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Submission form: Consultation on the Sustainable Biofuels Mandate

The Ministry of Business, Innovation and Employment (MBIE) and the Ministry of Transport (MoT) would like your feedback on a proposal to increase the use of sustainable liquid biofuels in New Zealand to reduce greenhouse gas (GHG) emissions from transport. Please provide your feedback by **5pm, 26 July 2021**.

When completing this submission form, please provide comments and supporting explanations for your reasoning where relevant. Your feedback provides valuable information and informs decisions about the proposals.

We appreciate your time and effort taken to respond to this consultation.

Instructions

To make a submission you will need to:

1. Fill out your name, email address, phone number and organisation. If you are representing an organisation, please provide a brief description of your organisation and its aims, and ensure you have the authority to represent its views.
2. Fill out your responses to the discussion document questions. You can answer any or all of these questions in the [discussion document](#). Where possible, please provide us with evidence to support your views. Examples can include references to independent research or facts and figures.
3. If your submission has any confidential information:
 - i. Please state this in the email accompanying your submission, and set out clearly which parts you consider should be withheld and the grounds under the Official Information Act 1982 (Official Information Act) that you believe apply. MBIE and MoT will take such declarations into account and will consult with submitters when responding to requests under the Official Information Act.
 - ii. Indicate this on the front of your submission (e.g. the first page header may state "In Confidence"). Any confidential information should be clearly marked within the text of your submission (preferably as Microsoft Word comments).
 - iii. Note that submissions are subject to the Official Information Act and may, therefore, be released in part or full. The Privacy Act 1993 also applies.

How to submit this form

4. Submit your feedback:

i. As a Microsoft Word document by email to energymarkets@mbie.govt.nz with the subject line: *Consultation: Sustainable Biofuels Mandate*

ii. By mailing your submission to:

Consultation: Sustainable Biofuels Mandate
Energy Markets Policy
Building, Resources and Markets
Ministry of Business, Innovation and Employment
PO Box 1473, Wellington 6140
New Zealand

Submitter information

Submitter information

MBIE and MoT would appreciate if you would provide some information about yourself. If you choose to provide information in the section below, it will be used to help MBIE and MoT understand how different sectors view the Sustainable Biofuels Mandate proposal. Any information you provide will be stored securely.

Your name, email address, phone number and organisation

Name: Johnathan Holladay

Email address:

Phone number:

Withheld under section 9(2)(a)

Organisation:

LanzaTech

- The Privacy Act 1993 applies to submissions. Please tick the box if you do **not** wish your name or other personal information to be included in any information about submissions that MBIE and MoT may publish.
- MBIE and MoT may upload submissions and potentially a summary of submissions to the website(s), www.mbie.govt.nz and/or www.transport.govt.nz. If you do **not** want your submission or a summary of your submission to be placed on either of these websites, please tick the box and type an explanation below:

I do not want my submission placed on MBIE's website and/or MoT's website because... [insert reasoning here]

Please check if your submission contains confidential information

- I would like my submission (or identifiable parts of my submission) to be kept confidential, and **have stated** my reasons and ground under section 9 of the Official Information Act that I believe apply, for consideration by MBIE and MoT.

Sustainable Biofuels Mandate

How the Sustainable Biofuels Mandate would work

1. Do you support having a GHG emissions reduction mandate?

Yes
 Yes, with changes
 No
 Not sure/No preference

Please explain your views.

LanzaTech supports a GHG emissions reduction mandate. How the policy is constructed will determine the outcome. The end goal is to reduce the GHG footprint of transportation. Use of biofuels is a means to the end, but not itself the goal. In the United States, California has a low-greenhouse gas fuels standard (Low Carbon Fuel Standard, LCFS). This is a technology- and feedstock-neutral policy that is focused on the outcome of reducing GHG and provides financial incentives to reduce the carbon intensity of all fuels. The U.S. has a renewable fuel standard (RFS). Written this way the targeted outcome is increasing the content of bio-derived fuels into the fuel chain. Although the RFS contains GHG reduction thresholds for categories of renewable fuels, there is no incentive for additional reductions beyond the threshold. The primary effect of the RFS was an increase in corn-based ethanol production to 15 billion gallons. It did not reduce the GHG intensity of corn-based ethanol nor did it significantly advance cellulosic, low carbon-intensity fuels. In contrast, the California LCFS has spurred even conventional corn ethanol producers to drive down the carbon intensity of their products.

The New Zealand language in the background material appears to limit fuels to be those derived from biomass, e.g., conventional plants and possibly algae. This would not allow carbon recycling that would incorporate waste carbon and include gaseous waste carbon. Accordingly, we encourage New Zealand to promulgate a robust feedstock- and technology-neutral mandate for low carbon transportation fuels, like the California LCFS.

2. Do you support the proposal to require certification of lifecycle emissions of biofuels sold in New Zealand using international standards?

Yes, I agree
 I agree in part
 No, I don't agree
 Not sure/no preference

Please explain your views.

We encourage that certification of the lifecycle emissions using international certification systems. We have worked with the Roundtable on Sustainable Biomaterials (RSB) and our steel mill waste gas to ethanol process has been certified by RSB. We agree with the value and respect RSB's multi-stakeholder sustainability certification scheme that addresses the full range of sustainability criteria, including environmental, legal, and social criteria.

Use of certification systems like RSB will further reduce administrative burdens on New Zealand regulators and allow the proposed regulation to operate more efficiently, as the EU Renewable Energy Directive and other regulatory programs have demonstrated the advantages of such an approach.

3. Do you support applying the Sustainable Biofuels Mandate to all liquid transport fuel?

Yes, I agree
 I agree in part
 No, I don't agree
 Not sure/no preference

Please explain your views.

To ensure long term benefits the mandate should enable reducing the GHG footprint of sectors that do not have alternatives. Electric motors are highly efficient for light duty applications. The result is less energy is needed. Policies need to be designed that address sectors that don't have alternatives, including aviation and heavy duty. Without such policies these sectors will not advance. For example, without a specific policy focus on Sustainable Aviation Fuel (SAF), via a mechanism such as a dedicated mandate or credit multiplier, obligated parties will comply by supplying ground transportation fuels,

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which are generally expected to be less expensive given the more nascent state of the SAF industry and more stringent criteria applicable to aviation fuels.

In summary, it is ok to have the biofuel/sustainable low carbon intensity fuel standard apply to all sectors, but the policy needs to be written to encourage development of modes of transport that are hard to electrify for long term. We encourage New Zealand to codify a SAF-specific policy like the SAF mandates that have been recently proposed in the EU and UK in recognition of the need for aviation-specific policies.

Further, regarding applying the mandate to all liquid transportation fuels, we urge New Zealand to consider applying the mandate to all fuel supplied in New Zealand, including fuel ultimately used in international aviation. As outlined in the recent ReFuelEU proposal, a mandate on fuel suppliers rather than airlines is not inconsistent with the International Civil Aviation Organization's (ICAO) Carbon Offsetting Reduction Scheme for International Aviation (CORSIA), and New Zealand's geography mitigates any concerns over competitive distortions that may weigh against applying a mandate to fuels used in international aviation (i.e. airlines would not choose to route flights through neighbouring countries without SAF mandates if New Zealand pursued a SAF mandate).

4. Are the proposed initial emission reduction percentages for 2023–2025 appropriate for New Zealand? If not, what should they be?

Yes, I agree I agree in part No, I don't agree Not sure/no preference

Is there anything you would like to tell us about the reason(s) for your choice?

The targets are modest and can be achieved. This should help New Zealand if sustainable fuels are the only compliant mechanism. Changes to the refining of conventional petroleum-based fuels can also reduce GHG. IF the latter is allowed, then the GHG reductions need to be much more aggressive.

5. Do you support having single GHG emissions reduction percentages across all fuel types, or do you favour separate reduction percentages? Why and how many separate percentages would you suggest we have?

Yes, I agree I agree in part No, I don't agree Not sure/no preference

Is there anything you would like to tell us about the reason(s) for your choice?

The mandate must promote the use of fuels for sectors that are difficult to electrify. A mandate that is across the board may only promote fuels for the light duty fleet. As noted above, we encourage strong consideration of SAF-specific mandates like those under evaluation in the EU and UK.

6. Do you support provisional emission reduction percentages being set for 2026–2030 and 2031–2035 with the percentages being finalised in 2024 and 2029 respectively?

Yes, I agree I agree in part No, I don't agree Not sure/no preference

Is there anything you would like to tell us about the reason(s) for your choice?

The approach is prudent. The capital needed for new plants (biofuels/sustainable low carbon intensity fuels) is substantial and industry needs policy that allow them to make long-term decisions. Provisional percentages provide policy intent that will help spur investment in domestic production, though we encourage New Zealand to consider a stronger signal that would provide more policy certainty for post-2025 volumes, such as by setting a robust but achievable mandate at least through 2030. Such an approach has been effective under the California LCFS (where the success of an initial 10% reduction target by 2020 supported a more ambitious target of a 20% reduction by 2030), and the EU has also recently proposed targets with specified mandated volumes through 2030. While a review in 2024 and

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2029 may be appropriate, we suggest that review be reserved for consideration of increasing the ambition of the mandate if program success demonstrates that more ambitious reductions can be achieved.

In the United States, the renewable fuel standard requirements are reset each year, often retrospectively. Such an approach removes confidence to procure funding for capital intensive projects. More specifically, in the U.S., even long-term policies with provisional volumes set for fifteen years (2007-2022) did not effectively promote investment in advanced biofuels due to the ability of regulators to adjust volumes annually.

7. Do you support the proposal that biofuel producers must be certified against an established sustainability standard to count towards achievement of the emissions reduction percentage?

Yes, I agree I agree in part No, I don't agree Not sure/no preference

Is there anything you would like to tell us about the reason(s) for your choice?

The sustainability criteria are critical in this mandate. We propose that sustainability play a larger role in the language, for example rather than using the term "biofuels mandate" using terms such as "sustainable, low carbon intensity fuels" mandate or "sustainable clean fuels" mandate.

Without sustainability the mandate could lead to negative impacts.

One, petroleum crude oil could receive a benefit if refiners reduced the GHG of refining. Since refining is a mature technology, the R&D to reduce the GHG of the refining step is not needed.

Two, the mandate is to help us move away from conventional petroleum-based fuels and without sustainability this may not be achieved. (This is mute if the reduction formula stated remains intact.)

Three, water and land use change implications, social sustainability concerns are real, and all feedstocks must be chosen carefully as to not promote deforestation or add undue pressure on aquifers and land.

With sustainability in the mandate, feedstocks from waste sources, such as industrial gasses, municipal solid waste, and other sources that do not interfere with food chains become important, low-cost sources of carbon for low intensity liquid fuels.

8. Do you support having a joint fuel industry/government information campaign to inform New Zealanders about biofuels and the Sustainable Biofuels Mandate?

Yes, I agree I agree in part No, I don't agree Not sure/no preference

Is there anything you would like to tell us about the reason(s) for your choice?

We agree that informing the public is important. The information campaign must be real and not merely advertising, sometimes called "greenwashing" or the public will lose confidence.

9. Do you support the labelling proposal that informs consumers about specific biofuels at the point of sale?

Yes, I agree I agree in part No, I don't agree Not sure/no preference

Is there anything you would like to tell us about the reason(s) for your choice?

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We agree that transparency is important to consumers. Once a station has labels, though, would this create a barrier to the entry of new low-carbon intensity fuels? For example, if a site had labels that their gasoline contained ethanol, this could be used as a barrier for non-ethanol solutions to be implemented at the station. Similarly, a biodiesel label could prevent the introduction of renewable diesel. Further, experience in other markets has demonstrated that labelling requirements may not be appropriate for drop-in fuels that are fungible with fossil fuels and blended upstream before transport by pipeline or other means, such as renewable diesel and SAF. For these fuels, additional labelling requirements can create logistical and administrative burdens without providing valuable information to the end user.

Labelling with respect to GHG reductions, rather than specific biofuel incorporated, would inform consumers, and not limit options.

10. Should New Zealand try to overcome the challenges that domestic biofuel producers face in maintaining access to affordable supplies of domestically produced feedstocks? Do you have any suggestions for how this challenge could be overcome?

Yes, I agree I agree in part No, I don't agree Not sure/no preference

Is there anything you would like to tell us about the reason(s) for your choice?

The language in the mandate refers, almost exclusively, to carbon sourced from plants (things grown). If the desired outcome is reducing GHG, then fuels that are sustainable and have a low-carbon intensity (reduce GHG) becomes the focus and waste carbon feedstock, that are present in New Zealand, can be used to promote a domestic industry that would include recycling carbon from waste gasses, municipal waste, and agricultural/forestry residues.

Creation of a robust domestic market for low carbon fuels will help address challenges faced by domestic producers, as feedstocks will necessarily be drawn to markets where value is given for carbon reductions. Further, while some biofuel feedstocks have historically been drawn to other markets, New Zealand could mitigate this by focusing the mandate on scalable feedstocks that are not easily transportable to other markets, such as cellulose, MSW, and waste carbon. A focus on robust sustainability criteria and ambitious GHG reduction targets will help drive new domestic feedstock supply chains,

How could the Sustainable Transport Biofuels Mandate be implemented?

11. Do you think the minimum threshold for compliance of 10 million litres of transport fuel in a calendar year in New Zealand is appropriate? If not, what level would you change it to?

Yes, I agree I agree in part No, I don't agree Not sure/no preference

Is there anything you would like to tell us about the reason(s) for your choice?

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12. Do you agree with the method for calculating a supplier's GHG emission reduction?

Yes, I agree I agree in part No, I don't agree Not sure/no preference

Is there anything you would like to tell us about the reason(s) for your choice?

The method is straightforward.

13. Do you think the annual reporting regime, including its offences and fines, is practical and appropriate?

Yes, I agree I agree in part No, I don't agree Not sure/no preference

Is there anything you would like to tell us about the reason(s) for your choice?

14. Do you support the performance of fuel suppliers being published to enable consumers to reward the industry leaders in reducing GHG emissions?

Yes, I agree I agree in part No, I don't agree Not sure/no preference

Is there anything you would like to tell us about the reason(s) for your choice?

Transparency is important for the public.

15. Will the proposed penalties encourage fuel suppliers to achieve the required emission reductions? If not, would level should they be?

Yes, I agree I agree in part No, I don't agree Not sure/no preference

Is there anything you would like to tell us about the reason(s) for your choice?

The levels are sufficient to encourage compliance but must be maintained at a cost higher than the general cost of carbon.

16. Do you support the proposal for fuel suppliers to defer achieving their emissions reductions for years 1 and/or 2, in full or in part, to the following year?

Yes, I agree I agree in part No, I don't agree Not sure/no preference

Is there anything you would like to tell us about the reason(s) for your choice?

As the mandate takes place fuel suppliers providing fuel suppliers flexibility will protect all parties from disruptions in the fuel supply chain.

17. Do you support fuel suppliers banking any surplus emissions reductions in a year and using it to reduce the percentage needed to be achieved the following year?

Yes, I agree I agree in part No, I don't agree Not sure/no preference

Is there anything you would like to tell us about the reason(s) for your choice?

Banking does not produce certainty for the alternative fuel producer to have a market for their product.

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18. Do you support fuel suppliers borrowing for shortfalls in emissions reductions in a year, and making the shortfall up the following year?

Yes, I agree I agree in part No, I don't agree Not sure/no preference

Is there anything you would like to tell us about the reason(s) for your choice?

Borrowing adds risk. If one cannot meet their needs this year, would they have confidence that they can meet the next year needs with the added amount from the previous year.

Allowance for borrowing can further create uncertainty within the fuel producer and regulated communities as to the scope of anticipated obligation for a given compliance year, potentially driving volatility in credit markets. To the extent borrowing is allowed, it should be limited in scope to prevent significant market distortions. The proposed 10% limit on borrowing appears consistent with that objective.

19. Do you agree with the proposal to allow trading through the use of entitlement agreements?

Yes, I agree I agree in part No, I don't agree Not sure/no preference

Is there anything you would like to tell us about the reason(s) for your choice?

This provides flexibility.