



Ministry of Business Innovation and Employment

PO Box 1473

Wellington 6140

New Zealand

Emailed to: hydrogen@mbie.govt.nz

2 November 2023

Dear Sirs,

Re: Interim Hydrogen Roadmap consultation

Ballance Agri-Nutrients Limited (Ballance) would like to thank the Ministry of Business Innovation and Employment for the opportunity to make this submission on the “Interim Hydrogen Roadmap” consultation document.

Recognising the importance of climate change policy and the decarbonisation pathway to our business, our stakeholders and New Zealand more generally, our submission is attached.

We welcome any clarification questions the Ministry may have on this submission and would also welcome the opportunity to meet and discuss the complexity of the issues raised in this consultation process.

Submission on the *Interim Hydrogen Roadmap*

Name	
Organisation (if applicable)	Ballance Agri-Nutrients Limited
Contact details	

Release of information

Please let us know if you would like any part of your submission to be kept confidential.

I would like to be contacted before the release or use of my submission in the summary of submissions that will be published by MBIE after the consultation.

I would like my submission (or identified parts of my submission) to be kept confidential, and **have stated below** my reasons and grounds under the Official Information Act that I believe apply, for consideration by MBIE.

No part of this submission is confidential

[To check the boxes above: Double click on box, then select 'checked']

Responses to questions

Section 1: Hydrogen is emerging as an important part of the future global energy system

Are there other issues we should be considering in our assessment of the strategic landscape for hydrogen in New Zealand?

- 1 Hydrogen provides great opportunities but also comes with a number of challenges. As indicated in the consultation document, there are other options for alternative fuels and New Zealand's future energy needs could be met by any combination of these. Hence all forms of "clean" energy should be considered equally.

Section 2: The role for hydrogen in New Zealand's energy transition

Do you agree with our assessment of the most viable use cases of hydrogen in New Zealand's energy transition?

- 2 These seem appropriate, however while there are a lot of opportunities there is a lot of uncertainty.

Do you support some of these uses more than others?

- 3 We believe all options should be considered to start with, recognising that not all of them will necessarily be proven viable - practically or economically. Some options may be identified as priorities over others.

What other factors should we be considering when assessing the right roles for hydrogen in New Zealand's energy transition?

- 4 No comment

Do you agree with this assessment of the potential for hydrogen supply and demand in New Zealand?

- 5 We agree that electricity price will have a significant impact on the viability of green hydrogen production. At present cost of electricity and capital costs are key barriers to development. The electricity cost per unit of energy is 600% higher than the price of gas equivalents. A lower electricity price is needed sooner than seems to be currently proposed - without this there is a significant risk of delays to production developments or even loss of investment confidence, all impacting New Zealand's emission reduction goals.
- Investment in production will require governmental support, assistance and guidance, that provides confidence for the required investment periods (up to 15 years and beyond).

Do you agree with the key factors we have set out that are likely to determine how hydrogen deployment could play out?

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The key factors seem appropriate for green hydrogen based on electrolysis. The development of additional electricity transmission infrastructure is also a key factor that will impact green hydrogen production.

7 What do you think needs to happen to address these factors?

Similar to the Clean Cars mechanism, any developing technology needs support where buyers have a price that promotes adoption at scale. Government support by means of an electricity pricing arrangement to partially offset the higher input costs when switching from gas to renewable electricity would be key for the transition. This could be in the form of a contract for difference / Power Purchase Agreement (PPA) in which the government is able to facilitate a long term commitment (eg 20yr) off take agreement with the developer of renewable electricity to enable project funding whilst supporting the hydrogen generator with a shorter term PPA.

8 Do you have any evidence to help us build a clearer picture?

As noted above, the current electricity cost per unit of energy is significantly higher than the price of gas equivalents making green hydrogen uneconomic at this time.

9 Do you agree with our findings on the potential for hydrogen to contribute to New Zealand's emissions reduction, energy security and resilience and economic outcomes?

Yes, hydrogen has the potential to be part of New Zealand's energy mix in the future.

10 Do you have any insights we should consider on what is needed to make hydrogen commercially viable?

As mentioned above, electricity price needs to be reduced significantly and access to suitable water resources needs to be secured.

11 Is there any further evidence you think we should be considering?

No comment

Section 3: Government position and actions

Do you agree with our policy objectives?

The policy objectives are appropriate. Delivering New Zealand decarbonisation relies on four fundamental enablers:

- 12**
- A. Stable and supportive government policy and legislative settings under the Emissions Trading Scheme (ETS).
 - B. Affordable electricity and energy.
 - C. Electricity lines supply infrastructure investment.

D. Co-investment with Government.

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Do you agree with our positioning on hydrogen's renewable electricity impacts and export sector?

No comment

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Do you agree with the proposed actions and considerations we have made under each focus area?

We agree with the government committing to regulatory work to support use cases. We suggest that this go beyond green hydrogen and consider all clean hydrogen technologies.

Is there any evidence we should be considering to better target actions in the final Hydrogen Roadmap?

Internationally, governments are stepping in. Government support is key to the establishment of alternative energy markets.

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That support is needed throughout development including for navigating the consenting process. As an example of the barriers to implementing a decarbonisation project: the Hiringa-Ballance green hydrogen project has been repeatedly delayed due to appeals and push-back from Greenpeace. Without these delays, this project would already be in construction and ready to contribute emission reductions to New Zealand's decarbonisation pathway.

General comments