



12 July 2024

The Treasury
Australian Government

Lodged by email: HydrogenProductionTaxIncentive@treasury.gov.au

Dear Sir/Madam,

Response to Hydrogen Production Tax Incentive – Consultation Paper

Origin Energy Limited (Origin) welcomes the opportunity to provide comments on the Hydrogen Production Tax Incentive (HPTI) consultation paper.

Origin is a large Australian integrated energy company with activities in energy retailing, power generation, natural gas production and LNG export. Origin also has recent experience in exploring new product offerings and has focused on areas such as solar and storage, connected homes, electric vehicles (EVs) and future fuels including hydrogen.

Origin is investigating several potential green hydrogen opportunities across Australia. The most advanced project is the Hunter Valley Hydrogen Hub (HVHH), which is being progressed in partnership with Orica. It aims to support a reliable and commercial scale green hydrogen supply chain in the Newcastle industrial and port precinct. The first stage of the HVHH consists of a 50 MW electrolyser, which is expected to produce up to 4,700 tonnes of green hydrogen per year. The majority of the hydrogen will be delivered to Orica, and the remainder made available to other domestic customers. The project is being designed with the potential to be scaled up to an export development in the future.

Origin acknowledges the significant support being provided by the Commonwealth Government for the emerging renewable hydrogen industry, including the Hydrogen Headstart program, the HPTI and the broader Future Made in Australia package.

Overall, Origin generally supports the proposed design of the HPTI in this consultation paper and would support it being implemented through legislation in a timely fashion, preferably in this parliamentary term.

Our key points on the consultation paper include:

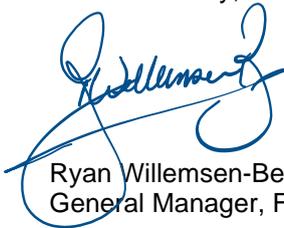
- **Indexing for inflation** – we propose that the incentive should be adjusted for inflation to maintain the same level of support over the 10 years.
- **Interaction with other policies and funding** — given the size of the tax incentive (\$2/kg hydrogen) is not currently sufficient to cover the commercial gap of the production of electrolytic hydrogen in place of incumbent fuels, it is critical that the tax incentive can be accessed in combination with other grant funding, inclusive of projects that receive funding under Hydrogen Headstart. We recognise the need for projects with Hydrogen Headstart to be required to negotiate adjustment revenue payment with ARENA, but maintain that accessing the HPTI is important to support upside production opportunity.
- **Eligible entities** – we suggest that the policy be agnostic as to the type of entity that is seeking to claim the offset. Early projects may make use of varying legal entities depending on the parties involved and a narrow eligibility definition may limit ability to access the policy.

- **Emissions intensity** – the proposed emission intensity of less than 0.6 kilograms of carbon dioxide is considered achievable for renewable feedstock and/or large-scale electrolysis facilities.
- **Hydrogen Guarantee of Origin Scheme** – the consultation paper makes reference to the Hydrogen Guarantee of Origin (Hydrogen GO) scheme being used to validate eligibility for the proposed HPTI. We agree with these positions and recommend that the Hydrogen GO scheme be legislated as soon as possible.
- **Additionality and time matching** – we agree that eligibility criteria including additionality of renewable generation and time-matching are not required at this time. Our preference is to keep the design of the HPTI relatively simple and to align with the Hydrogen GO scheme.
- **Community benefit criteria** – there are existing principles and frameworks for community benefits, including other Federal and State government approvals processes. While it is important for Treasury to ensure a fair and just energy transition, the benefits sharing should be covered by existing frameworks. Any reporting should reflect the requirements of existing frameworks.

Comments on the specific questions in the consultation paper can be found in the following attachment.

We support the intent of the HPTI and welcome further discussion as this policy evolves. We would also support the policy being implemented in legislation in the current parliamentary term to provide improved investment confidence for early-mover projects. If you wish to discuss any aspect of this submission further, please contact Matthew Kaspura at matthew.kaspura@originenergy.com.au.

Yours sincerely,



Ryan Willemsen-Bell
General Manager, Future Fuels & Carbon



Attachment A: Responses to specific consultation paper questions

No	Issue	Origin comment
1	Impact of incentive	<p>Origin welcomes the proposed \$2/kg production incentive and considers its introduction to have positive impacts on the industry’s development. Combined with funding through Hydrogen Headstart and complementary policies, like Future Made in Australia, the HPTI should accelerate the development of a hydrogen industry in Australia.</p> <p>However, the commerciality of large-scale hydrogen projects is challenging and stacked funding with the HPTI will be required to attract investment in projects. In addition, the size of the subsidy is lower than similar mechanisms in other jurisdictions such as the United States’ Inflation Reduction Act’s Section 45V Clean Hydrogen Production Tax Credit (up to US\$3/kg). While for export projects the incentive importantly demonstrates Australian government commitment and contribution to hydrogen projects, it is unlikely to by itself make Australia a relatively lower-cost supplier to its international peers.</p>
	Indexing to inflation	<p>Without adjustment for inflation, based on the Commonwealth Budget 2024-25 CPI inflation forecasts, the value of the HPTI in real terms will reduce by 10% by 2030 and likely by around a third by 2040.</p> <p>We also note that the majority of costs associated with hydrogen projects are largely fixed, both by capital costs associated with electrolysers and capital costs to establish renewable electricity. Projects are unlikely to observe significant production cost declines over the HPTI period and therefore, the commercial gap within a project’s production will likely increase not decrease through time with the HPTI in place.</p> <p>We also note that in the global context, the lack of inflation adjustment also diminishes the HPTI’s impact on Australia’s relative competitiveness through time where other mechanisms are adjusted (such as the United States’ Section 45V credit).</p>
2	Eligibility criteria	<p>Hydrogen industry proponents are likely to form joint ventures to develop production projects. These may take various forms (in addition to incorporated joint ventures). However, the proposed eligibility criteria only contemplate corporations as being eligible for the production incentive.</p> <p>Origin proposes the eligibility criteria should be entity-agnostic, thereby extending eligibility to corporations, trusts, and partnerships. This more inclusive approach will significantly enhance the effectiveness of the incentive by including a broader set of eligible applicants.</p>
3	Definition of eligible facility	<p>Origin supports the definition of a facility being that FID is required for each eligible HPTI project.</p> <p>Certification methodology for the Guarantee of Origin (GO) Scheme that could impact the definition of renewable hydrogen.</p>
4	Definition of Final Investment Decision	<p><i>Factors for projects</i> - A level of certainty from Treasury that the incentive will be made available to a project before a company can take a Final Investment Decision (FID). For example, a letter of eligibility or confirmation of eligibility might be required from a Project or Project Board as a pre-condition for</p>

		<p>FID. Policy certainty and stability that ensures the Hydrogen Production Tax Incentive will withstand changes in government or new/ updated policies is also crucial.</p> <p><i>Factors for Government</i> - Projects should be able to provide FID certainty via Board or CEO approval of the decision. This could be made via letter to Treasury or as part of the applicant process. However, it should be noted each business will have its own definition of FID and pre-conditions to take FID.</p>
5	Time to first production	<p>Timeframes for construction can vary depending on Federal and State government approvals processes, availability and cost of contractors for construction, offtake agreements, procurement and finance, and stacked funding.</p> <p>Origin's expectations and forecasts for construction activities on a 50MW facility is currently multi-years from FID (depending on approvals and finance as pre-conditions). We encourage consideration of a production deadline for the HPTI rather than an FID decision to avoid delays in accessing the incentive.</p>
6	Foreign investors	<p>The complexity of Australian and international funding schemes could present challenges for international investors or partners. At present, there is minimal consistency across eligibility for funding mechanisms across jurisdictions and this presents a challenge to agree to an appropriate partnership arrangement.</p> <p>Partnerships or joint ventures with international investors would need to consider an appropriate commercial vehicle to enable Australian and international funding. In some cases, international investors would need to weigh up whether the HPTI presents the best or most economic option.</p> <p>Approvals from the Foreign Investment Review Board will also need to be considered by international investors.</p>
7	Emissions intensity	<p>The emission intensity of less than 0.6 kilograms of carbon dioxide is considered achievable for renewable feedstock and/or large-scale electrolysis facilities.</p> <p>Consideration for technologies other than electrolysis is seen as important for future research and development of hydrogen and hydrogen derivatives. By taking an integrated systems approach for carbon intensity, the government can incentivise hydrogen generation from electrochemical processes. This could see the production of hydrogen and hydrogen-based low carbon liquid fuels, like methanol and biogas, produced from the same facility.</p>
8	Other production processes	<p>Origin's experience suggests that gasification and pyrolysis could fall within the proposed threshold for emissions intensity with the use of the right feedstock. We believe that the incentive scheme should be technology agnostic to allow for greater innovation, hubs concepts and sector coupling to be effective. The principles of the Hydrogen GO Scheme should be considered when finalising the emissions intensity and eligibility requirements.</p>
9	Minimum capacity	<p>The proposed minimum capacity for an electrolyser is consistent with the current or standard baseline electrolyser in 2024.</p>
10	Minimum capacity – other processes	NA

11	Grid connection	<p>Any additional requirements for hydrogen producers to match generation from the grid are not supported. This proposal could result in increased costs and complexity for hydrogen producers that are unnecessary.</p> <p>Origin supports the existing National Electricity Market principles for industrial load and the carbon accounting approaches proposed by Guarantee of Origin (GO) or Renewable Energy Guarantee of Origin (REGO) for renewable hydrogen.</p>
12	Additionality and time-matching	<p>Origin agrees that eligibility criteria including additionality of renewable generation and time-matching are not required at this time.</p> <p>Time matching in shorter intervals could present challenges during operation of the hydrogen production facility that lead to increased electricity costs, loss of project value and reduction in the competitiveness of this emerging industry.</p> <p>Any requirement for time-matching or additionality needs to be supported by the renewable fuels end user and the commerciality of the particular application.</p>
13	Administrative arrangements	<p>The approach to using the existing Pay As You Go (PAYG) tax process is supported.</p> <p>Treasury, the ATO and DCCEEW will need to work closely to implement the HPTI and ensure government is aligned on the technical and eligibility requirements for projects. This is particularly important for those projects accessing both the HPTI and the Hydrogen Headstart Production Credit. A streamlined process between government departments is requested to effectively, consistently, predictably and efficiently process HPTI applications and payments.</p> <p>The R&D tax incentive presents an existing and effective framework for verifying and administering support for projects. This approach would require the GO Scheme legislated and in place to register projects with the Clean Energy Regulator.</p>
14	Hydrogen GO	<p>The government should prioritise legislating the GO Scheme, recognising its critical role across a range of policies, including the HPTI. Origin supports the proposed Hydrogen GO scheme and supports this being implemented in a timely fashion.</p>
15	Legislative approach	<p>Origin would support the high-level design of the HPTI being implemented in legislation in the current parliamentary term.</p>
16	Community benefits principles	<p>Origin has reviewed the draft principles under the Future Made in Australia policy and recognise the importance of co-benefits and transparency when it comes to major projects. We acknowledge the importance local communities will have on the success of the energy transition and industry's role in ensuring a fair and just transition.</p> <p>Regarding the application of the principles to the HPTI there must be consideration by Treasury for the mechanism supporting this incentive (being tax) and the existing requirements for projects when it comes to community benefits. This includes Federal, State and Local government approvals processes that require Industry Participation Plans, Environmental Management Plans, the Stakeholder Management Plans and the Cultural Heritage Management Plans.</p>

		There are existing principles and frameworks for community benefits. While it is important for Treasury to ensure a fair and just energy transition, the benefits sharing should be covered by existing frameworks.
17	Existing obligations	Existing obligations that may be relevant include: <ul style="list-style-type: none"> • Federal government approvals processes for Major Projects and Environmental Impacts • State government approvals processes for Major Projects and Hazardous facilities • Local Government approvals process for new developments • First Nations Clean Energy Council engagement principles • Consideration for the Australian Infrastructure Commissioner community engagement principles • Origin Energy's Reconciliation Action Plan, Local Content and Procurement Guidelines, Future Fuels Community and Stakeholder Engagement Framework.
18	Additional objectives	NA
19	Disclosure requirements	Principles that uphold commercial in confidence materials should be upheld with each applicant. Terms sheets and reporting requirements should be negotiated prior to eligibility being determined.
20	Demonstration of tax compliance	If the entity claiming the HPTI is subject to Australian corporate and taxation law, it is not clear why any further demonstration would be required.
21	Public reporting	The proposed reporting appears to be above the requirements for other tax incentives and grants. In our experience, grant-giving bodies report aggregated data, for example fuel tax credits. An alternative could be similar reporting and auditing requirements as those used by the Clean Energy Regulator for the National Greenhouse and Energy Reporting (NGER) scheme . Recommendations to include information about hydrogen produced and the basis for the incentive should be sufficient.
22	Reporting obligations	Centralised reporting via a regulator is recommended. For example, the role of the Clean Energy Regulator in reporting on the NGER scheme.
23	Interactions with other policy	Hydrogen projects will need support on the production and demand sides to be effective. The HPTI should be designed so it can be stacked with other grants, funding or production credits. In particular, for the HPTI to be successful, the legislation of the Guarantee of Origin Scheme is required to tie back to a common certification and reporting.
24	Examples	<ul style="list-style-type: none"> • Federal policies including Hydrogen Headstart, Advancing Renewables Program, Safeguard Mechanism, Future Made in Australia and any Net Zero policies (6). • State-side policies, such as Capacity Investment Scheme (NSW) and the Renewable Energy and Jobs Plan (QLD).
25	Practical considerations when considering Hydrogen Headstart and HPTI	Origin suggests that the simplest way of implementing the incentive would be making the tax incentive available regardless of other funding. The responsibility would be for successful Hydrogen Headstart proponent(s) and ARENA to manage the Headstart payments.
26	Other policy support	It is critical that different initiatives are able to work together for those projects that are eligible.