

## Submission on the *Interim Hydrogen Roadmap*

Name	
Organisation (if applicable)	HWR Hydrogen
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.

I would like my submission (or identified parts of my submission) to be kept confidential because

[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

1

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

Nothing further to contribute

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

2

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

HWR Hydrogen are supportive of the inclusion of heavy land transport in the roadmap. Our analysis of low emission fuel sources for heavy transport indicates that hydrogen is the most viable option to maintain payload efficiency, and therefore maintaining current capital requirements for trucking fleets and driver requirements.

HWR Hydrogen is supportive of the inclusion of hydrogen blending (dual fuel) into existing combustion engines as a transitional approach to decarbonising the heavy transporting industry and supporting the development of infrastructure to supply hydrogen. A hybrid/transitional approach has proven effective in the decarbonising of the light vehicle sector and should be supported for the heavy transport sector.

HWR Hydrogen is supportive of the inclusion of aviation in the roadmap, as the aviation sector in New Zealand is progressing with alternative fuel solutions and are supportive of developing hydrogen refuelling solutions around New Zealand, which will support supply of hydrogen in New Zealand.

HWR Hydrogen is supportive of the inclusion of marine. There are international examples of using dual fuel to support decarbonisation of the transport industry. The inclusion of marine also supports our primary industries in their journey to decarbonise their supply chains.

3

**Do you support some of these uses more than others?**

HWR Hydrogen support the domestic generation and use of hydrogen before export. Export should only be considered if New Zealand green energy supply is able to provide the hydrogen for New Zealand domestic consumption first and an excess is available. The opportunity for New Zealand is to use green hydrogen and decarbonisation of the supply chain as a benefit to the export of our primary products.

4

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

Additional dual-fuel opportunities

There is further opportunity with the dual-fuel (hybrid) combustion engine technology, including applications in the marine, speciality and ancillary vehicles, and remote power generation (power backup) areas. Any diesel combustion engine can be considered for dual fuel. The transitional benefit of dual fuel technology should be recognised.

5

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

Nothing further to contribute

6

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

Nothing further to contribute

7

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

- Policy to ensure hydrogen is made from sources that enable decarbonisation (for example renewable energy).
- Financial support to achieve parity of hydrogen with fossil fuels for applications where hydrogen is considered the best low carbon alternative.
- Policy to encourage electricity generators to support green hydrogen projects and enable competitive pricing for the generation of hydrogen.
- Significant risk for New Zealand if we wait to progress the hydrogen sector - we will be left behind. The sector requires policy and funding to develop. Policy and funding for hydrogen initiatives have progressed in many economies around the world, in particular the USA and in the European Union. This is driving supply pressures, and without progressing it leaves New Zealand's primary industry exports in a position where there are limited options to decarbonise to be comparable with others.

8

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

- The Regional Hydrogen Transition rebate programme design paper has created significant interest from potential dual fuel customers, indicating that incentives to create supply by subsidising demand in the early days will support the development of hydrogen infrastructure.

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?**

Nothing further to contribute

10

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

s9(2)(b)(ii)

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

Nothing further to contribute

**Section 3: Government position and actions**

12 **Do you agree with our policy objectives?**

Nothing further to contribute

13

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

Nothing further to contribute

14

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

Nothing further to contribute

15

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

Nothing further to contribute

### **General comments**

HWR Hydrogen supports the MBIE developing a hydrogen roadmap to create visibility of the hydrogen sector for New Zealand and enable a level of security for those developing hydrogen systems for both supply and demand.

***HWR Hydrogen would like to thank MBIE for the opportunity to submit on the Interim Hydrogen Roadmap, and we welcome further discussions to support the development of the final system.***