[redacted]

From: no-reply@mbie.govt.nz
Sent: Friday, 25 October 2019 3:22 p.m.
To: [redacted] Hydrogen
Subject: Hydrogen green paper - submission
Attachments: [redacted]

Submission on Hydrogen green paper recevied:

Introduction
Name

Anthony McGivern

Email

[redacted]

Business name or organisation (if applicable):

Auckland International Airport Ltd.

Position title (if applicable):

Utilities Performacne Manager - Major Assets

Is this an individual submission or on behalf of a group or organisation?

Behalf of group or organisation

Please give the name of the group or organisation this submission is on behalf of.

Auckland International Airport Ltd.

What is the role of Government in developing hydrogen for storage and distribution?
What are the challenges for using hydrogen for storage and distribution?
What are the opportunities for using hydrogen for storage and distribution?
What is the role of Government in developing the complementary role of electricity and hydrogen?
What are the challenges for achieving this complementary role of electricity and hydrogen?
What are the opportunities for this complementary role of electricity and hydrogen?
What is the role of Government in supporting hydrogen use for the transport sector?
What are the challenges when using hydrogen for mobility and transport?
What are the opportunities for using hydrogen for mobility and transport?
What is the role of Government in encouraging the use of hydrogen for industrial processes including process heat supply?
What are the challenges for using hydrogen in industrial processes?
What are the opportunities for the use of hydrogen in industrial processes?
What is the role of Government in encouraging hydrogen uptake for decarbonisation of our natural gas uses?
What are the challenges for hydrogen to decarbonise the applications using natural gas?
What are the opportunities for hydrogen to decarbonise our gas demand?
What is the role of Government in producing hydrogen in sufficient volume for export?
What are the challenges for hydrogen if produced for export?
In addition, we welcome your feedback about the opportunities of hydrogen to Māori and how this will support their aspirations for social and economic development.
What are the opportunities for hydrogen if produced for export?

If you wish to, you can attach a document to this submission.

[redacted]

Use and release of information
We intend to upload submissions to our website at www.mbie.govt.nz. Can we include your submission on the website?

Yes

Can we include your name?

Yes

Can we include your email address?

No

Can we include your business name or organisation?

Yes

Can we include your position title?

Yes

Can we include the group or organisation your submission represents (if submitting on behalf of a group or organisation)?
If there are any other parts to your submission that you do not want public on the website please note them below:
OIA warning
If there is information in your submission that you wish to remain confidential, please note them below:

Auckland Airport

25 October 2019

Resource Markets Policy
Building Resources and Markets
Ministry of Business, Innovation & Employment
PO Box 1473
Wellington 6140

A vision for hydrogen in New Zealand – Public consultation

1. Auckland Airport welcomes the opportunity to offer our thoughts and perspective on the matters being consulted upon – areas of opportunity for hydrogen energy, resources and technology, and the respective role for Government within this element of our future low carbon-energy economy.

2. Auckland Airport is proud to be an important economic engine for New Zealand, making a significant contribution to the region and helping to grow our country's success.

3. We are building a vibrant transport, trade and tourism hub, supporting growth and prosperity by improving the way people and businesses connect with each other and the world. Auckland Airport itself develops, manages and operates aeronautical infrastructure and also multiple utilities and services in order to facilitate economically efficient and coordinated growth.

4. We are committed to making a positive contribution through our business activities, operating in a way that creates enduring value for New Zealand socially, culturally, environmentally and economically. The key aspects of a potential hydrogen ecosystem that Auckland Airport would like to highlight in interest in over the short to medium term are:

    i) the security and resilience potential to our energy supply from having multiple forms of energy within the portfolio;

    ii) facilitating the provision of utility/energy services and infrastructure to enable the success of our partner organisations and business across our local ecosystem; and

    iii) regulatory stability and equity for the emerging and evolving technologies that could enable investment in necessary infrastructure.

What is the role of Government in developing, and the challenges/opportunities in using hydrogen for storage and distribution?

5. The current economics to establish commercially viable hydrogen generation, distribution and retail are challenging due to a lack of widespread and connected infrastructure to markets. This could induce a technology bias that shifts our economy towards an investment path that delivers lesser benefit over the longer term.

6. Industry business cases can fail to meet the required commercial threshold for private investment due to transmission or distribution investment requirements. However, the relevant project(s) could facilitate the delivery of national targets and represent an

opportunity for Government to consider investment stimulus.

What is the role of Government in supporting, and the challenges/opportunities in hydrogen use for the mobility and transport sector?

7. A potential area of challenge or complexity lies within the unintended consequences of regulatory levers such as the *Energy Innovation (Electric Vehicles and Other Matters) Amendment Act 2017*, which in section 21 (2, b)[1] talks about the definition for an heavy EV as one that derives "…motive power wholly or partly from an external source of electricity."

8. This definition aligns with the practice of recharging a full or hybrid Battery Electric Vehicle (BEV), but not a Fuel Cell-powered Electric Vehicle (FCEV) where the external source of power could be a gas or liquid (e.g. hydrogen). In concert with additional regulation or governance, this technicality could preclude opportunities (e.g. research and development, or investment capital) for hydrogen fuel cell-powered heavy vehicles – which are currently generally perceived as a potential key market for fuel cell technologies.

9. Setting neutral or outcome-focused policy settings and enabling a level playing field for options that reduce our carbon emissions, would enable industry to deliver the results sought by Government.

Yours faithfully,

Anthony McGivern

Utilities Performance Manager – Major Assets
Auckland International Airport Ltd.

[1] Source: http://www.legislation.govt.nz/act/public/2017/0027/latest/DLM7005050.html