

22 July 2024

Director
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via email: HydrogenProductionTaxIncentive@treasury.gov.au

Re: Northern Territory Government Response – Hydrogen Production Incentive Tax consultation

Thank you for the opportunity to provide feedback on the proposed design and administration details of the Australian Government's **Hydrogen Production Tax Incentive (HPTI)**, which was announced in the 2024-25 Budget, as part of the Future Made in Australia¹ package.

The Northern Territory Government acknowledges this consultation process will assist to inform the final design, administration arrangements, and the drafting of legislation to implement the HPTI, ahead of its planned 1 July 2027 commencement.

This response to the HPTI consultation paper is not confidential and can be published.

The Northern Territory

Renewable hydrogen presents a significant longer-term opportunity for the Northern Territory to reduce emissions and drive economic growth. It will play an important role in achieving net zero emissions by 2050, particularly for the decarbonisation of hard-to-abate sectors.

The Northern Territory is well-placed to support a local and export-scale hydrogen industry, leveraging our competitive advantages to meet the growing global demand for renewable hydrogen, including:

- Abundant renewable energy resources, including globally competitive solar and wind resources and large areas of land with potential for development;
- Demonstrated experience and capability in delivering world-scale energy production and export projects, and the ability to adapt these skills to hydrogen projects;
- Strategic location in close geographical proximity to key international export markets;
- A well-developed infrastructure network to support an export-scale hydrogen industry, including deep-water ports, electricity and gas networks, road and rail.

¹ <https://budget.gov.au/content/03-future-made.htm>

Northern Territory Renewable Hydrogen Master Plan

In 2021, the Northern Territory Government released its Northern Territory Renewable Hydrogen Master Plan², which provides a framework for the development of a renewable hydrogen industry in the Northern Territory with a focus on enabling activities required to secure private sector investment, including:

- Fit-for-purpose hydrogen regulations and legislation
- Territory-wide renewable energy resource assessments
- Strategic water and land use planning
- Workforce, skills and supply chain capability development
- Fostering research and innovation
- Assessment of early commercial applications to grow demand

The intent of the HPTI aligns with the Northern Territory's ambitions, as outlined in our Master Plan.

Middle Arm Sustainable Development Precinct

The Northern Territory Government is working with industry and the Australian Government to transform 1,500 hectares of land at Middle Arm, adjacent to Darwin Harbour, into a globally competitive, sustainable industrial precinct. The precinct will include processing, production and export facilities with a focus on low emission, renewable hydrogen, carbon capture storage and critical minerals processing.

The Northern Territory Government has committed over \$28 million to support detailed design, strategic environmental assessments, business case development and preliminary infrastructure works. Additionally, the Australian Government has committed \$1.5 billion in planned equity to support the construction of common user marine infrastructure, including modular offloading facility, a common user wharf, and widening of shipping channels, to fast track precinct development.

Project Facilitation

To date, there has been significant interest in the Northern Territory as a location for large-scale hydrogen production projects, and in order to capitalise on this, the Northern Territory Government is taking a proactive approach to support and facilitate projects of economic significance from development through to operation. Major Project Status is granted to significant, complex projects (including large-scale renewable hydrogen production) which have strategic and economic impact.

Darwin H2 Hub

In August 2022, the NT Government signed a Memorandum of Understanding with international renewable energy company TE H2 Australian Pty Ltd to develop the Darwin H2 Hub, a new export-scale green hydrogen and ammonia project. With production facilities proposed to be located at the Middle Arm Precinct, it is expected to have an estimated annual renewable hydrogen production of more than 75,000 tonnes. In January 2024, the NT Government awarded 'Major Project Status' to the Darwin H2 Hub development.

² https://territoryrenewableenergy.nt.gov.au/__data/assets/pdf_file/0018/1057131/nt-renewable-hydrogen-master-plan.pdf

Northern Territory Government's response to the HPTI consultation paper

The Northern Territory Government supports the establishment of clear and practical eligibility criteria to ensure the HPTI effectively supports the accelerated production of renewable hydrogen in Australia. This targeted incentive should be designed to:

- bring forward project development, assisting large-scale renewable hydrogen production projects reach final investment decision sooner;
- facilitate earlier availability and supply of renewable hydrogen in Australia to support early-stage domestic decarbonisation and heavy industrial uses;
- ensure that remote and regional Australia, where significant opportunities exist for a new renewable hydrogen to deliver long term economic and social outcomes for First Nations Australians, are clear beneficiaries of the initiative; and ultimately
- build scale to reduce production costs and close the commercial gap over time.

It is noted that the proposed requirement for eligible facilities to be 'located on a single site' should only refer to the renewable hydrogen production facilities. Other project components, such as renewable energy generation and downstream manufacturing activities should be able to be undertaken elsewhere.

Incentive amount

The Northern Territory Government welcomes the HPTI, which is expected contribute to the accelerated development several large-scale hydrogen production projects in the Territory and may assist in bringing forward other potentially viable projects.

A key consideration in both scheme design and the incentive amount is impacts for projects in regional and remote Australia. Consideration needs to be given how the HPTI can level the playing field for such projects given their higher cost structures. In the Northern Territory, these projects are critical to ensuring First Nations Australians are equally able to access and participate in the significant economic opportunities which an accelerated hydrogen industry has the potential to secure. A specific loading for remoteness could be considered.

The broader practical impact of the HPTI should be earlier availability of a supply of domestically produced renewable hydrogen, which will be critical for enabling early-applications of hydrogen and achieving emissions reductions in key local sectors, particularly hard-to-abate industries, required for Australia to achieve net zero.

Based on recent analysis, the estimated cost to produce renewable hydrogen at large-scale in Australia is around \$4 to \$8 per kilogram, with an estimated commercial gap of around \$2 to \$6 per kilogram³. This gap means that Australian renewable hydrogen projects are currently at the demonstration phase and likely require financial support from government to meet private investment thresholds in the near term.

Similar hydrogen production incentives have been introduced overseas, such as the United States' equivalent Clean Hydrogen Production Credit⁴ of up to USD\$3.00 per kilogram (equal to around

³ <https://arena.gov.au/blog/australias-pathway-to-2-per-kg-hydrogen/>

⁴ <https://www.energy.gov/articles/clean-hydrogen-production-tax-credit-45v-resources>

AUD\$4.50), which is more than double the proposed HPTI incentive amount, although against much tighter eligibility requirements.

The proposed incentive amount of \$2 per kilogram, while a welcomed initiative, is at the lower end of the current commercial gap and is unlikely to be sufficient, at least for Northern Territory hydrogen projects, on its own. In addition to the NT Government view above that a loading to recognise locational factors should form part of scheme design, a broader suite of project supports will be critical.

Eligible Production

The HPTI is proposed to be made available to corporations that are subject to Australian income tax during the relevant income tax year. This is appropriate to ensure that projects are delivered in Australia.

The HPTI requires each kilogram of renewable hydrogen to be produced with an emissions intensity *less than or equal to 0.6kg of carbon dioxide equivalent from well to the production gate*. Again, the NT Government calls out projects in remote and regional Australia. It will be important to ensure that projects in remote areas, which involve transportation across vast distances, are not penalised as a result of their location. This is particularly relevant in the lead up to 2030 and while there are limited low carbon transport alternatives available for commercial use.

Large-scale renewable hydrogen projects currently under development in the Northern Territory are proposed to be powered by a combination of wind and solar for electrolysis. More specific details of the proposed projects can be found on the CSIRO HyResource Project database:
<https://research.csiro.au/hyresource/projects/>

Minimum electrolyser capacity

The proposed design of the HPTI includes a requirement for the production facility to have a minimum capacity equivalent to a 10MW electrolyser on a single site. The HPTI does not identify a maximum project size, which strengthens the incentive for large export-scale development. However, it also penalises the projects which, arguably, most demand support.

While large-scale projects currently under consideration in the Northern Territory are primarily focused on export-scale hydrogen and ammonia production facilities, which are expected to meet the minimum electrolyser capacity required to qualify for the incentive, the NT Government is exploring opportunities for renewable hydrogen in power generation for remote communities. The NT Government's Remote Power System Strategy⁵ (RPSS), targets an average 70% renewable energy in 72 remote Aboriginal communities, to displace the reliance on diesel generation.

While the RPSS is planned to be largely driven by solar power, this could be complemented with renewable hydrogen for overnight demand and energy storage. The power requirements for the remote communities in the Northern Territory can range from around 200kW to 3MW (community sizes range from around 100 to 3,000 people), which is substantially lower than the proposed HPTI minimum size capacity of 10MW.

Another potential use case for renewable hydrogen in the Northern Territory is the decarbonisation of remote mining operations, including for both remote power generation and powering heavy-vehicles and machinery, where fossil fuel remains the most cost competitive commercial proposition.

⁵ <https://territoryrenewableenergy.nt.gov.au/strategies-and-plans/remote-power-systems-strategy>

Smaller hydrogen production activities, for example the RPSS, must not be disadvantaged and must be able to equally access the HPTI. It would not be appropriate for these smaller projects to be directed to project support frameworks under other unspecified or non-renewable hydrogen specific schemes.

The HPTI eligibility criteria needs to consider the unique context of all jurisdictions, including regional and remote Australia, and allow equitable access to the incentive noting the broader outcomes and opportunities which can be secured.

The intent behind the proposed approach to include specific requirements for grid connected electrolyser projects is recognised. However, Northern Territory has small standalone electricity grids, distinguishable from the national electricity market. The HPTI needs to recognise this.

Administrative arrangements

The HPTI is proposed to be co-administered by the Australian Tax Office and DCCEEW, leveraging relevant accreditation regimes such as the GO Scheme (to be operated by the Clean Energy Regulator). The NT Government has no immediate concerns with this.

Certainty, transparency and regulatory efficiency will be key to a well-functioning HPTI.

Community Benefit Principles

The NT Government repeats its position above that there is significant opportunity for the HPTI to leverage strong outcomes for remote and regional Northern Territory provided these objectives and priorities can be captured in the HPTI design from the outset. Place based contexts are critical, as is commitment to ensuring that First Nations communities are able to directly share in targeted outcomes.

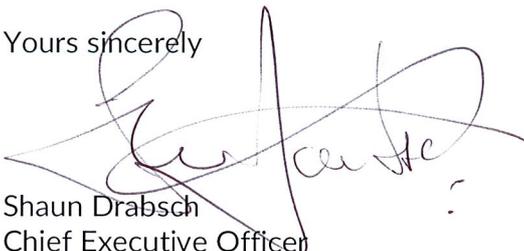
In addition to place based contexts, in determining the specific community benefit criteria, it will be important to consider and balance each jurisdiction's different stage of industry development, including factors such as the maturity of local supply chains and availability of a local workforce. The community benefit principles need to be integrated in a pragmatic way such that they do not inadvertently result in inequity or disadvantage because key place based differences are not recognised and addressed.

The overall intent of the HPTI aligns with the Northern Territory's ambitions, as outlined in our Renewable Hydrogen Master Plan. Renewable hydrogen presents a distinct opportunity to foster remote and regional development and recognising the imperative of an equitable energy transition, we highlight that the importance of considering the remote and regional contexts.

Overall, the Northern Territory is supportive of the HPTI. We acknowledge the significance of the Future Made in Australia plan and the role it will play in attracting and enabling investment in renewable hydrogen. The NT Government looks forward to continuing to work closely with the Australian Government to support development of a robust renewable hydrogen industry in Australia.

For further information regarding the feedback provided in this response please contact Ms Zoe McManus, Director Renewable Hydrogen via Renewable.Hydrogen@nt.gov.au.

Yours sincerely



Shaun Drabsch
Chief Executive Officer