects of proposed activities on climate change are fully considered by decision-makers under the Act.
- Trade agreements between NZ and other countries must not be allowed to undermine nation-wide or local climate-friendly policies, such as a moratorium on offshore oil drilling.
- Regulating farm waste dumps.
- Along with policy in specific sectors, transitions to a net zero carbon economy require an integrated approach across all policy settings, so that economic policy, environmental standards, agriculture, land use and social policy, including policy to achieve economic equity sufficient for wellbeing and participation are mutually reinforcing.
- Water policy is closely tied to NZ's agricultural profile emissions and emissions profile. There are a range of proposals to transition to the production of crops and protein that is integrated with the conditions suited to the sustainability of NZ soil health, high quality water standards, and forestry.
- Development of jurisprudence. There is a pressing need in NZ and internationally for policy on the governance of earth's global commons¹⁵. Examples of law to govern the global commons include public trusteeship and legal personhood. There is scope in Māori and indigenous law to offer frameworks for earth jurisprudence with a priority on integrated governance. Similarly the agenda of Sustainable Development Goals offers scope for legal development. The proposed Climate Commission may have a special task of commissioning such research.
- Further inquiry into exemplary policy beyond that of the UK Climate Change Act, especially France, Costa Rica, Philippines.¹⁶
- New Zealand's climate change policy needs to be aligned with policy that considers ourselves as a Pacific Nation in support of the Pacific Islands. This means being strongly oriented to a 1.5 degree target, and developing policy that is hospitable to pacific climate refugees.

¹⁵ Martin, B., Te Aho, L., Humphries, M. (eds) (2018) *Law and Responsibility for Earth's Global Commons*. Routledge. Forthcoming.

¹⁶ Martin, B. (2016) Case studies of Climate Policy and Education for Transitions. www.response.org.nz

Q27: What approaches, such as regulatory frameworks or policy settings, would help embed wide support among New Zealanders for effective reduction of domestic greenhouse gas emissions?

- A regulatory framework such as a Zero Carbon Act as advocated by Generation Zero, that requires the setting of 5 year carbon budgets, with regular reporting to ensure transparency in emissions profile. Five yearly carbon budgets helps to place climate policy outside of the 3 year electoral cycle, reducing the impact of the ‘political economy’ on climate policy fluctuation.¹⁷
- Another element of the Zero Carbon Act, establishing an Independent Climate Commission, provides an accountability mechanism for the public to be able to have a clear understanding of how the government is progressing the country's transition to a low emissions economy. The Church’s Climate Network proposes that a Treaty of Waitangi framework for such a Commission be considered
- Introduction of a ‘Duty of Vigilance’ Law (see Q28 below, bullet point 5).

Q28: Is New Zealand’s current statutory framework to deal with climate change adequate? What other types of legislation might be needed to effectively transition towards a low-emissions economy?

- The current statutory framework is not strong enough and leads to New Zealand’s response to climate change being subject to too much political influence.
- The Network is supportive of the need for a Zero Carbon Act along the lines advocated by Generation Zero to strengthen New Zealand’s climate mitigation efforts, and we agree with Generation Zero’s submission on this point.¹⁸
- There is also a need to provide local government with greater scope to consider climate change in their planning and regulatory processes, for example by allowing an activity’s contribution to climate change impacts, whether domestically or overseas through its end use, to fall under the scope of an ‘environmental effect’ when a local authority considers granting a resource consent.¹⁹
- There is also a need for a new regulatory and funding regime to manage climate change adaptation in a cost-effective and equitable manner, pre-funding at least a modest proportion of future costs of climate change adaptation. One option suggested by Jonathan Boston, a member of the Church Climate Network, and Judy Lawrence, Victoria University Climate Change Research Institute, is legislation to establish a mechanism – perhaps similar in concept to the New Zealand Superannuation Fund – to help cover future climate-related liabilities.²⁰
- France passed the Law on the Duty of Vigilance In 2017, to strengthen implementation of Corporate Social Responsibility. The law is a legally binding obligation to identify and prevent adverse human and environmental impacts by the company, subcontractors and suppliers.

¹⁷ Generation Zero, Zero Carbon Act Summary. <https://zerocarbonact.nz/zca-summary/>

¹⁸ Ibid.

¹⁹ Resource Management Act 1991, s 104(1)(a). Climate change impacts for the end use of coal were not allowed to be considered in a resource consent decision following the Supreme Court decision of *West Coast ENT v Buller Coal Ltd* [2014] 1 NZLR 32.

²⁰ Jonathan Boston and Judy Lawrence, “The Case For Climate Change Adaptation Funding Mechanisms” (Victoria University of Wellington and New Zealand Climate Change Research Institute, August 2017). <http://igps.victoria.ac.nz/publications/WP/WP17-05-Climate-change-adaptation.pdf>

Companies covered by the law will assess and address the risks of serious harms to people and the planet, and report under annual, public vigilance plans. Liability would apply when companies default on their obligations, including the absence of a plan or faults in its implementation. Affected people and communities are empowered to hold companies accountable. Companies are required to make vigilance plans and report on the.²¹

Q29: Does New Zealand need an independent body to oversee New Zealand’s domestic and international climate change commitments? What overseas examples offer useful models for New Zealand to consider?

- Yes. The UK Climate Change Commission offers a good example of a model for New Zealand to consider, providing advice on the domestic mitigation targets that should be set and reporting annually on the progress towards meeting those efforts, set through ‘carbon budgets’, as detailed in the Parliamentary Commissioner for the Environment’s most recent report.²²

Q32: What should be the mix, and relative importance of, different policy approaches (such as emissions pricing, R&D support, or direct regulation) in order to transition to a low-emissions economy?

- The bottom line should be on meeting our responsibility to transition to a low-emissions economy (with carbon neutrality by 2050) in the most equitable and cost-effective way possible, and in a way that properly internalises the costs of continuing down an emissions-intensive pathway.
- Where direct regulation is able to achieve targeted emissions reductions from particular sectors in a way that is not inequitable to low-income groups, that should be adopted.
- The possibility of future technology developments through R&D to provide emissions reductions, such as research into a methane vaccine, should not detract from the need to confront and change the approach of emissions intensive industries such as agriculture now.

Q33: What are the main co-benefits of policies to support a low-emissions transition in New Zealand? How should they be valued and incorporated into decision making?

- Key co-benefits include: a clean environment, public health improvements, resilience and social cohesion, liveable cities and industries to take us into the future.
- Normalising domestic and business low-carbon behaviours
- NZ’s *international reputation* (on all points mentioned), and the trade and economic consequences of this.

²¹<https://business-humanrights.org/sites/default/files/documents/French%20Corporate%20Duty%20of%20Vigilance%20Law%20FAQ.pdf>

²² Parliamentary Commissioner for the Environment, *Stepping stones to Paris and beyond Climate change, progress, and predictability* (July 2017), p. 14. <http://www.pce.parliament.nz/media/1714/stepping-stones-final-web.pdf>

- The concept of ‘Just Transitions’ refers to labour market policies which facilitate transitions from employment in industries using fossil fuels and producing Greenhouse Gas emissions, to employment in ‘clean’ industry. Just Transitions involve recognition of skills and transferability of these to other industries, along with provisions for income support and training for new work and for career changes.²³

Q34: Who are the most important players in driving forward New Zealand’s transition to a low-emissions economy?

- Policymakers: Central and local government
- Experts: Scientists, academics, universities, economists, and monitoring organisations such as Enviro-mark.
- Stakeholders: iwi, industry and business leaders, community leaders, including cultural and religious leaders, environmental NGOs, trade unions and individual citizens since they have a collective climate impact.

Q35: What measures should exist (and at what scale and duration) to support businesses and households who have limited ability to avoid serious losses as a result of New Zealand’s transition to a low-emissions economy?

- The emphasis should be on a just transition to support workers as the economy undergoes its transition. Key measures in a just transition, as taken from the International Trade Union Confederation include²⁴:
 - “Invest in jobs – decent work opportunities in sectors which reduce emissions and help communities adapt to climate change;
 - Respect the contribution that workers in fossil-fuel industries have made to today’s prosperity and provide them with income support, retraining and redeployment opportunities, as well as secure pensions for older workers;
 - Invest in community renewal to gain the hope and trust of regions and townships at the forefront of the energy transition, industrial transformation or climate impacts;
 - Support innovation and technology sharing to enable a rapid transformation of energy and manufacturing companies along with all other economic sectors;
 - Be based on social dialogue with all relevant parties and include collective bargaining with workers and their unions for workplace change, resource productivity and skills development.”
- Another measure, as suggested by Coal Action Network Aotearoa, would be to set up a unit within MBIE to assist coal mining communities with the transition to a new economy. This unit should help with research, resource the process of community planning, and provide people on

²³ For example see Coal Action Network ‘Jobs After Coal’.

https://coalactionnetworkaotearoa.files.wordpress.com/2015/05/jac_2015_final-low-res2.pdf

²⁴ International Trade Union Confederation, *Climate Justice Frontline Briefing* (2017), p. 6. <http://www.ituc-csi.org/just-transition-where-are-we-now>

the ground who can give guidance and share information with those planning an alternative future.²⁵

Q36: What are the essential components of an effective emissions-mitigation strategy for New Zealand that will also be economically and politically sustainable?

- The objective:
 - An emissions reduction strategy should have principles of fairness and equity in a global context, consistent with the common but differentiated responsibility framework adopted under article 4 of the United Nation Framework Convention on Climate Change, at its core. It should recognise the need for New Zealand as a developed country to take a lead in climate change mitigation.²⁶
 - A strategy should not solely be based on a pathway of cost effectiveness which does not include equity and fairness assumptions. Cost-effectiveness itself is not a measure of equity and fairness of effort and hence of allocation of emission effort, but rather an economic principle to be applied after an emission effort allocation has been made.
 - A pathway consistent with the Paris Agreement goals of net-zero emissions before 2100, peaking of global emissions as soon as possible, and a warming of either 1.5 °C or well below 2 °C should, if allocated based on an equitable share of global emissions allocation, lead to of New Zealand aiming to achieve net zero GHG emissions by 2050 on its own account.²⁷
- The Strategy elements: The Church Climate Network agrees with the key elements of the Climate Consensus Coalition’s Action Plan:²⁸
 - “To ensure continuity of commitment, political cross-party agreement is needed on an emissions reduction pathway, consistent with delivery of the primary objective [of net zero GHG by 2050]. The form of this pathway will be based on fairness, transparency and intergenerational justice. [The work of Globe NZ could be used as a cross-party mechanism to build and sustain a political consensus on this pathway.]
 - Planning the remaining carbon allocations will be based on a comprehensive inventory of New Zealand's GHG contributions - including agriculture, all industries, and relevant international travel.
 - We must apply set timeframes, milestones, progress-monitoring and revision, and agreed methods of measurement. The Coalition recommends setting ambitious, annual and 5-year emissions budgets (i.e. not just fixed-point emissions-reduction targets) covering all GHGs up to four budgets ahead (i.e. looking out to 20 years). For this there may be advantages to treating long-lived and short-lived GHGs separately.
 - The plan will be comprehensive and fully integrated across policies such as energy, transport, urban form, economy, agricultural and forestry, engaging central and local government, business, and community.

²⁵ Coal Action Network Aotearoa, *Jobs After Coal* (2015), p. 6.

https://coalactionnetworkaotearoa.files.wordpress.com/2015/05/jac_2015_final-low-res2.pdf

²⁶UNFCCC, art 4. <https://unfccc.int/resource/docs/convkp/conveng.pdf>

²⁷ Paris Equity Check, <http://paris-equity-check.org/#open-graph>

²⁸ Wise Response Society, “Climate Consensus Coalition Aotearoa Statement and Action Plan”, <https://drive.google.com/file/d/0B-Zk3bgtL-q8VVh6ZDhVaW1sMjA/view>

- The preferred emissions reduction pathway must align with peer-reviewed science and incentivise all citizens and businesses to do all they can to reduce their carbon footprints. Once a reduction plan is formulated, it will be made public, with the rationale for the formulation clearly set out.”

Q37: Should New Zealand adopt the two baskets approach? If so, how should it influence New Zealand’s emissions reductions policies and long-term vision for the future?

- Yes, as it enables us to better consider the true impact of short and long term gases. It should be noted that as the current equivalence is calculated over a 100 year period, the impact of the short term gases is concentrated at the beginning of that period. Hence, in the short term their impact is very much higher still. Because of the risk of early tipping points, such as loss of arctic ice or melting of arctic permafrost it makes the reduction of short term gases still crucially important.

Q38: How should the issue of emissions leakage influence New Zealand’s strategy in transitioning to a low-emissions economy?

- the prospect of emissions leakage should not be a reason for watering down the ambition of New Zealand’s emissions reduction strategy, falling into the trap of the prisoner’s dilemma (the justification for lack of acting due to the fact that other countries are not acting). If New Zealand takes an innovative and ambitious strategy, this provides an opportunity to increase the productivity and value of particular industries, such as shifting to a quality not quantity approach to agriculture, and repurposing land use to maintain profitability.
- New Zealand’s primary focus and obligation is to it’s own commitments and responsibilities under the Paris Agreement. As Vivid Economics’ Report identifies, in a world committed to the Paris Agreement, trade-exposed industries will need to change to reduce their emissions at some point, and could be subject to quite disruptive change, and so an ambitious plan for transforming these sectors is not only good for meeting our obligations but can provide “an internally coherent strategy for building New Zealand’s economic resilience in a low-emissions world. It also need not compromise New Zealand’s long-run economic performance”.²⁹
- The matter of emissions leakage is absent from the discussion surrounding New Zealand emissions. New Zealand plays a role in producing emissions that are not accounted for under New Zealand’s current greenhouse gas inventory due to being exported elsewhere - for example, coal exported for the manufacture of steel, and oil refined and extracted in New Zealand that is sent offshore. If emissions leakage is taken into account, these activities that are incentivised by New Zealand’s policy framework need to be taken into account.

Q39: What do you see as the main benefits and opportunities to New Zealand from a transition to a low-emissions economy?

²⁹ Vivid Economics, *Net Zero in New Zealand*, p. 18 <http://www.vivideconomics.com/wp-content/uploads/2017/05/Net-Zero-in-New-Zealand-Summary-Report-Vivid-Economics.pdf>

From a strategic point of view, a comprehensive transition to a low-emissions economy presents two main benefits :

- “‘Doing the right thing’ and being seen to do so. This matters for trade and for being a good global citizen. We’d be foolish to dismiss this, especially with the renewed international momentum embodied in the Paris deal.
- Getting ahead of the curve in terms of the economic transition that New Zealand is having to make anyway, sooner or later. For example, if we can innovate in agricultural GHG-cutting biological technology there could be big payoffs available.”³⁰

From a practical perspective, the IPCC has identified that climate change mitigation can have significant co-benefits for a range of other social objectives, from energy security, air quality, efforts to address ecosystem impacts, income distribution, labour supply and employment and urban sprawl.³¹ Some of the major benefits and opportunities for New Zealand include:

- Health: through residential insulation and energy efficiency improvements, households are warmer, drier and lower cost energy needs.
- Wellbeing/quality of life: building low carbon cities through sustainable transport and higher density, well connected communities creates more ‘liveable’ cities, giving greater community connectivity, access to opportunity and healthier and more active lifestyles.
- Environmental co-benefits: Improving our waterways as part of a change in land use and more sustainable agriculture, and greater air quality in urban areas

Q40: What does your long-term vision for a low-emissions economy look like? Could a shared vision for New Zealand be created, and if so, how?

- As communities of faith, our religious convictions and cosmological narratives tell us that this earth and the whole universe are gifts that we have received from the spring of life, from a spiritual dimension, or God.
Spirituality is a dimension that encompasses different religious faiths as well as values that express human interdependence with earth and all forms of life. The prophetic encyclical, *Laudato Si* by Pope Francis considers an integrated approach to human relationship with the biosphere from a theological perspective. *Laudato Si* takes an approach of shared responsibilities for stewardship and care for generations to come - for humankind and for all forms of life. Such values are also expressed in various Charters, such as the Earth Charter, and Declarations, eg the Declaration of Human Responsibility for an Interdependent World.³²

It is our obligation to respect, protect and sustain gifts of earth and creation, by all means. Thus we express the vision of an economy where New Zealanders live in respect and harmony with the earth, our common home. By forging good (social, environmental, economic and political) relationships with each other and with nature, we enhance our capacity for peace and

³⁰ Ralph Chapman, “Comments on the Paris Climate Change Outcome”, Bridget Williams Books, <http://bwb.co.nz/news/blog/comments-paris-climate-change-outcome-ralph-chapman>

³¹ IPCC, “Future Pathways for Adaptation, Mitigation and Sustainable Development”, in *Climate Change 2014 Synthesis Report Fifth Assessment Report* at 3.5. http://ar5-syr.ipcc.ch/topic_pathways.php

³² http://www.alliance-respons.net/IMG/pdf/eng_udir_decl_interdependence_responsibility17.pdf

transformation. This vision includes where there is bold support for those who have less resources and capacity, starting with the most vulnerable; those in New Zealand now, and those who will migrate or seek refuge here due to climate change.

- Collectively, we must ensure genuinely sustainable economic management and development and a focus on growing our comprehensive wealth (including all forms of capital), not focusing exclusively on a flow measure like GDP.
- As part of this, New Zealand should develop a thriving, resilient, and community-based economy focussed on serving and enjoying the local environment and communities. Energy systems, supply chains, food systems and consumption patterns should be local and fully sustainable, with far less reliance on overseas imports. The domestic industries that support this low emissions economy would be a major part of the economy.
- The United Nations Sustainable Development Goals provide a helpful start for gaining wide-reaching support and understanding of such a vision for the New Zealand economy.³³

³³ UN Sustainable Development Goals, <http://www.un.org/sustainabledevelopment/sustainable-development-goals/>

Appendix A.

The New Zealand Church Climate Network

The New Zealand Church Climate Network is a network of representatives from a range of Christian denominations and faith-based organisations who are active on climate change issues. The Network is an unofficial grouping, and does not necessarily represent the views of its member organisations.

Groups and organisations represented in the Network are:

- *Anglicans Climate Action Network - Auckland*
- *Methodist Public Issues Network*
- *Caritas Aotearoa New Zealand*
- *Presbyterian Church of Aotearoa New Zealand*
- *The New Zealand Religious Society of Friends (Quakers)*
- *Tearfund New Zealand*
- *A Rocha Aotearoa New Zealand*
- *Anglican Diocese of Wellington*
- *Anglican Church of Aotearoa New Zealand and Polynesia, Social Justice Portfolio Group on the Environment*
- *Salvation Army New Zealand, Fiji and Tonga Territory, Social Policy and Parliamentary Unit*