Setting New Zealand's post-2020 climate change target

http://www.mfe.govt.nz/publications/climate-change/new-zealands-climate-change-target-our-contribution-new-international

Submission form

Contact information

Name	Molly Melhuish
Organisation (if applicable)	
Address	[redacted]
Telephone	[redacted]
Email	[redacted]

Introduction

Thank you for taking submissions on new Zealand's climate change target. I wish you could sort submissions by age of the submitter. Young people will experience the adverse impacts that are now inevitable, for most of their lives. It would seem that us retired folk and many youths have the strongest views on the need to reduce global warming emissions.

In contrast, most of New Zealand's decision makers are of a culture that thinks "economics" is of paramount importance, that "fairness" relates to today's voters and businesses, and that the long term future is too far away to worry about. That's wrong.

Please give priority to our youth's submissions - they will be living with your decisions!

Objectives for the contribution

1a. We have set the following three objectives for our contribution:

- **it is seen as a fair and ambitious contribution – both by international and domestic audiences**
- **costs and impacts on society are managed appropriately**

- **it must guide New Zealand over the long term in the global transition to a low emissions world.**

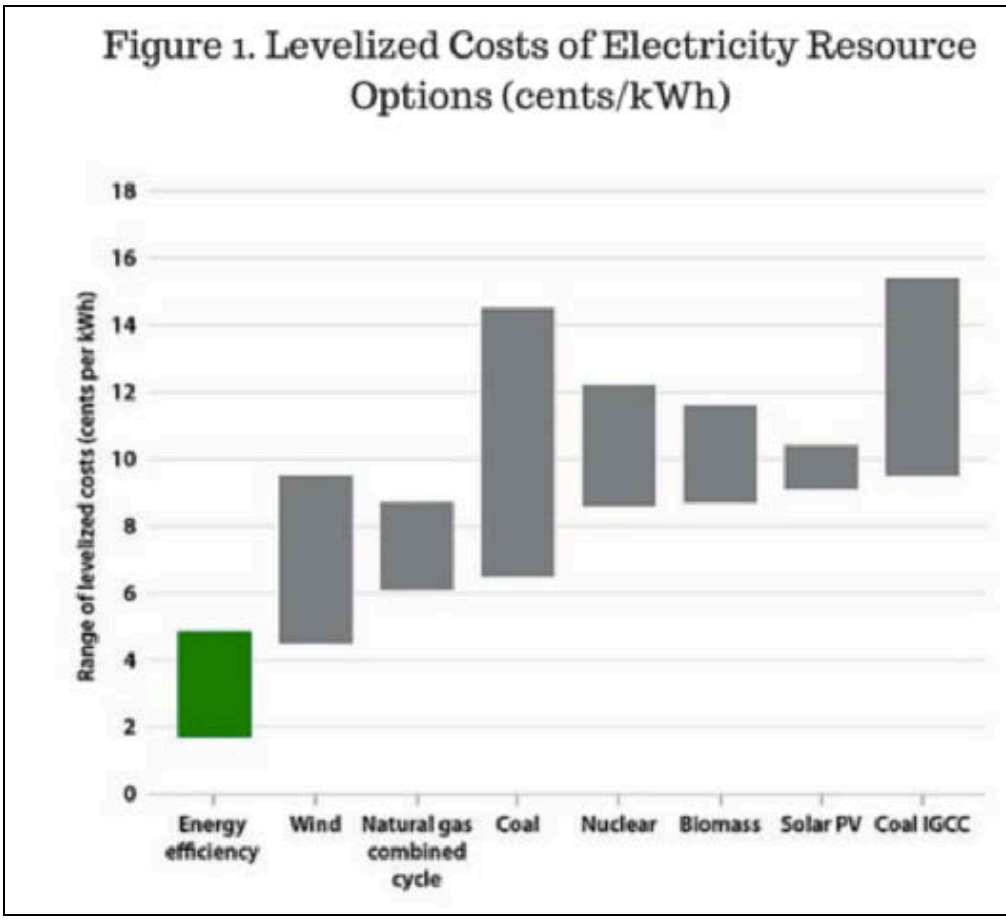
Do you agree with these objectives for our contribution?

☐ Agree with the objective but not the means of implementing, by buying offshore emissions

1b. What is most important to you?

New Zealand's policies should be based on efficiency much more than fairness. We need to incorporate EVERY energy efficiency measure that Is economically sensible, because that is cheapest type of energy "supply" as well as climate mitigation. Household energy efficiency is the one I know most about. (Urban transport and cycling, equally important; others will cover this.)

The ACEEE finds that energy efficiency is by far the cheapest way to reduce emissions from the electricity sector, and renewable generation from wind, the second cheapest . Solar electricity is more expensive. In New Zealand, energy efficency will be much cheaper because It has been so neglected we have mega-tonnes of "low-hanging fruit". And we have a world-class wind resource.



Source: American Council for an Energy-Efficient Economy (ACEEE)

http://www.raponline.org/featured-work/the-clean-power-plan-just-say-no-regrets?utm_source=ZohoCampaigns&utm_campaign=US+RAPPORT+June+2015_2015-06-01_1&utm_medium=email

Our target should be ambitious, agree. Should it be fair in relation to rest of the world? The Infometrics report supporting this document says 4/5 of the "target" would best be met by purchasing emissions credits offshore!! I say that is absolutely unfair to the rest of the world – for us buy off our obligation, instead of taking real action to meet it. So I disagree with the proposed means for reaching an emissions objective.

What would be a fair contribution for New Zealand?

2. What do you think the nature of New Zealand's emissions and economy means for the level of target that we set?

I think New Zealand's economy requires the most cost-effective actions that both reduce greenhouse emissions and support well-being and economic productivity. The three I illustrate here are: to 1) restore and expand the Warm Homes Scheme, and 2) promote efficient wood burning through revised air quality standards that balance the impacts of cold houses against those of fine-particle pollution; promote urban forestry for multiple use including firewood and biodiversity, and 3) farmingsystems that store carbon in the soil and reduce NOx emissions.

1**. Restore and expand the Warm Homes/ Clean Heat scheme**. This scheme yielded benefits nearly five times their costs, yet its funding was cut by 2/3 in mid 2013. I am convinced home insulation was the biggest factor that reduced the per-household electricity demand from 7903 kWh per year in 2010 to 7357 kWh per year in 2014. So much household electricity goes to sheer waste – purchased electricity pouring out through the roofs to heat the sky. Almost 300,000 houses were insulated under that scheme, almost another million households could benefit if the scheme were restored.

2. It's household energy that creates the peaks that must be met by fossil fuels, either at the instant or within a few hours (if peaks are met by hydro). MBIE's "low-carbon" scenario requires wind and solar energy to be accompanied by a massive increase in gas turbines: the spreadsheet shows five new gas peaking power stations to be installed by 2030. Yet annual greenhouse emissions in 2030 would be reduced only from 4864 Gg (their base case, "mixed renewables") to 3431 Gg in the Low Carbon scenario. Most of that new peaking capacity would not be needed if we saw a return to household wood burning together with PV plus batteries, and a smart grid to integrate these into a robust power system. (Note the Parliamentary Commission for the Environment recommends a review of today's inappropriate air qality standards.)

3. NZ has best opportunity in the world to improve our agriculture through "biological farming" to improve soil carbon content, soil structure, and ability to control water flows. Mitigating climate change is only part of its advantage – carbon stored in the soil makes it more resistant to erosion and drought, and nitrogen management keeps our waterways cleaner.

We don't need to wait for "discovery, development and adoption of NEW mitigation technologies," we just need to apply what is well known.

How will our contribution affect New Zealanders?

3. What level of cost is appropriate for New Zealand to reduce it greenhouse gas emissions? For example, what do you think would be a reasonable impact on annual household consumption?

As described above, it will benefit New Zealanders, through added employment in small-scale energy supply and efficiency, better quality of life (including urban cycling and walking), and MUCH less money spent building new power stations and lines. Technology is our friend, however "disruptive" it may be to existing large-scale energy suppliers and corporates.

Other greenhouse policies would include expansion of the electric car fleet – again for an initial cost there would be a long term financial benefit in moving away from fossil fuels. Consider this an investment, not a cost.

4. Of the opportunities for New Zealand to reduce its emissions (as outlined on page 15 of the discussion document), which do you think are the most likely to occur, or be most important for New Zealand?

Fuel and energy efficiency: the most important, the first priority.

Renewable electricity generation is over-rated, as direct use of fuel for heating is more efficient than heat pumps, and produces more comfort and more ambience in the home. On the other hand electric transport is a high priority.

Photovoltaic plus battery is just one way householders can reduce carbon emissions, increase the resilience of their households, and reduce their problems from blackouts.

Forest sinks are a valid concept and, as described above, could be extended to urban areas to promote biodiversity and provide local firewood supply. I've just heard on radio the Christchurch proposal to "green" the red zone, this is a perfect example.

We are certainly not aligned today with the global transition, as Infometrics considers that 4/5 of our "responsibility target" should be met by buyng meaningless overseas "credits". Our failure to achieve real emissions reductions is making us the laughing stock at overseas conferences.

Summary

5. How should New Zealand take into account the future uncertanties of technologies and costs when setting its target?

By doing its own technology development –for just one example, support for the New Zealand-designed and constructed ultra-clean advanced gasifier burners designed for home use. An

export market for this could be developed, to enable ultra-clean wood burning to benefit other countries in their quest for sustainable affordable home heating.

6. Is there any further information you wish the Government to consider? Please explain.

MfE should monitor the work of the Smart Grid Forum, which aims to improve the integration of intermittent solar and wind generation into the grid. With wind generation now the most cost-effective renewable energy form, its success overseas should point the way to a much higher priority than it has now. Innovative battery storage systems will probably be the most important way of reducing overall cost of integrating new renewable electricity generation into the grid, thus reducing electricity emissions at a minimised cost.