

A SUBMISSION TO THE LOW-EMISSIONS ECONOMY INQUIRY

NEW ZEALAND PRODUCTIVITY COMMISSION

From Graham Townsend

Q1. How can the Commission add the most value in this inquiry?

No comment

Q2. Chapter 3 of this issues paper mostly looks at ways to reduce emissions directly at their source. What other approaches would help identify opportunities to effectively reduce emissions?

Given that the global allowable GHG budget is limited by the need to keep GMTR below 2°C above the pre-industrial level, further exploitation of New Zealand coal fields, as well as all oil-exploration, should be ruled out forthwith, unless those resources are entirely (and transparently) used for processing into petrochemical feedstock rather than for burning as fuel.

Q3. To what extent is it technically and economically feasible to reliably measure biological emissions at a farm level?

Direct measurement or accurate estimation of on-farm emissions appears impractical and likely to lead to endless disputes. However, to send the right signals and encourage a shift into less GHG-intensive forms of agriculture, some sort of indirect or proxy measure appears to be essential.

Q4. What are the main opportunities and barriers to reducing emissions in agriculture?

Without a significant reduction in national livestock numbers, particularly cattle, any measures intending to reduce agricultural GHG emissions are likely to have very limited effect. Therefore incentives and/or penalties must be implemented to encourage diversification into low GHG-emitting land-use including horticulture and/or forestry.

The current decline in forestry must be reversed. While mature forests are effectively carbon-neutral, a major programme of planting over the next, crucial decades will enable NZ to sequester a considerable amount of carbon. Once again, this cannot simply be left to the invisible hand of the market.

While Pinus radiata is fast-growing and a rapid way of sequestering carbon, wilding pines are a serious problem in some parts of the country and planting must include measures to prevent uncontrolled spread.

Q5. What are the issues for government to consider in encouraging alternative low-emissions land uses?

No comment

Q6. What are the main barriers to sequestering carbon in forests in New Zealand?

No comment

Q7. What policies, including adjustments to the New Zealand Emissions Trading Scheme, will encourage more sequestering of carbon in forests?

No comment

Q8. What are the main barriers to the uptake of electric vehicles in New Zealand?

The current free-market approach means that EV choice is extremely limited. Range anxiety is a minor issue, especially for 2-car families where one car is often used entirely for urban trips such as shopping or commuting. Some countries have chosen to set a date to ban the sale of fossil-fuelled cars entirely. This should certainly be considered in New Zealand.

Car companies and consumers would benefit from long-term planning and clarity.

Q9. What policies would best encourage the uptake of electric vehicles in New Zealand?

From 2019, a carbon tax should be introduced to discourage fossil-fuelled car use.

Introduce differential pricing for EV annual registration fees.

All new government fleet vehicles to be EVs within 5 years, i.e. by the end of 2022.

Require that battery recycling facilities be available and investigate the options for public-private recycling partnerships.

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

Transport options can no longer be left to the free market. Current public transport options are suboptimal. Income from carbon pricing should therefore be partially directed towards subsidies for public transport, especially in areas where lower patronage currently renders services marginal or unprofitable.

Q11. What are the main opportunities and barriers to reducing emissions from the use of fossil fuels to generate energy in manufacturing?

No comment

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?

Despite falling costs for solar PV, the rate of uptake of local and small-scale electricity generation (solar PV or wind) is far too slow. Currently it appears that electricity suppliers are unwilling to buy-back off peak electricity from these small-scale generators. It also appears that, given the current fragmented and privatised nature of generation and distribution, there is little if any national strategy for maximising generation. This is perhaps an inevitable result of the privatisation ideology. It urgently needs to change.

Q13. What evidence is there on the possible physical effects of future climate change on sources of renewable energy in New Zealand, such as wind, solar and hydro power?

No comment

Q14. Apart from the regulation and operation of the electricity market, what are the main opportunities and barriers to reducing emissions in electricity generation?

No comment

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)?

At-source carbon-capture and sequestration technologies need to be urgently investigated for major CO₂ emitters including aluminium smelting and cement manufacture.

Q16. What policies and initiatives would best promote the design and use of buildings that produce low greenhouse gas emissions?

Rather than simply leaving building innovation to the private sector, the government needs to actively investigate and promote alternative construction methods., An example would be PV panels as an integral part of cladding rather than as a costly post-construction add-on.

Q17. What are the main opportunities and barriers to reducing emissions in waste?

No comment

Q18. Policies to lower emissions from particular sources, technologies and processes can have interactions with emission sources in other parts of the economy. What are the most important interactions to consider for a transition to a low emission economy?

No comment

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

An effective carbon tax, the proceeds of which would be channelled into R&D, subsidies for public transport, the lowering of registration fees for EVs, and incentives for reforestation schemes and agricultural diversification away from cattle.

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?

Is a carbon tax a better approach than an ETS?

Q21. What type of market-based instruments would best help New Zealand transition to a low-emissions economy?

No comment

Q22. What type of support for innovation and technology would best help New Zealand transition to a low-emissions economy?

Carbon-capture technologies and nuclear fusion as an energy source are both important for our future. To what extent NZ R&D can contribute to either of those is unclear.

Climate engineering on a global scale may ultimately be the only way to keep temperatures compatible with a viable and stable global economy.¹

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

No comment

Q24. What type of alternative approaches (such as voluntary agreements or support for green infrastructure) would best help New Zealand transition to a low-emissions economy?

No comment

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?

No comment

Q26. What are the main uncertainties affecting New Zealand businesses and households in considering investments relevant to a low-emissions future? What policies and institutions would provide greater confidence for investors?

Clarity over long-term government intervention and policy settings will be essential. Achieving that clarity will require multi-party agreement. See answer to Q.40 below.

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?

See Q.40 below

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?

See Q. 36 below

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 - most certainly. A well-staffed and funded parliamentary office, independent of political control, is essential to provide independent policy advice and commentary.

Q30. How can adaptability best be incorporated into the system supporting New Zealand’s low-emissions transition?

No comment

Q31. What types of analysis and underlying data would add the greatest value to this inquiry?

No comment

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?

No comment

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?

No comment

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

No comment

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?

No comment

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

Fossil fuel use is deeply embedded into our current infrastructure and economy. Therefore it is naïve and unrealistic to imagine that we can continue to 'grow the economy' while effectively mitigating GHG emissions, at least in the next few decades. Yet the consequences of inadequate action are extremely serious. AGW is a fundamental and unprecedented challenge to our unspoken assumptions about economic activity and human development, and to the optimistic pronouncements habitually made by politicians.

I therefore submit that a 'free market' approach is entirely inadequate to deal with a long-term existential threat like AGW. I would argue that the current situation is similar to that during WW2 when national economies were of necessity placed on a war-footing, enabling serious government intervention.

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?

No comment

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

No comment

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

AGW has been identified as a major threat to the global economy and world stability by many authorities including the World Bank², IMF³, OECD⁴, Bank of England⁵, UN FAO⁶, UN EP⁷, and the Pentagon⁸. It is therefore not overly dramatic to state that the main benefit to New Zealand of moving to a low emissions economy is our survival as a coherent and stable society.

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?

A shared vision for a long-term low-emissions society is our top priority. Many of the barriers to effective action are psychological at least as much as they are economic or structural. Indeed I submit that the psychological barriers are far more serious.

Why? Because there remains a significant sector of the public who are either (a) deeply (and often wilfully) sceptical of the science, or (b) unaware of the economic consequences, or (c) convinced that any initiatives for climate action are merely a tax-grab, or (d) simply apathetic.

Until this denial, suspicion and apathy is tackled, the sometimes difficult decisions needed to effect positive transformation will continue to be politically unpopular. Hence governments will be reluctant to take the necessary actions.

Therefore we need a government-funded education programme on the reality and likely consequences of AGW. This should run on TV and other mainstream media, in a similar fashion to the programme currently run by the EECA.

A multi-party accord on the urgency of dealing with AGW is essential. The issue is too important for political point-scoring.

Ultimately however it is likely that all of the measures currently under discussion will be insufficient to prevent dangerous and economically disastrous temperature rise. Prof. Jim Flynn from Otago University has authored an excellent, brief and authoritative account of the issues around AGW¹. In it he states (p. 85) "Even the best conceivable emissions cuts will not stop us short of the point of no return, unless they are accompanied by climate engineering to hold the line on temperature."

References next page:

REFERENCES:

1.	<i>No Place to Hide</i> , J Flynn, 2016, Potton and Burton.
2.	World Bank report 2016 (Global Facility for Disaster Reduction and Recovery) https://www.gfdrr.org/sites/default/files/publication/Riskier%20Future.pdf

3.	IMF comments: https://www.imf.org/external/pubs/ft/weo/2008/01/pdf/c4.pdf
4.	OECD: http://www.oecd.org/environment/cc/right-time-for-climate-action-by-simon-upton-2016-04.htm
5.	UN FAO report: http://www.fao.org/3/a-i6030e.pdf
6.	Bank of England warning: http://www.bbc.com/news/business-34396961
7.	UNEP report : http://wedocs.unep.org/bitstream/handle/20.500.11822/10572/EGR_Executive%20summary_EN.pdf?sequence=1&isAllowed=y
8.	U.S Department of Defence: https://www.livescience.com/48295-pentagon-climate-change-roadmap.html