

Response ID ANON-5N63-TC62-B

Submitted to Have your say and shape the emissions reduction plan
Submitted on 2021-11-24 16:47:54

Your details

1 What is your name?

Name:
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Email:
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3 Which region are you in?

Select your region:
Auckland | Tāmaki-makau-rau

4 Are you submitting as an individual or on behalf of an organisation?

Organisation

5 If on behalf of an organisation, what is its name?

Name of organisation:
Bioenergy Association - Wood Energy Interest Group (WEIG)

6 If on behalf of an organisation, what type is it?

Industry body

Consent to release your submission

1 Do you consent to your submission being published on this website?

Yes

2 If yes to the above, clearly state if there are parts of your submission that you do not want published.

If yes to the above, clearly state if there are parts of your submission that you do not want published.:

Providing additional information

Any other feedback on the proposals

Add your comments, ideas, and feedback here.:

Upload supporting documentation

Upload documentation:
An Energy Matching Strategy for NZ - WEIG Submission - 24 Nov 2021.pdf was uploaded

Introduction

Read the introduction for this consultation

Transition pathway

Read more on the transition pathway

1 Do you agree that the emissions reduction plan should be guided by a set of principles?

Yes

If so, are the five principles set out above, the correct ones? Please explain why or why not.:

2 How can we enable further private sector action to reduce emissions and help achieve a productive, sustainable and inclusive economy? In particular, what key barriers could we remove to support decarbonisation?

Please write your response here.:

3 In addition to the actions already committed to and the proposed actions in this document, what further measures could be used to help close the gap?

Please write your response here.:

4 How can the emissions reduction plan promote nature-based solutions that are good for both climate and biodiversity?

Please write your response here.:

5 Are there any other views you wish to share in relation to the Transition Pathway?

Please write your response here.:

Helping sectors adapt

Read more about helping sectors adapt

6 Which actions to reduce emissions can also best improve our ability to adapt to the effects of climate change?

Please write your response here.:

7 Which actions to reduce emissions could increase future risks and impacts of climate change, and therefore need to be avoided?

Please write your response here.:

On over-reliance on electricity-based solutions (which includes hydrogen, heat pumps, electric boilers) will result in increased demand for electricity and therefore price. This will impact most on those with the least disposable income – increasing the risk of climate change to those groups.

The strategy needs to take a balanced approach, optimally utilising our suite of resources, and, where biomass can alleviate the demand for electricity, then that fuel-type should be valued and encouraged for that strategic reason.

Examples of where clean, sustainable and locally sourced wood fuels / biomass can displace electricity demand (freeing it up for a higher value uses) are electric boilers for industrial heat users, and heat pumps for swimming pools, schools, hotels, hospitals (e.g. Ashburton), universities etc, and as liquid fuels instead of power-hungry hydrogen.

Working with our Tiriti partners

Read more on working with our Tiriti partners

8 The Climate Change Commission has recommended that the Government and iwi/Māori partner on a series of national plans and strategies to decarbonise our economy. Which, if any, of the strategies listed are a particular priority for your whānau, hapū or iwi and why is this?

Please write your response here.:

9 What actions should a Māori-led transition strategy prioritise?

Please write your response here.:

What impact do you think these actions will have for Māori generally or for our emission reduction targets? What impact will these actions have for you?:

10 What would help your whānau, community, Māori collective or business to participate in the development of the strategy?

Please write your response here.:

11 What information would your Māori collective, community or business like to capture in an emissions profile?

Please write your response here.:

Could this information support emissions reductions at a whānau level? :

12 Reflecting on the Climate Change Commission's recommendation for a mechanism that would build strong Te Tiriti partnerships, what existing models of partnership are you aware of that have resulted in good outcomes for Māori? Why were they effective?

Please write your response here.:

Making an equitable transition

Read more about making an equitable transition

Equitable Transitions Strategy

13 Do you agree with the objectives for an Equitable Transitions Strategy as set out by the Climate Change Commission?

Not Answered

What additional objectives should be included?:

14 What additional measures are needed to give effect to the objectives noted by the Climate Change Commission, and any other objectives that you think should be included in an Equitable Transitions Strategy?

Please write your response here.:

Equitable Transitions Strategy

15 What models and approaches should be used in developing an Equitable Transitions Strategy to ensure that it incorporates and effectively responds to the perspectives and priorities of different groups?

Please write your response here.:

Other actions

16 How can Government further support households (particularly low-income households) to reduce their emissions footprint?

Please write your response here.:

17 How can Government further support workers at threat of displacement to develop new skills and find good jobs with minimal disruption?

Please write your response here.:

Convert export logs to liquid biofuels and Renewable Natural Gas utilising the areas currently used as log-yards for the bio-refineries. Current log-yard workers can convert to roles at the biorefineries.

18 What additional resources, tools and information are needed to support community transition planning?

Please write your response here.:

19 How could the uptake of low-emissions business models and production methods be best encouraged?

Please write your response here.:

20 Is there anything else you wish to share in relation to making an equitable transition?

Please write your response here.:

We suggest that ETS revenues and the \$6.4b reportedly earmarked to buy international credits, is instead used to rapidly transform NZ to carbon neutral fuels. Making optimum use of biomass resources for energy across the three sectors of industrial/commercial heat, liquid biofuels and Renewable Natural Gas will alleviate the burden on in-demand electricity - which already has sufficient challenges to fully decarbonise, bearing in mind with increasing EV and heat pump demand. Without the assistance that well-deployed biomass can lend, the extreme demand for electricity will drive prices up, hitting the socio-economic sectors who can least afford it the most.

Government accountability and coordination

Read more about Government accountability and coordination

21 In addition to the Climate Change Commission monitoring and reporting on progress, what other measures are needed to ensure government is held accountable?

Please write your response here.:

22 How can new ways of working together, like mission-oriented innovation, help meet our ambitious goals for a fair and inclusive society and a productive, sustainable and climate-resilient economy?

Please write your response here.:

23 Is there anything else you wish to share in relation to government accountability and coordination?

Please write your response here.:

Inter-departmental co-ordination is required to realise the potential of utilising all our log harvest onshore, via several inter-connected strategies. For instance a Wood First strategy would not only increase value-added exports, but, as a by-product, could generate 15PJ annually of wood chip which can be used for heat or as a feedstock for RNG or bio-diesel. It would also pour jobs & wealth into rural regions via sawmill expansions etc.

Energy Planning also needs to be based on utilising existing infrastructure (e.g. the ex-Oil Refinery, and the gas pipelines and export log terminals). See Slide 10 of our attached Additional Information.

Similarly, if banning new gas exploration, then assist the establishment of RNG biorefineries, to protect industry and create a potential exportable product. See Slide 12 of our attached Additional Information.

Funding and financing

Read more on funding and financing

24 What are the main barriers or gaps that affect the flow of private capital into low-emissions investment in Aotearoa?

Please write your response here.:

Competition for Scarce Capital : Industry requires a rapid return on capital invested, typically a simple payback of <3years. That is due to a shortage/rationing of capital, and means that a new machine gets priority over a biomass boiler that may have a payback of 5-8 years - yet will last for 40+ years.

25 What constraints have Māori and Māori collectives experienced in accessing finance for climate change response activities?

Please write your response here.:

26 What else should the Government prioritise in directing public and private finance into low-emissions investment and activity?

Please write your response here.:

The CO2 abatement Cost Curve : Investment should be prioritised based on assisting the lowest cost abatement technologies first. These are the most economic, providing the best value for the tax-payers money invested.

The strategic value of certain energy types should be valued. Wood-derived energy, in its various guises (as heat for industry or commercial users, or as liquid fuels, or as RNG) is basically stored solar energy, that be released 24x7, whenever it is demanded. That storage or 'firming' characteristic warrants increased incentives.

Wood can also carry the burden of de-carbonising industrial heat. Electricity is desperately needed in other sectors, so should not be used for heating.

Wood energy is also the only form of energy that can, when CCS is viable, become carbon negative.

All these strategic values should be recognised in prioritising funding across sectors.

27 Is there anything else you wish to share in relation to funding and financing?

Please write your response here.:

Due to the competition for scarce capital, a green energy suspensory loan system, as well as Accelerated Depreciation would assist industry to decarbonise.

The wood fuel supply chain needs to be expanded to meet demand. Investment should not just be on the demand side. Fuel depots and large chipping/hogging machines as well as covered storage are all required to meet demand.

Energy and industry

Read more about energy and industry

Energy strategy

58 In your view, what are the key priorities, challenges and opportunities that an energy strategy must address to enable a successful and equitable transition of the energy system?

Please write your response here.:

The key priority should be to deploy abatement technologies that are proven, economic and available now. Biomass fits these criteria. See slide 6 and 8 of our Additional Information. This offers a big opportunity to get ahead of our Paris curve which NZ should grasp, as the remaining sectors, (and methane), will be harder to achieve

Biomass represents a key opportunity to act to decarbonise the heat sector fast. A large amount of expertise has been built up, and there are 20 wood boiler manufacturers represented here. With the wood fuel already available and the expertise and the ability for biomass to be used as a drop-in fuel for large coal boilers, it is possible to convert most of this sector by 2030, and 100% by 2035.

59 What areas require clear signalling to set a pathway for transition?

Please write your response here.:

A value-add 'Wood First' policy, if it converted 50% of our current log exports (the higher value half) to wood products would generate 15PJ of excess wood chip. That is a valuable resource that is currently being exported, and can be a significant contributor to fuel the transition. It requires clear signalling and a Wood First policy.

Current signalling (via GIDI and EECA funding) is that using electricity to decarbonise heat is favoured. This should not be acceptable. Rounds I and II of GIDI have awarded funding to biomass projects at \$5.44 per Tonne of CO₂ abatement, with electricity-based projects at over twice that. That is not logical when new electrical demand means our fossil generation has to run harder.

Stronger signals are required which favour true carbon-neutrality and recognising the 'battery' nature of biomass - and its ability to economically decarbonise the heat sector, leaving electricity for harder-to-abate uses.

Setting targets for the energy system

60 What level of ambition would you like to see Government adopt, as we consider the Climate Change Commission's proposal for a renewable energy target?

Please write your response here.:

We should be targeting to have 90% of industrial and commercial heat users to be carbon neutral by 2030, and 100% by 2035. As per our Slide 6, the expertise is already available, and the fuel is already produced and available via current log making residues plus:

- We currently export around 20 million tonnes of logs. If the higher value export logs (the top 50% of the value pyramid) are converted to wood products (including CLT and LVL etc for high rise low-or-negative carbon buildings) that would assist GDP and generate 15PJ of excess wood chip that can be used by industrial heat users.

- The lower value export logs (the bottom 50% of the value pyramid) should be viewed as a gas field that we are exporting, equivalent to 70PJ per year. As per our Slide 9, That can be used by industrial heat users, with the overflow being converted at bio-refineries at the 6 North Island log export ports to RNG (Renewable Natural Gas) and Liquid Fuels, with Bio-coal made as a by-product of the pyrolysis process, for a drop-in replacement at Huntly and in coal boilers.

The \$1b/year of ETS revenues can be used to drive this change. The \$6.4b reportedly to be used (wasted) to buy international credits would be better utilised to drive embedded low-carbon technology onshore, rather than assist other countries decarbonise at the NZ Taxpayers expense. See our Slide 8.

Phasing out fossil gas while maintaining consumer wellbeing and security of supply

61 What are your views on the outcomes, scope, measures to manage distributional impacts, timeframes and approach that should be considered to develop a plan for managing the phase out of fossil gas?

Please write your response here.:

With the existing pro-active encouragement of the phase-out of fossil gas already underway, the missing link to the policy is to pro-actively assist with a cost-effective solution.

The solution needs to be fast as existing gas users are already facing steeply rising prices and supply shortages. Luckily Industrial & commercial heat users can quickly convert (within 8 months at smaller sites, within 12-14 months at large sites) to using wood fuel instead of gas. It is a ready-made and proven carbon-neutral solution.

For other fossil gas users, the replacement is not hydrogen, which is too power-hungry given our already-burgeoning demand for renewable electricity. See our slide 9. Biomass can offer a solution in this space too :

- Bio-refineries can alleviate the negative impacts of the fossil gas phase-out

- Use ETS revenues etc to assist the set-up of infrastructure to do this : Regional bio-refineries at export ports can be set-up to utilise existing infrastructure and logistics to deliver this - as per our Slide 9

Decarbonising the industry sector

62 How can work underway to decarbonise the industrial sector be brought together, and how would this make it easier to meet emissions budgets and ensure an equitable transition?

Please write your response here.:

Simple : Ramp-up the GIDI fund, using say 25-30% of the annual ETS revenues (so approx \$250m-\$300m/yr ?) to drive the RAPID change referred to in our answer to qu. 60 (and detailed in our slide See our Slide 8 re using the GIDI as a delivery mechanism.

However, for various reasons biomass-based decarbonisation should get greater encouragement than electricity-based projects. These reasons are :

- Biomass is stored solar energy, that can be stock-piled and released 24x7 upon demand

- There are plentiful amounts of biomass already available, whereas incremental electricity demand is extending the years that we need to use coal and gas for electricity, and reducing the renewable power available for EV's etc

- Biomass can supply heat more cost-effectively than electric boilers. To encourage/subsidise those, whilst NZ already has an increasing renewable electricity deficit, is not joined-up thinking

- Biomass can bear the load of commercial heating : Small & mid-size wood & pellet boilers can heat swimming pools and supply space heating for hospitals, universities, hotels and schools, thus alleviating the electrical demand from heat pumps - liberating that so that it can instead supply residential heat pumps, charge EV's, and keep machines running and the lights on.

63 Are there any issues, challenges and opportunities for decarbonising the industrial sector that the Government should consider, that are not covered by existing work or the Climate Change Commission's recommendations?

Please write your response here.:

Yes, many. There is a clear opportunity to decarbonise the industrial heat sector rapidly. This is the easiest sector all all to decarbonise. See our slide 6 and 8.

Do not use electricity to decarbonise the heat sector. Use NZ's massive biomass battery, so electricity can be used in higher value applications. See our Slide 5.

Addressing current data gaps on New Zealand's energy use and associated emissions through an Energy and Emissions Reporting scheme

64 In your view, should the definition of a large energy user for the purposes of the proposed Energy and Emissions Reporting scheme include commercial and transport companies that meet a specified threshold?

Not Answered

Please write any supporting information here.:

65 We have identified a proposed threshold of 1 kt CO₂e for large stationary energy users including commercial entities. In your view, is this proposed threshold reasonable and aligned with the Government's intention to meet emissions budgets and ensure an equitable transition?

Not Answered

Please write any supporting information here.:

66 In your view, what is an appropriate threshold for other large energy users such as transport companies?

Please write your response here.:

67 Are there other issues, challenges or opportunities arising from including commercial and transport companies in the definition of large energy users for the purposes of the proposed Energy and Emissions Reporting scheme that the Government should consider? Supporting evidence on fleet size and characteristics is welcomed.

Please write your response here.:

Supporting development and use of low-emissions fuels

68 What level of support could or should Government provide for development of low-emissions fuels, including bioenergy and hydrogen resources, to support decarbonisation of industrial heat, electricity and transport?

Please write your response here.:

If NZ is serious about decarbonising, then support should be large : The ETS should be revenue-neutral, with ALL revenue (over \$1b per year now) feeding back to rapidly decarbonise the NZ economy - so the ETS should operate like one big Feebate scheme.

The high power requirements of hydrogen (3:1 at best ?) should mean that it is a non-starter in a country with NZ's extensive biomass resources. It may be justifiable for countries lacking in biomass to examine that route, but NZ could be using 150PJ or more of biomass-derived energy by 2035.

We need renewable electricity for its higher value uses, such as for industrial machinery and residential use, and charging EV's. Pursuing large-scale hydrogen is likely to result in more black-outs as natural gas declines, and we become more prone to dry year risk. Biomass can contribute here too, in the form of liquid and gaseous transport fuels (biodiesel and bio-LNG etc) which make conversion of the existing fleet easier, and can complement the uptake of EV's.

69 Are there any other views you wish to share in relation to energy?

Please write your response here.:

We have the expertise, ample fuel, the urgent need (depleting gas and climate change), and the revenue (via ETS), now we just need brave & decisive policy to rapidly decarbonise the heat sector.

The spin-off benefits of a circular bioeconomy, including rural job creation, GDP increases from a Wood First policy (exporting engineered lumber etc) and from burgeoning exports as our products become carbon neutral ahead of others, justify an aggressive decarbonisation approach, which will lead to energy resilience and Domestic Bliss (see our Slide 11).

So let's get on with it !

Forestry

Read more about forestry

106 Do you think we should look to forestry to provide a buffer in case other sectors of the economy under-deliver reductions, or to increase the ambition of our future international commitments?

Not Answered

Please write any supporting information here.:

To feed the bio-economy we need fuel and fibre. Planting should be encouraged on marginal land. World-wide demand will grow for wood-based building materials, biofuels and other bio-derived products (bio-plastics etc). We should be planning accordingly.

We should not be encouraging land to be locked-up in Permanent Forest Sink initiatives (unless it is highly erosion-prone).

107 What do you think the Government could do to support new employment and enable employment transitions in rural communities affected by land-use change into forestry?

Please write your response here.:

Implement a Wood First policy, to drive expansion of wood processing. If the upper 50% of the export logs were processed onshore, not only does this add value and increase GDP, but it would also result in 15PJ of new excess wood chip for use as fuel or as a bio-feedstock.

108 What's needed to make it more economically viable to establish and maintain native forest through planting or regeneration on private land?

Please write your response here.:

An argument can be made that there is ample native forest, and that we instead need all available land to be productive, producing food, fibre and fuel.

109 What kinds of forests and forestry systems, for example long-rotation alternative exotic species, continuous canopy harvest, exotic to native transition, should the Government encourage and why?

Please write your response here.:

a. Do you think limits are needed, for example, on different permanent exotic forest systems, and their location or management? Why or why not?:

b. What policies are needed to seize the opportunities associated with forestry while managing any negative impacts?:

110 If we used more wood and wood residues from our forests to replace high-emitting products and energy sources, would you support more afforestation? Why or why not?

Yes

Why or why not?:

In the brace new world of the bio-economy we will need significantly more fibre and biofuel. Typically about 8-9% of farm area is not used highly productively. This could be used to absorb carbon and generate new fuel and fibre.

111 What role do you think should be played by:

a. Central and local governments in influencing the location and scale of afforestation through policies such as the resource management system, ETS and investment :

b. The private sector in influencing the location and scale of afforestation? :

112 Pests are a risk to carbon sequestration and storage in new, regenerating and existing forest. How could the Government support pest control/management?

Please write your response here.:

113 From an iwi/Māori perspective, which issues and potential policies are a priority and why, and is anything critical missing?

Please write your response here.:

114 Are there any other views you wish to share in relation to forestry?

Please write your response here.:

Please see Slide 7 of our Additional Information.

81% of 2019 log exports were shipped to China. This demand is tenuous :

In the 1990's China's Central Gov'n't initiated "China Fast-Growing and High-Yield Plantation Programme"

In 1999 China had 46.7 million hectares of plantation forestry

The programme aimed to establish a further 13.3m ha by 2015

This was projected to supply 150 million cubic metres per year by 2015

There is a logging moratorium – currently planned until the 2030's. This could be removed at any time, particularly for political reasons (e.g. NZ protesting the treatment of Uyghurs, similar to Australia's current economic 'punishments')

The Chinese population is set to decline significantly

There is significant risk from contagion re. Evergrand & resulting decline in buyer power .

So long-term demand for our logs, certainly at current prices, is at risk. Demand has recently fallen by 35%.

A Wood First policy, targetting the on-shore conversion of the upper 50% of export logs (by quality/value) to wood products, would reduce this over-reliance/risk, whilst generating rural jobs as well as 15PJ of excess wood chip for use as fibre and fuel.

A more enlightened policy driving onshore demand for biofuels (for heat, gas and liquid fuels) would enable the lower 50% of export logs (by value) to be used as fuel and fibre. Exports may even switch from logs to liquid biofuels - a much higher value use.

See our slide 11 :

OUTCOMES by 2030 :

Our forestry & logging industry has a secure long-term future, with all log demand onshore

New & expanded sawmills are exporting value-add products, with rural jobs & happy communities

Industry is near carbon zero using a secure & sustainable source of heat – with burgeoning exports

....and we have 100PJ of Biodiesel and RNG to meet domestic demand – with the rest exported.

Taking action

Do you have any examples of your organisation demonstrating leadership and taking action to reduce GHG emissions you could share with us? If so, briefly describe the example.

Do you have any examples of your organisation demonstrating leadership and taking action to reduce GHG emissions you could share with us? If so, briefly describe the example.:

The Wood Energy Interest Group is an agglomeration of passionate advocates who are, every day, trying to drive change in the direction extolled in this submission.