

18 August 2023

Hydrogen Review Taskforce
Department of Climate Change, Energy, the Environment and Water
GPO Box 390
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Submitted online

Dear Hydrogen Review Taskforce,

National Hydrogen Strategy Review

The Australian Financial Markets Association (**AFMA**) is responding to the Department of Climate Change, Energy, the Environment and Water's (**DCCEEW**) National Hydrogen Strategy Review Consultation Paper (**Strategy / Consultation Paper**).

AFMA is the leading financial markets industry association promoting efficiency, integrity and professionalism in Australia's financial markets, including the capital, credit, derivatives, foreign exchange, energy, carbon, and other specialist markets. Our membership base is comprised of over 125 of Australia's leading financial market participants, including Australian and foreign banks, securities companies, state government treasury corporations, fund managers, energy firms, as well as other specialised markets, including carbon and other environmental products.

Central to AFMA's work is promoting and supporting the development of sustainable markets. Following the legislation of Australia's climate targets, AFMA welcomes the Government's review of the National Hydrogen Strategy as a next step in Australia's energy transition, addressing challenges in decarbonising industry sectors and supporting the implementation of a transition fuel. As identified by the Climate Change Authority, financial markets will be a key enabler of a prosperous, resilient net zero Australia.

Key Points

- Identifying the sources of long-term demand for Hydrogen will be critical in establishing a viable market.
- Hydrogen is likely to be of most value to sectors with hard to reduce carbon emissions, such as industrial or transportation use.
- Consideration should be given to the extent to which comingling hydrogen with natural gas contributes to least cost emissions reductions.

1. Domestic and international use: how can Australia enable decarbonisation through the development of a clean hydrogen industry?

AFMA considers that hydrogen could play an important role in the transition of the Australian economy to net-zero. As highlighted in the consultation paper, we consider that it is likely to be particularly valuable for industries where it is challenging to move to electricity. We therefore agree with the Grattan Institute's summation on hydrogen's use in industrial settings and would encourage government to progress this. As also touched on in the consultation paper, we likewise assess that hydrogen may also be of efficient value in transportation. As acknowledged in the Consultation Paper,

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we concur that electricity is a better suited transition fuel for residential heating rather than hydrogen, primarily due to potential high-cost burdens on consumers. AFMA therefore thinks hydrogen is most likely to be purchased by industrial users with carbon reduction targets who might otherwise struggle to reduce their emissions. Identifying initial sectors of priority will help ensure that hydrogen is going where it is most of use/ to the right buyer, which will in turn assist market development.

As the Government looks to introduce hydrogen in other sectors and settings, costings will become a greater consideration. It may be the case that hydrogen is not the most efficient or cost saving fuel despite ambition. Particularly in the early years of hydrogen where costs will be at their highest, public and government supported sectors and settings may not be appropriate. Notably, Bloomberg estimated that approximately US\$150 billion of financial support globally would be required before hydrogen can achieve cost parity with natural gas.¹

Therefore, ensuring that hydrogen is being focused to its most appropriate uses, particularly in the early years, will be vital. AFMA affirms that the Strategy needs to take into account building a sustainable product and the eventual market that will develop.

AFMA Recommendations

- I. Policy should focus on supplying hydrogen to difficult to decarbonise sectors of the economy.

2. Targets and mandates

Based on AFMA's experience in other environmental product markets we consider that, subject to an unanticipated decrease in the cost of hydrogen, long term targets will be necessary to support the development of a market. AFMA considers that these targets should be focused in relation to sectors, as proposed by some experts in the Consultation Paper.

AFMA also notes that the consultation paper highlights the NSW Government's Renewable Fuel Scheme. AFMA would encourage government to define and expand on how a similar national target/ scheme would work alongside this existing scheme and clarify the ability to receive subsidies under both.

Much of the discussion about hydrogen has focused on comingling it with natural gas to supply to users. AFMA wants to note that this may not be the most efficient way to achieve the government's emissions reductions goals as at least initially hydrogen is likely to be a high-cost way to reduce carbon emissions. Supplying some hydrogen to all gas users would reduce the overall carbon intensiveness of gas use but it may be more cost effective to encourage electrification where possible (such as commercial and household sectors) and to focus, relatively expensive hydrogen, in sectors that are more difficult to electrify.

AFMA Recommendations

- II. Targets and mandates should focus on difficult to decarbonise sectors.

¹ <https://www.cefc.com.au/media/nhnhw/xu/australian-hydrogen-market-study.pdf>

3. How can we ensure our hydrogen industry develops in a way that benefits all Australians?

AFMA appreciates the rationale and ambition in considering hydrogen for reserve purposes and fuel security purposes and the desire to ensure that a product reserved for these critical purposes is affordable. However, AFMA would caution the Government against this approach at this stage as the hydrogen industry is embryonic, and we consider it premature to consider it a security measure or to consider price regulation. AFMA recommends that the market should be allowed to mature somewhat before these issues need to be addressed.

AFMA Recommendations

- III. The hydrogen market needs to develop further before it can be considered as part of the solution to domestic energy security.
- IV. It is premature to consider price regulation of a developing market.

4. How can we enable a hydrogen export industry (including the export of goods manufactured with hydrogen)?

It is possible that hydrogen will be a lucrative internationally traded fuel for nations who are able to produce at cheapest production cost, by exporting to those with higher costs for a profit. To the extent that Australia becomes a low-cost producer, AFMA supports the Government's ambition. AFMA would caution the Government to consider the economics of hydrogen before relying on exporting as part of the Strategy and when subsidising projects in the event that Australia is primarily an importer.

AFMA Recommendations

- V. Government's initial focus should be on developing a viable domestic market.

5. Using existing gas infrastructure

AFMA notes the consultation paper's question of repurposing existing gas infrastructure to address priority use cases for hydrogen. AFMA would caution the Government in adopting this approach and stress the need to consider the policy intent and that it may not be a good alternative to electrification. Any hydrogen transported through existing gas pipeline infrastructure is going to be commingled with methane and therefore may not as such present the most valuable use, as pure hydrogen is not the end product, rather a subsidiary of gas. AFMA believes this conflicts with the policy intent of hydrogen usage, particularly as the consultation paper notes that hydrogen will contribute between 10% to 33% towards global and Australian emissions reduction.

AFMA Recommendations

- VI. Policy makers should consider if commingling hydrogen with natural gas is an economical viable use of hydrogen.

VII. Policy makers should consult with the gas retailers and traders on the market demand for comingled hydrogen.

6. Investability and market development

AFMA notes the consultation paper questions on further regulatory work required and attracting the necessary investment. For the Australian hydrogen market to move beyond direct government funding there will need to be ongoing private investment. As noted above, target or credit schemes have been critical to the development of other environmental product markets in Australia, and we suggest that a similar scheme could facilitate the development of a domestic hydrogen market.

AFMA Recommendations

VIII. Consideration should be given to developing a hydrogen certificate or credit scheme.

Thank you for considering the points and suggestions raised in this submission. AFMA would welcome the opportunity to discuss this submission further and would be pleased to provide further information or clarity as required. Please contact me via myoung@afma.com.au or 02 9776 7917.

Yours sincerely,



Monica Young

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