
From: Offshore Renewables

From:

Sent: Tuesday, 24 October 2023 10:39 am

To: Energy Strategy <EnergyStrategy@mbie.govt.nz>

Subject: Consultation on Advancing New Zealand's Energy Transition

Thank you for the thorough consultation and opening the 'box' on what our energy future is in New Zealand. I found it odd that the energy transition plan aims for 'net zero by 2050' yet this is not compatible with a 1.5 degree world nor is it likely to align with us meeting our NDC goals.

Furthermore, what will we want by 2050? A society based on sufficiency and equity where wellbeing for people and nature is the priority. Decarbonising our energy sector does not exempt us from the carbon and ecological footprints of new devices, vehicles, and energy production devices - all of which, with your current plan, would increase many times over to cater to the increased demand.

We instead argue for a shift in mindset - from increasing energy production to fuel economic growth to planning a reduction in demand to a level of sufficiency. Our population is forecast to grow to [5 - 8 million by 2050](#) - yet our NDC must shrink each decade. So every New Zealander will need to use less energy and emit less, in order to comply with our international obligations.

Where are the societal energy transition plans here, suggestions to help kiwis adjust their consumption lower?

Now to individual consultations:

In regard to the Fossil-Fuel Baseload consultation paper:

- I am fully in support of a Ban on New Fossil-Fuel Baseload (and peaking!) Electricity Generation. Gas, coal and oil are not in our future.
- I do not think any exemptions should be granted, regardless of fuel mix, CCUS, or co-generation. Security of supply should be managed through other means.
- I also advocate for an exact phase-out date for existing fossil-fuel electricity generation.

In regard to the Offshore renewable energy consultation:

- I do not support the developer-led approach and prefer a government-led, spatially planned approach from the start. Permitting for offshore renewable energy should only be considered after an independent whole-of-system analysis that determines the amount of energy required for sufficiency, not economic growth. Thorough considerations of alternatives including substantial demand management, other renewables and energy storage are also required.
- If a permitting system is to proceed, the criteria for feasibility and subsequent commercial permits must include environmental concerns and demonstration of the proponent's willingness and ability to minimize impacts.
- I support offshore renewable energy and government investment, to decrease reliance on fossil fuels
- Strongly advise community ownership models are explored and given preferential funding (over suggestions of a lottery), such that the profits can be distributed more equitably than through our current electricity generators and retailers.
- Agree [with previous submissions](#) there should be a separate objective considering environmental impacts
- Strongly support 'use it or lose it' provisions
- Yes, government could run subsequent permit rounds.

In regard to the Gas Transition Plan:

- Phase down fossil gas as the currently producing fields are exhausted, by not allowing further exploration or building of new fossil fuel power plants through legislative bans. Prioritise energy security for public services, marae, papakāinga, households and some essential small businesses, rather than maintaining security of fossil gas supply for consumers.
- Green hydrogen production, storage, transport and conversion are very energy wasteful and hazardous. Blending biomethane and/or hydrogen (even if feasible) into fossil gas pipelines will prolong fossil gas use and emissions, as will carbon capture and storage (CCS). Globally there is no evidence that CCS has effectively reduced GHG emissions.
- Rather than making ever more energy, put in place measures that effectively lower peak demands through education, incentives, regulations and smart technologies. Invest in grid-scale storage such as batteries alongside renewable generation, as well as distributed, smart energy networks with storage and EV integration.

In regard to the Interim Hydrogen Roadmap:

- While I support the production of green hydrogen as feedstock for synthetic fuels and necessary industrial products, such as the manufacture of steel, as needed to decarbonise industry, I strongly oppose the use of green hydrogen as fuel for transportation or home heating.
- I similarly oppose the production of hydrogen for export. We need our renewable electricity here and we should not compromise our energy security and environment for an export product.
- Green hydrogen is energy intensive to make and its use as fuel is very inefficient and is impractical for many applications. There are comparable and much more efficient alternatives to heavy transport, such as batteries. Battery charging requires much less new infrastructure and equipment, all of which will come with embedded greenhouse gas emissions. The space requirement of compressed hydrogen makes it impractical for aviation and shipping. Liquid hydrogen is impractical because of the energy required to make it and because of losses due to boil-off.
- The added electricity demand needed to make green hydrogen will increase electricity prices and add to energy poverty of disadvantaged communities.
- Hydrogen is an indirect greenhouse gas and leaks through most containment materials. We don't know how much hydrogen leaks to air because we don't yet have the technology to measure it. If hydrogen is used as fuel and 10% leaks to the air, scientists have calculated that it would create fully half the global warming that would have otherwise come from burning fossil fuels, in the next few decades. We should not trade one global warming problem for another.
- Hydrogen is highly explosive, can't be smelled to alert people to leaks and burns with a flame that is invisible in daylight. Hydrogen explosions are common around the world and will become more common as more hydrogen is used and transported. I would not allow a hydrogen refueling station in my community and would not want rescue and fire fighters to be exposed to the risk of harm due to accidents involving hydrogen vehicles.
- Hydrogen is not suitable for heating homes, as found recently by the UK National Infrastructure Commission, and adding hydrogen to our fossil gas pipeline system will result in additional hydrogen leaked to air and additional global warming. Heat pumps are a better and more efficient alternative to burning fossil gas and hydrogen for space heating.
- We urge the government not to support the green hydrogen industry other than for industrial uses. There are alternatives which will make our communities safer, more energy efficient and reduce global warming.

In regard to the Electricity market measures:

- One of the first things to do is to break up the 'gentailers' which dominate the electricity market and stifle innovation and participation from independent retailers or community-based operations. Rather than pushing for economic efficiency, put greater focus on energy equity for households and support those in need.
- Support more community-scale distributed renewable energy system initiatives aimed at sufficiency and affordability, such as by vastly expanding the Māori and Public Housing Renewable Energy Fund.

- Invest in transmission and distribution networks with strong focus on flexibility and resilience against extreme weather events and other disruptions, with demand control capability.

Noho ora mai

Water Resource Scientist



If you need to schedule a meeting, my calendar is available here: <https://komanawa.com/698-2/>

Find out more at [Komanawa.com](https://komanawa.com)

