

Hydrogen Production Tax Incentive

Submission of The Australian Workers' Union

July 2024

Introduction

The Australian Workers' Union (AWU) is one of Australia's largest and most diverse unions. We represent over 76,000 workers across the country, including thousands in current and emerging hydrogen supply chains. From hydrogen production to transport and offtake - the AWU covers workers at all stages of the molecule's production and use. This includes:

- Civil construction, including hydrogen production facilities, gas pipelines, solar and wind generation sites and related transmission;
- Manufacturing and industry, including major current hydrogen users in ammonia production and oil refining, and future users in facilities requiring high process heat;
- Gas storage; and
- Water infrastructure.

Accordingly, the AWU is the union for hydrogen workers. We understand that Australia is enviably placed to emerge as a leader in large-scale, low-cost production of green hydrogen. Our nation possesses numerous and significant comparative advantages including world class renewable energy resources, abundant land and a highly capable industrial and construction workforce.

We also acknowledge that hydrogen production will underpin much of the Commonwealth's Future Made in Australia' (FMIA) and decarbonisation plans. In the industry sector, existing hydrogen offtakers will shift from grey to green hydrogen as production scales up and it becomes cost competitive to do so. Many other facilities requiring low emissions sources of process heat will also shift towards hydrogen. In particular, the molecule appears critical to emerging production pathways for green metals, where Australia also shows world leading potential.¹ Further afield, it is also likely to be central to achieving abatement in very hard-to-decarbonise industries such as cement production.² Beyond industry, hydrogen is important as a likely abatement pathway for parts of Australia's aviation, shipping, road and rail fleets.³

Direct export is also part of hydrogen's vast economic potential for Australia. However, given its significance to domestic industry, its larger role should be as an input to other products produced in Australia.

Achieving a hydrogen industry of the scale necessary to support this vision won't just drive increased revenue and reduced emissions – it will support tens of thousands of jobs. The AWU estimates that Australia's current pipeline of proposed hydrogen projects, realised in full, would create around 20,000 operational jobs and over 160,000 roles in the construction phase.⁴ The Central Queensland Hydrogen Hub alone is projected to deliver nearly 9,000 jobs, chiefly in construction, over the coming years.⁵ The molecule will support many thousands more indirect jobs, particularly in its essential role in the industry sector of the future.

However, despite Australia's green hydrogen advantage and potential, this is not a future that the market will deliver alone. Certainly not in an optimal manner, from either an economic or an environmental perspective. Green hydrogen faces a significant 'chicken and egg' problem. Despite widespread recognition of its potential and importance, producers are reluctant to invest in a product lacking mature offtake markets. Buyers, in turn, will not adopt green hydrogen until reliable production emerges and a significant price premium over incumbent fuels is addressed.⁶ In addition, private capital will flow to where the totality of conditions, including in relation to public policy, are most advantageous.⁷ Foreign governments have deployed ambitious industry

policy to drive green hydrogen production in support of their own economic and environmental goals - eroding Australia's advantage. The US' *Inflation Reduction Act* stands out as the exemplar in this respect, though EU and Canadian programs also reflect the trend.

These barriers to investment must be overcome by multifaceted support from government. Equally plain is the need to move quickly. The AWU therefore welcomes the range of programs to foster the industry delivered by the Commonwealth through the FMIA scheme. More particularly, a well-designed and administrated Hydrogen Production Tax Incentive (HPTI) will be key to expediting projects and seeing the industry achieve scale as soon as practicable.

The AWU supports many aspects of the HPTI proposed in the consultation paper. However, amendments are required to facilitate supply to domestic users - particularly sites in the industry sector that are likely to depend heavily on the molecule as they reduce emissions. For reasons of both social licence and taxpayer value, the incentive must also be amended to maximise outcomes for workers and the wider community.

The HPTI will demand decade-long commitment and a multi-billion dollar outlay from government - no small measures by the standards of any public policy initiative. But delivered effectively, the incentive can stand as a generationally significant investment in Australian jobs and industrial transformation. The AWU is keen to assist in realising this aspiration - starting with our response to questions raised in the consultation paper, below.

'Please provide any feedback on the proposed eligibility criteria'; 'What obligations should be imposed on potential recipients of the HPTI to ensure the community benefit principles are met?'

Many core eligibility criteria for the proposed HPTI will help ensure the incentive's efficacy. These are welcome and should be implemented.

For example, that credits will be refundable is important to ensuring the scheme can be accessed by all prospective claimants, including those with minimal tax liability. This will prominently include developers that are not initially profitable due largely to the nascency of the green hydrogen market - something the HPTI itself is intended to address.

Also of note is that green hydrogen production requires very large fixed capital investment up front. Among proposed projects in Australia, a majority that have prepared cost estimates for development expect that an outlay of over \$1 billion will be required, while six anticipate costs over \$10 billion.⁸ That the proposed incentive will be uncapped and available over an extended and clearly defined period will help to provide investors the confidence to move forward with such projects. Short duration and 'on again, off again' delivery of incentives has deterred investors targeted by similar programs in the past.⁹ The proposed ten-year duration for fully eligible projects also reflects the approach taken by the US and Canadian Governments with their own hydrogen production incentives - assisting Australia to rise to policy competition from abroad.¹⁰

A requirement that production must occur before 2030 to access the credit in full will assist in bringing projects online quickly. This is imperative given the need for rapid development of the industry. Where production commences after 2030, allowing producers to claim the credit in part

where final investment decision occurred before 2030 is a reasonable means of accommodating projects that experience delays during development.

Likewise, proposed 'deliverability' rules requiring grid-connected projects to match output with electricity from that same grid, but without granular time matching and additionality requirements, appears to represent a reasonable compromise. A combination of deliverability, additionality and time matching requirements would provide the most rigorous means of ensuring that large, grid-connected hydrogen projects do not have adverse consequences for other sites' operations and emissions. However, this may complicate development and risks undermining the HPTI's focus on supporting development in the near term.

We note that US and European Union hydrogen production subsidies both propose to implement more rigorous additionality and time matching requirements in coming years.¹¹ Australia should be guided by this approach – assessing more comprehensive regulation in this area in later efforts to support hydrogen when the industry achieves greater maturity.

Recommendation 1: The following proposed elements of the Hydrogen Production Tax Incentive should be implemented:

- Refundable credits;
- The definite and extended duration of the scheme;
- Requirements around commencement of production and date of final investment decision; and
- Deliverability rules.

End use

Despite its several welcome elements, some facets of the proposed HPTI should be amended to improve its efficacy, support realisation of FMIA's objectives and ensure social licence for the incentive. For one, the proposed HPTI would not include provisions addressing the end use of hydrogen supported through the program – including whether output is exported or utilised domestically.¹²

This is plainly insufficient in its treatment of domestic industry and its workers likely to depend on green hydrogen in the coming years. It should not be the case that, while Australia operates a sophisticated hydrogen production industry – in no small part due to taxpayer support – domestic users cannot secure adequate volumes at reasonable prices due to export market dynamics.

Any such outcome would represent a clear failing, both in its own right and against FMIA's policy framework. The scheme's community benefit principles include 'strengthening domestic industrial capabilities and supply chains'.¹³ Moreover, the government's plans to foster green metals and liquid fuels production industries through FMIA will depend to a large extent on green hydrogen supply.

Australia's experience with LNG exports should provide solemn warning here: Where export offers higher prices, producers will not voluntarily prioritise domestic offtake. The gas industry also reflects the difficulty of regulating to support domestic users after an industry is developed without meaningful export controls.

The AWU recognises that meeting international demand does provide meaningful economic opportunity in its own right, and may well represent a strategic imperative for Australia's partners unable to produce the molecule at low cost. But this should not come at the expense of local industry and workers. Rather, it should drive investment and jobs additional to those required to satisfy domestic needs.

Amendments to the HPTI can ensure the incentive does support local industry and supply chains as they come to rely on green hydrogen. The HPTI should offer 'stackable' credits according to the proportion of offtake a producer supplies domestically. Larger credits than the proposed \$2 per kilogram could be provided to sites according to a tiered scheme reflecting the proportion of its total output supplied to buyers within Australia.

Prioritising domestic offtake will further assist in earning and retaining social licence for the HPTI. This should not be seen as 'nice to have' but a top-level consideration in delivering the incentive. Ongoing attempts by political actors to challenge offshore wind projects by stoking local opposition highlight the real risk that community backlash poses to large green energy developments. This is an acute risk for green hydrogen, given projects will often be high cost ventures co-located with very-large scale renewable energy infrastructure. The best means of securing community buy-in is through community returns in the form of local employment and development outcomes. People should be afforded confidence that a green hydrogen project in their area will always mean jobs and opportunity for them.

Offering credits above the \$2 per kilogram mark will also assist in ensuring the HPTI effectively promotes investment relative to opportunities abroad. We note, in particular, that the maximum credit for green hydrogen production under the *Inflation Reduction Act* is well over double the rate proposed for the HPTI.¹⁴

Recommendation 2: The Hydrogen Production Tax Incentive should include a system of 'stackable' incentives, above the rate of \$2 per kilogram, reflecting the proportion of output provided to domestic offtakers.

Labour conditionality

In addition to the absence of end use incentives, the proposed HPTI provides no reason for an entity receiving the benefit to support positive workforce outcomes. It is critical that the HPTI maximises returns to the workers whose labour will deliver it and the communities that will host and help pay for it. This must be reflected not only in the above requirements to drive domestic offtake, but through regulation requiring producers that utilise the incentive to deliver safe, secure and highly paid jobs.

To this end, the AWU applauds the Commonwealth's high-level goal of promoting 'safe, secure, well-paid jobs and more skilled and inclusive workforces' through all FMIA programs. However, the provisions of the *Future Made in Australia Bill 2024* intended to underpin these outcomes¹⁵ appear unclear and difficult to effectively apply and enforce. This is especially so as regards employer conduct after support has been provided.

Rather than lenient guidance, firm regulation is required to realise community benefit principles pertaining to quality jobs and workforce development. Such rules should be developed and implemented as a matter of priority.

The AWU sees particular merit in a 'two gate' system similar to the tendering models implemented by the ACT and Victoria governments in recent years.¹⁶ Ideally, this would take the form of the planned *Secure Australian Jobs Code* and apply broadly across the Commonwealth's procurement and industry policy agenda – including all FMIA programs and all investments made through its Specialist Investment Vehicles.

The system would require all firms to demonstrate a commitment to positive worker outcomes as a threshold requirement to be considered for support under a particular program, including the HPTI. Businesses would be required to obtain and hold a certificate verifying their commitment to such outcomes. This would be issued by an independent authority following an assessment of the firm. The assessment would verify the business' commitment to quality jobs and skills outcomes, including:

- The existence of an enterprise agreement with a relevant union, or a willingness to enter into such an agreement;
- The firm's history of compliance with industrial law, workplace health and safety standards and other legal obligations to its workforce;
- Its commitment to engaging staff on a permanent basis wherever possible;
- Efforts to engage trainees and apprentices; and
- Where subcontractors are engaged, the use of firms that also hold such a certificate.

After demonstrating it held a certificate, a business could be assessed for support against the discrete criteria of the relevant program or investment vehicle.

Alternatively, the Commonwealth could expand the system of 'stackable' HPTI credits supporting domestic offtake to include requirements pertaining to jobs and skills outcomes. Rather than requiring adherence to the above jobs and skills criteria as a threshold requirement for access to the HPTI, the Commonwealth would offer a larger credit for producers that meet those criteria.

Recommendation 3: The Commonwealth should prescribe strong, enforceable regulation that requires all projects receiving support under Future Made in Australia (including the Hydrogen Production Tax Incentive) to deliver safe, secure, well-paid jobs and worker upskilling.

‘What elements do you consider important for the community that should be reported publicly on the recipients of the HPTI’

Transparency around beneficiaries of the HPTI and the quantum of assistance provided will further assist in ensuring social licence for the program. In addition, the timely and accessible publication of such information will assist unions and other stakeholders to monitor the implementation and efficacy of the HPTI.

For ease of access and to support such analysis, data on the HPTI such be published via a single source operated by the Commonwealth. This should clearly link financial benefits to production sites, their output and key workforce data - including total workers and the proportion of permanent and labour hire employees engaged therein. This information should be maintained via regular updates.

Such an approach would essentially reflect that taken by the Commonwealth with its planned transparency reports for the *Research and Development Tax Incentive*, with additional workforce data to reflect the HPTI’s design and FMIA’s community benefit principles.

Recommendation 4: The Commonwealth should publish a resource providing data concerning benefits provided through the Hydrogen Production Tax Incentive, the output of recipient sites and their workforce.

Looking ahead

The Australian Workers’ Union is committed to supporting the emergence of a green hydrogen industry reflective of Australia’s potential in this space. Ensuring the country not only achieves large-scale production of the molecule, but maximises benefits for downstream industries and their workers, is at the heart of our vision.

We support the Commonwealth’s approach to driving early-stage development through incentives, provided they afford sufficient priority to domestic offtake. But we question whether this approach is likely be sufficient to manage the risks of unregulated export in the long-term. In particular, though we are also strong advocates for the wider FMIA scheme, we note that its success will increase the risk to industry if hydrogen cannot be guaranteed at the requisite volume and competitive prices. A large-scale industry producing, for instance, green iron. or fuel made via the power-to-liquid route, will require vast quantities of green hydrogen.

Australia must never repeat its mistakes with the gas industry. The need for regulation that ensures, rather than merely incentivises, reliable access to green hydrogen has not arrived. But it is certainly foreseeable. Accordingly, the Commonwealth should actively monitor emerging risks to domestic hydrogen supply and actively consider the need for regulatory intervention in the market to ensure adequate supply at reasonable prices.

Recommendation 5: The Commonwealth should actively monitor risks to domestic hydrogen supply and consider regulatory intervention to ensure adequate supply at reasonable prices.

More information

The Australian Workers' Union welcomes the opportunity to contribute further to the consultation or respond to any queries regarding this submission.

References

¹ See for example, https://cpd.org.au/wp-content/uploads/2023/10/20230925-Green-gold-Report___.pdf

² <https://www.iea.org/energy-system/industry/cement>

³ <https://iea.blob.core.windows.net/assets/ecdfc3bb-d212-4a4c-9ff7-6ce5b1e19cef/GlobalHydrogenReview2023.pdf>

⁴

Estimate based on operational jobs estimates provided by proponents of hydrogen production and related projects:
<https://www.industry.gov.au/sites/default/files/2023-12/resources-and-energy-major-projects-2023-data.xlsx>

⁵ <https://www.dcceew.gov.au/about/news/69-million-awarded-central-queensland-hydrogen-hub>

⁶ <https://rmi.org/stacking-rules-bonus-credits-and-the-future-industrial-markets-the-ira-aims-to-create/>

⁷ <https://www.sciencedirect.com/science/article/pii/S0959378024000505>, p. 15

⁸ <https://www.industry.gov.au/sites/default/files/2023-12/resources-and-energy-major-projects-2023-data.xlsx>

⁹

https://www.researchgate.net/publication/352719966_Designing_the_Next_Generation_of_Federal_Tax_Credits_for_Low-Carbon_Technologies/fulltext/60d53658299bf1ea9ebac222/Designing-the-Next-Generation-of-Federal-Tax-Credits-for-Low-Carbon-Technologies.pdf, p. 8

¹⁰ https://theicct.org/wp-content/uploads/2024/03/ID-132-%E2%80%9345V-hydrogen_final2.pdf, p. 2;
<https://distribution-a617274656661637473.pbo-dpb.ca/1bbdefd7a85988c60b360eac7e7f555c515ef9cf03fb906427b2a579342499d8>, p. 1

¹¹ <https://www.csis.org/analysis/how-45v-tax-credit-definition-could-make-or-break-clean-hydrogen-economy>;
<https://www.kslaw.com/news-and-insights/guidance-on-section-45v-clean-hydrogen-production-tax-credit>

¹² Consultation paper, p. 4

¹³ *Future Made in Australia Bill 2024* (Cth), s10(3)

¹⁴ https://media.rff.org/documents/Report_22-13_UNfLJLS.pdf, p. 5

¹⁵ *Future Made in Australia Bill 2024* (Cth), s10(2)-(3)

¹⁶ That is, the ACT's *Secure Local Jobs Code* and Victoria's *Fair Jobs Code*.