



APA Submission

Hydrogen Production Tax Incentive

July 2024





Director
Production Tax Incentives Unit
Corporate and International Tax Division
The Treasury
Langton Crescent
PARKES ACT 2600

Lodged by email: hydrogenproductiontaxincentive@treasury.gov.au

12 July 2024

RE: APA Submission to the Hydrogen Production Tax Incentive consultation

Dear Director,

Thank you for the opportunity to comment on the Commonwealth Government's Hydrogen Production Tax Incentive (HPTI) Consultation Paper (Consultation Paper).

APA is an ASX listed owner, operator, and developer of energy infrastructure assets across Australia. Through a diverse portfolio of assets, we provide energy to customers in every state and territory. As well as an extensive network of natural gas pipelines, we own or have interests in gas storage and generation facilities, electricity transmission networks, and 692 MW of renewable generation and battery storage infrastructure.

We are actively involved in the energy transition taking place across Australia. In August 2022, we published our inaugural Climate Transition Plan which outlines APA's pathway to net zero operations emissions by 2050.

Governments across Australia have recognised that renewable gases, including hydrogen, will be critical to achieving emissions reductions in many sectors of the economy. We therefore support policy initiatives such as the HPTI which will help accelerate the development of these industries.

Our submission below provides responses to the issues raised in the Consultation Paper and we would welcome the opportunity to discuss in more detail. Should you have any questions or queries, please contact Dr Klaas van Alphen on 0448 364 767 or Klaas.vanalphen@apa.com.au.

Regards,

A handwritten signature in dark ink, appearing to read 'Caroline Beattie'.

Caroline Beattie
General Manager Future Energy

1 Submission

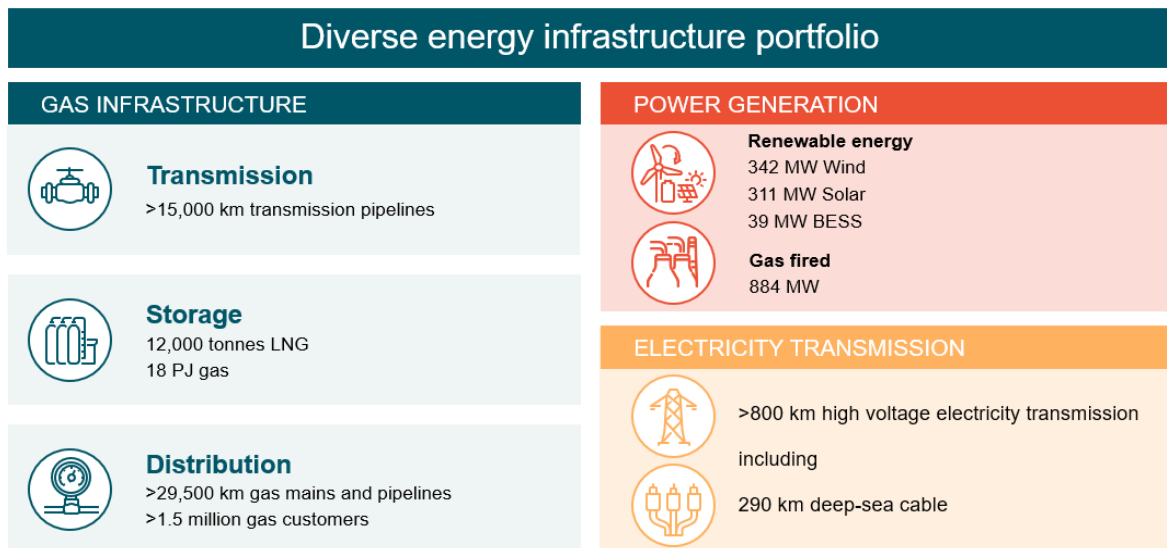
Key points

- APA supports policy initiatives such as the HPTI which will help accelerate the development of the hydrogen industry.
- We support a technology-agnostic approach to hydrogen production.
- Requiring grid-connected electrolyser projects to match their hydrogen production with electricity generated in the same electricity grid could create an uneven playing field between the National Electricity Market (NEM) and other electricity grids.
- Providing flexibility in the duration of the incentive and extending it from 10 to 20 years to match project lifetimes would provide greater certainty for investment decisions.

1.1 APA as a partner of choice in Australia's energy transition

APA is a leading Australian Securities Exchange (ASX) listed energy infrastructure business. Consistent with our purpose to strengthen communities through responsible energy, our diverse portfolio of energy infrastructure delivers energy to customers in every Australian state and territory.

Figure 1: APA's portfolio



Our 15,000 kilometres of natural gas pipelines connect sources of supply and markets across mainland Australia. We operate and maintain networks connecting 1.5 million Australian homes and businesses to the benefits of natural gas. We also own or have interests in gas storage facilities and gas-fired generation.

We operate and have interests in 692 MW of renewable generation and battery storage infrastructure, while our high voltage electricity transmission assets connect Victoria with South Australia, New South Wales with Queensland and Tasmania with Victoria.

APA actively supports the transition to a lower carbon future. In August 2022, we published our inaugural Climate Transition Plan which outlines our commitments to support Australia's energy transition and pathway to achieve net zero operations emissions by 2050. In September 2023 we released our first Climate Report disclosing our progress against our Climate Transition Plan.

At APA, we are actively engaged in projects which support Australia's future fuels industries and their role in the energy transition. Our Parmelia Gas Pipeline (PGP) Conversion Project advances Australia closer to having the first 100 per cent hydrogen-ready transmission pipeline.

As a national and leading energy infrastructure business, APA can support the Government's hydrogen ambitions through the timely delivery of supporting infrastructure. We also have recent experience developing and connecting renewable generation assets to the national electricity grid. Our ownership and operation of generation assets means we are well placed to help facilitate the timely development of industry across the hydrogen value chain. We have:

- extensive experience working with communities
- a track record of partnering with governments in financing and managing delivery contracts and interfaces
- trust from stakeholder groups as a national operator of complex energy infrastructure
- a proven social licence to operate.

We fully support the HPTI proposed under the *Future Made In Australia Act*. While Australia has competitive advantages due to its abundant renewable resources, it is clear that we require a boost in investment to ensure we are competitive with other potential hydrogen competitors, such as the US.

In our view, the HPTI is likely to have positive impact on the emerging hydrogen industry and should help bring projects online. Our submission below provides views on various issues raised in the Consultation Paper and suggests a number of amendments that would create a more supportive environment for investment. Appendix A provides detailed responses to each of the questions outlined in the Consultation Paper.

1.2 APA's growing expertise in hydrogen and renewable energy

Australia has some of the world's best natural resources for producing renewable energy. This is one of the key reasons why hydrogen has been identified as one of Australia's key comparative advantages and one of the logical options to help decarbonise the Australian economy and provide new export opportunities.¹

Much of APA's gas pipeline infrastructure is adjacent to the best geographical areas for hydrogen production in Australia. APA is actively pursuing projects which leverage Australia's extensive renewable energy resources and support the development of the green and low

¹ Australian Government, *Technology Investment Roadmap – First Low Emissions Technology Statement – 2020*, 18.



carbon hydrogen industries. We are actively engaged in projects which support Australia's future fuels industries and their role in the energy transition.

1.2.1 A step closer to Australia's first 100% hydrogen-compatible transmission pipeline

One of APA's key Pathfinder projects, the Parmelia Gas Pipeline (PGP) Conversion Project, is seeking to enable the conversion of around 43-kilometres of the PGP in WA into Australia's first 100 per cent hydrogen-ready transmission pipeline². This project was partially funded by the Western Australian Government's Renewable Hydrogen Fund.

In May 2023 APA announced findings from phase two of the PGP Conversion Project which confirmed the technical feasibility of converting a 43km section of the high-pressure natural gas pipeline to carry 100% hydrogen³. The project will now progress to phase three, which considers preparing the section of pipeline for hydrogen service and will include detailed safety studies and conversion plans. The detailed conversion plans will consider any modifications to ancillary equipment such as above-ground facilities and investigating supply and offtake arrangements required to meet the needs of customers.

Off the back of this research, APA has also developed a Pipeline Screening Tool that provides a high-level assessment of the hydrogen readiness of its pipeline assets, based on key pipeline material and operating characteristics. Initial assessments using the Pipeline Screening Tool indicates there is a high likelihood that around half of APA's natural gas pipeline assets could be used for hydrogen transportation, in 100% pure or blended form, with no, or small, changes to their current operating profile.

1.2.2 Supporting industry's decarbonisation journeys through our Parmelia Green Hydrogen Project

Our Pathfinder team is exploring opportunities with industrial off-takers along the PGP to explore decarbonisation pathways, such as manufacturing value added green products for domestic use.

In parallel to our PGP Conversion Project, a Memorandum of Understanding (MoU) was signed between APA and Wesfarmers Chemicals, Energy and Fertilisers (WesCEF), to progress to a feasibility study for the Parmelia Green Hydrogen Project (PGH2 or The Project).

The Project offers an opportunity to deliver cost-effective large scale green hydrogen to Kwinana, a land-constrained established industrial precinct, and creates optionality for hydrogen use in industrial decarbonisation and growth. The Project will also offer opportunities for the local workforce to upskill in renewable hydrogen generation design and operation.

PGH2 has successfully secured \$1.33 million in funding from the Australian Renewable Energy Agency (ARENA) for the feasibility study⁴. The feasibility study will assess the viability of producing and transporting green hydrogen via the PGP to WesCEF's CSBP ammonia production facility in the Kwinana Industrial Area. WesCEF delivers products for the

² APA, *APA set to unlock Australia's first hydrogen-ready transmission pipeline* (Media Release, 23 February 2021) <<https://www.apa.com.au/news/media-statements/2021/apa-set-to-unlock-australias-first-hydrogen-ready-transmission-pipeline/>>.

³ APA, *Testing confirms technical feasibility of converting gas transmission pipeline* (Media Release, 19 May 2023).

⁴ APA, *ARENA funding boost for the Parmelia Green Hydrogen Project* (Media Release, 21 November 2023)

agricultural, mining, construction and manufacturing sectors, as well as energy for households for cooking, heating and hot water. It builds upon the completion of a pre-feasibility study by APA and WesCEF in 2023. Please refer to ARENA Project page for more information⁵.

1.3 Detailed comments on the proposed HPTI

1.3.1 Tax incentive duration

The proposed HPTI is available in respect of hydrogen produced from eligible facilities for up to 10 years between 1 July 2027 and 30 June 2040. This 10 year duration is likely to be inconsistent with project lifetimes, which are likely to be as long as 20 years.

Providing flexibility in the duration of the incentive and extending it from 10 to 20 years to match project lifetimes would provide greater certainty for investment decisions. This approach would also reduce asset stranding risk by improving profitability over the full asset lifecycle and in turn, increase the likelihood of projects proceeding. Offering the option of spreading the tax credit value over the entire project duration would also provide greater certainty for investors.

1.3.2 Funding Mechanism Flexibility

The Consultation Paper states that payments under the Hydrogen Headstart program will proportionally reduce if a project is receiving the HPTI, maintaining the total value received from both programs consistent with the initial agreement.⁶

This approach is problematic as HPTI is a tax incentive applicable to all hydrogen produced, whereas Hydrogen Headstart is a production credit focused on closing the commercial gap.

In our view, there should be no restrictions on the incentives provided under Hydrogen Headstart and the HPTI (unless incentives under Hydrogen Headstart were agreed prior to the implementation of the HPTI and as such, HPTI was not included in the business case agreed with ARENA).

The receipt of HPTI support should already be considered in the agreed business case between ARENA and project proponents. As such, Hydrogen Headstart funding should be allocated to address any remaining commercial gap that still exists post-HPTI.

1.3.3 Technology-agnostic approach

While the proposed HPTI does not explicitly exclude any hydrogen production pathways, the proposed emission intensity target (0.6kg CO₂e-) may limit hydrogen production to electrolysis, given current technological advances.

Large-scale projects likely require grid connection for several reasons:

- **Land constraints:** Industrial areas suitable for hydrogen production are often near existing industries and have limited space. Grid connection allows access to diverse renewable sources across a wider geographical area.

⁵ ARENA, *Parmelia Green Hydrogen Project Feasibility Study* (Project Page, 24 January 2024)

⁶ Commonwealth Treasury, *Consultation Paper*, June 2024, p8

- **Minimising the Levelised Cost Of Hydrogen:** Grid connection enables access to a broader range of renewable energy sources, potentially reducing reliance on expensive on-site generation and lowering the LCOH.
- **Grid firming:** The current cost of electrolyzers and hydrogen storage necessitates grid firming to manage fluctuations in renewable energy supply.

Green credits, when bundled with grid firming, can significantly decrease the carbon intensity of produced hydrogen. However, their availability might be limited in regions with lower renewable energy generation capacity.

We propose a slightly higher emission intensity target initially. This would allow for including other promising production pathways while grid firming is implemented and accelerate the growth of Australia's hydrogen industry in line with the scheme's objective. As technology advances and the grid integrates more renewables, the target can be progressively tightened to achieve long-term decarbonisation goals.

APA supports a technology-agnostic approach. Other low emission, cost competitive forms of hydrogen production may serve as a transitional pathway in supporting the build-out of the hydrogen industry while the cost reductions are observed in hydrogen produced through electrolysis.

Technological advances may reduce costs further while also improving the carbon intensity of the hydrogen produced. A tiered production pathway, similar to the US Inflation Reduction Act's Section 45V tax credit, would provide necessary support for production pathways with the lowest carbon intensity while building capability and efficiency in other pathways.

1.3.4 Grid connection requirements

The Government is considering requiring grid-connected electrolyser projects to match their hydrogen production with electricity generated in the same electricity grid to access the HPTI.⁷

Further restrictions on hydrogen production in the HPTI could create unintended barriers and an uneven playing field for investors. The NEM is significantly larger than other grid systems in terms of generation capacity and has a higher proportion of renewable energy sources.

Given the renewables required to support hydrogen production, the HPTI may inadvertently favour specific geographical areas.

This is particularly relevant for projects like the Parmelia Green Hydrogen Project located in the WA Wholesale Electricity Market (WEM). Under the proposed grid connection requirements, hydrogen projects in WA could be placed at a disadvantage compared to similar projects in the NEM.

⁷ Commonwealth Treasury, *Consultation Paper*, June 2024, p5

1.3.5 GO Scheme Alignment

Given the reliance of HPTI on the Guarantee Of Origin (GO) Scheme and the ability to obtain certificates, alignment between the schemes is valuable. Currently, HPTI does not impose constraints associated with additionality and time-matching.

However, if the final GO Scheme imposes such requirements, this would inadvertently be reflected in the HPTI. When finalising the GO Scheme, its implications on HPTI should be understood and accounted for.

1.3.6 CPI Adjustment

The \$2/kg tax incentive is not adjusted for inflation, meaning its value depreciates over time. Consideration should be given to indexing this incentive for inflation, noting the costs of operating hydrogen production facilities will likely increase with inflation over time.

1.3.7 Administration and Transparency

It is proposed that HPTI is co-administered by the Australian Taxation Office and the Commonwealth Department of Climate Change, Environment, Energy and Water (DCCEEW), leveraging the GO Scheme operated by the Clean Energy Regulator.

It is essential that the HPTI is designed in such a way as to minimise red tape and the regulatory burden on participants. Recipients of the HPTI may be subject to additional transparency and disclosure requirements to be eligible. Given the reliance on the GO Scheme and the incorporation of community benefits principles under Future Made in Australia, it would be beneficial to leverage these alternative requirements where possible, rather than creating new ones.

Appendix A – Consultation Questions

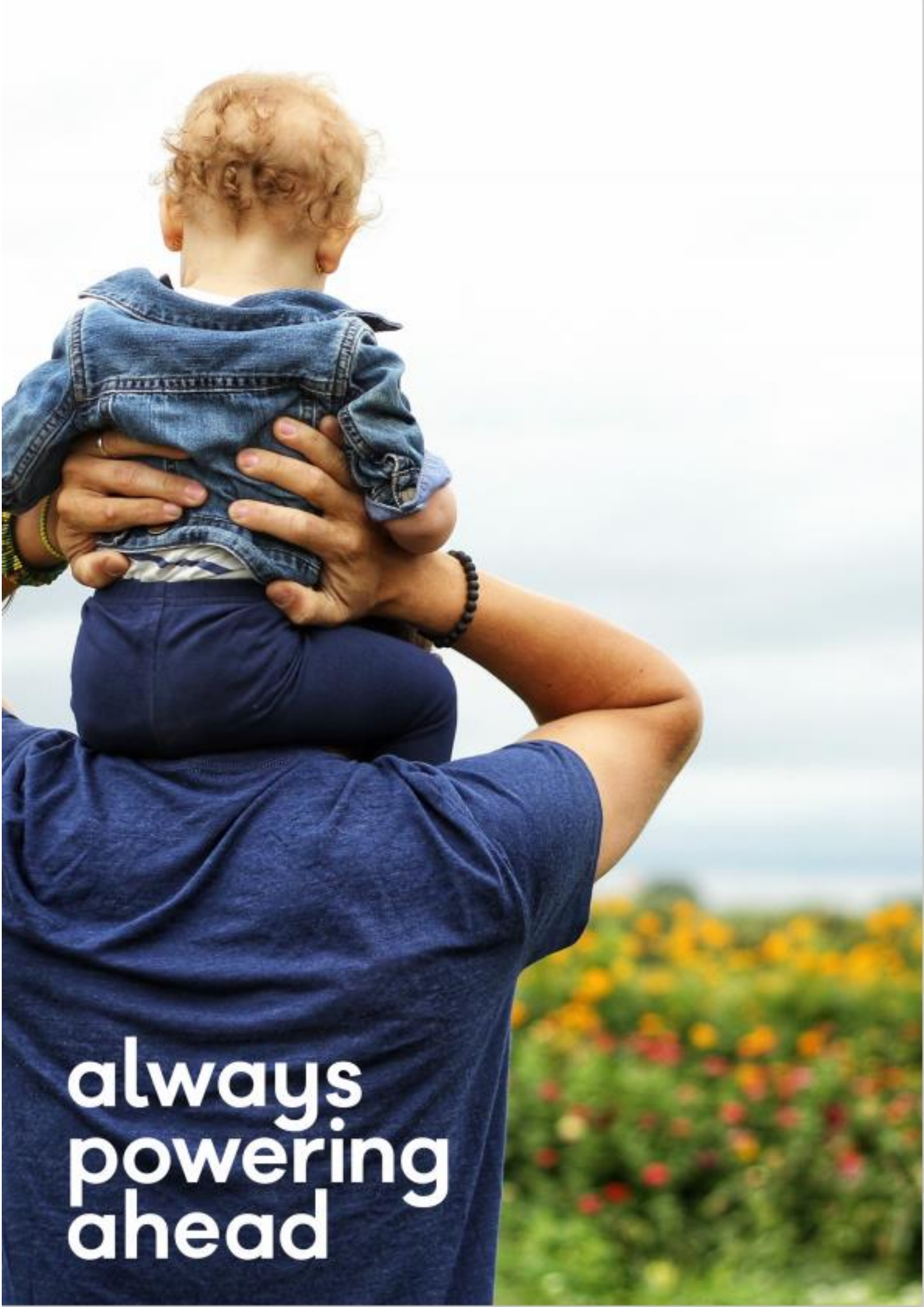
Question	Response
1. Please provide any feedback on the impact this incentive may have on your community, facility or industry.?	<ul style="list-style-type: none"> APA considers that the HPTI will have a positive impact on the nascent hydrogen industry, by helping prospective projects get off the ground.
2. Please provide any feedback on the proposed eligibility criteria.	<ul style="list-style-type: none"> We support the proposal for corporations that are subject to Australian income tax to be eligible for the HPTI. Eligibility for entities should be agnostic of the commercial structure chosen by the project and should include joint ventures that are tax partnerships, entities taxed like corporations (public trading trusts) and trust structures. Hydrogen projects may have a lifespan of 25 years. While we expect the LCOH to decrease over time due to lower capital expenditures (capex) and power prices, initial projects face higher costs initially due to fixed long-term contracts for equipment and energy. Limiting subsidies to just 10 years creates uncertainty for investors, as this mismatch in project lifetime could lead to stranded assets (underutilised equipment) after the subsidy period ends. A more investor-friendly approach would be to offer the option to spread the tax credit value over the entire project duration. This would provide greater investment certainty and encourage participation in the hydrogen economy.
3. What key factors would need to be accounted for in a definition of an eligible facility for the purposes of the HPTI?	<ul style="list-style-type: none"> Leveraging the definitions proposed in the GO scheme and Hydrogen Headstart will ensure consistency and avoid creating unnecessary burdens through additional requirements.
4. What key factors would need to be accounted for in a definition of Final Investment Decision (FID) for the purposes of the HPTI?	<ul style="list-style-type: none"> The definition of Final Investment Decision (FID) can vary across organisations, so it's crucial to avoid overly burdensome requirements. However, aligning with best practice guidelines from organisations like

	ARENA and CEFC is highly recommended to ensure consistency.
5. How long do you expect it will take for projects to reach first production following FID?	<ul style="list-style-type: none"> Large-scale green hydrogen with potential to drive decarbonisation at scale typically to take around 3 years between FID and first production due to supply chain constraints (electrolyser delivery), environmental approvals and stakeholder engagement. Similar considerations apply to renewable energy projects supporting hydrogen production. Therefore, incentives should avoid imposing FID or community benefit requirements that could further extend this timeline.
6. For foreign investors, do you currently encounter any impediments to investment in projects that would be eligible?	<ul style="list-style-type: none"> No comments
7. Please provide any feedback on the proposed emissions intensity threshold of 0.6kg of carbon dioxide equivalent up to the production gate.	<ul style="list-style-type: none"> See Section 1.3.3 of our submission. Projects like PGH2 require grid connection for diverse renewable sources to supplement hydrogen production. Yet, green credit procurement is crucial due to grid carbon intensity. Limited credit availability in some regions can inflate prices, potentially hindering cost-competitive production if stringent carbon requirements are imposed. APA advocates for a technology-neutral approach and a tiered production pathway, similar to the US IRA's Section 45V tax credit. This would prioritise low-carbon pathways while fostering development and efficiency across others.
8. Other than electrolysis, what production processes would meet this emissions intensity threshold now or before 2030?	<ul style="list-style-type: none"> See Section 1.3.3 of our submission.
9. Please provide feedback on the proposed minimum capacity requirement (equivalent to 10 MW electrolyser)?	<ul style="list-style-type: none"> No comments
10. For renewable production processes other than electrolysis, is using the minimum capacity requirement of	<ul style="list-style-type: none"> No comments

<p>“equivalent to a 10MW electrolyser” appropriate? Is another definition of capacity required to deal with other production pathways</p>	
<p>11. Should grid connected electrolyser projects be required to match their hydrogen production with electricity generated by the same electricity grid? Please provide feedback on this proposal.</p>	<ul style="list-style-type: none"> • See Section 1.3.4 of our submission. • Present grid generation capacity and green grid availability across Australia is vastly different. This creates challenges for large-scale renewable hydrogen projects such as PGH2 in the WEM. The substantial renewable energy required for PGH2 will likely necessitate the project to procure green credits outside of the WEM in order to procure sufficient credits at competitive prices. Since green credits are market-driven, regions with limited availability of renewable energy may face higher costs of green credits, ultimately increasing hydrogen production costs. This creates a potential bias towards projects in the NEM with its likely availability of greater green credits.
<p>12. Please provide feedback on the proposal to not include additional requirements on renewable energy generation for access to the incentive, such as additionality and hourly time-matching with hydrogen production.</p>	<ul style="list-style-type: none"> • We support the proposal to not include additional requirements on renewable energy generation, such as time matching and additionality. • A requirement that renewable hydrogen is produced at the same time as the electricity is produced could significantly increase hydrogen production costs, as it provides little flexibility for hydrogen producers to balance electricity supply and load.
<p>Administrative arrangements</p>	
<p>13. Please provide any feedback on the proposed administrative approach.</p>	<ul style="list-style-type: none"> • See Section 1.3.7 • The dual administrative structure will increase associated complexity. It is crucial that the administrative arrangements are streamlined and avoid creating excessive compliance burdens or costs.
<p>14. The proposed GO scheme will be used to support the registration and verification of hydrogen production. Are there any additional factors that would need to be accounted for in the proposed design of that scheme?</p>	<ul style="list-style-type: none"> • Ensuring alignment between the GO scheme and the hydrogen tax incentive (HTPI) is critical. Currently, HPTI eligibility avoids imposing requirements such as additionality and time-matching. However, if the finalised GO scheme introduces these requirements, they might inadvertently be applied to the HPTI. Therefore, it's crucial

	to fully account for the implications of the GO scheme on the HPTI.
15. The Government may legislate the administrative arrangements in subordinate legislation. Please provide any feedback on this proposed approach.	<ul style="list-style-type: none"> No comments
Community Benefit Principle	
16. What obligations should be imposed on potential recipients of the HPTI to ensure the community benefit principles are met?	<ul style="list-style-type: none"> See Section 1.3.7. Instead of imposing new plan requirements on recipients, we advocate for consolidating existing obligations or alternatively revising and expanding existing plans to ensure consistency with that proposed via Future Made in Australia Act. This approach would streamline the process and avoid creating additional burdens.
17. What obligations are potential recipients of the HPTI currently subject to that might support the community benefit objectives (noting these will be finalised under the Future Made in Australia Act)?	<ul style="list-style-type: none"> No comments
18. Are there any additional objectives that you consider important? What obligations might support these?	<ul style="list-style-type: none"> No comments
19. Recipients of the HPTI may be subject to additional transparency and disclosure requirements in order to be eligible. What kind of requirements are appropriate? What are the key practical considerations to take into account when setting the requirements?	<ul style="list-style-type: none"> See Section 1.3.7 Where possible, and to minimise regulatory burden, the HPTI should leverage existing transparency and disclosure obligations.
20. How should entities proposing to claim the HPTI be required to demonstrate compliance with tax obligations?	<ul style="list-style-type: none"> The framework contained within Australia's foreign investment policy (Foreign Acquisitions and Takeovers Act 1975 ("FATA")) should be used, where an entity is subject to the FATA. For entities not subject to the FATA, we would suggest no such requirement. This would align with Australia's existing tax framework and policies.
21. What information do you consider important for the community that should be reported publicly on the	<ul style="list-style-type: none"> We would support the reporting of the amount of credit provided on an aggregated basis (e.g. state wide or across Australia).

recipients of the HPTI such as the amount of credit received?	
22. Who should the reporting requirements be imposed on? For example, on the recipient entity, or central reporting through a regulator?	<ul style="list-style-type: none"> We would support central reporting through a regulator.
Interaction with other government incentives	
23. Please provide feedback on the proposed treatment of the interactions between the HPTI and other forms of Commonwealth, State or foreign government support	<ul style="list-style-type: none"> See Section 1.3.2 We strongly support the proposed HPTI's flexibility to allow projects to stack with other support mechanisms. This includes contracts for difference, grant programs, concessional finance, and international support. While the \$2/kg incentive is a significant step, we anticipate project developers will require additional avenues to further reduce production costs or increase revenues. This stacking approach will be crucial for achieving cost-competitive hydrogen production.
24. How can the HPTI best leverage other types of support? Please provide examples relevant to your project if possible	<ul style="list-style-type: none"> See Section 1.3.2.
25. What are the key practical considerations with receiving support through the HPTI and the Hydrogen Headstart program simultaneously?	<ul style="list-style-type: none"> See Section 1.3.2. While the HPTI will reduce the commercial gap for eligible hydrogen projects, we recommend avoiding limitations on the Hydrogen Headstart credit. Unlike the HPTI, which offers a tax incentive for all produced hydrogen, the Hydrogen Headstart is a targeted production credit specifically designed to bridge the remaining commercial gap. Allowing project developers to access both programs fosters a more robust business case by enabling them to fully address cost competitiveness.
26. Are there specific interactions with other support programs that should be considered?	<ul style="list-style-type: none"> No comments



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