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Production Tax Incentives Unit  
Corporate and International Tax Division  
The Commonwealth Treasury  
Langton Crescent, Parkes, ACT 2600



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## **Re: Hydrogen Production Tax Incentive: Consultation Paper**

Dear Adrian Gebers,

Jemena welcomes the opportunity to respond to the consultation on the proposed hydrogen production tax incentive (HPTI), which forms part of the Government's Future Made in Australia package announced in the 2024-25 budget.

Jemena owns and operates a diverse portfolio of energy assets throughout the northern and east coasts of Australia. With more than \$12 billion of major gas and electricity infrastructure, we deliver energy to millions of households, institutions, and industries every day. Our assets include the Jemena Gas Network in New South Wales, the Jemena Electricity Network in northwest Melbourne and gas transmission lines such as the Eastern Gas Pipeline, Queensland Gas Pipeline and Northern Gas Pipeline.

As an integrated energy infrastructure and services company, which owns, operates, designs, constructs and maintains both gas and electricity assets, we recognise our responsibility to make changes to how we operate to help Australia meet its net zero emissions targets, while retaining system reliability. We are seeking to address our own emissions to achieve our 2050 net-zero ambition, as well as using existing technologies and supporting the development of new technologies to deliver choice in renewable energy sources.

At Jemena, we see gas as a fuel in transition, not just a transition fuel. Today, Australians – and our trading partners – rely on Australia's natural gas resources. Tomorrow, this demand for Australian energy is increasingly likely to come from clean energy embodied goods, derived from feedstocks such as biomethane and renewable hydrogen. By displacing increasing amounts of natural gas with these low-emission alternatives, we believe that existing gas infrastructure can play a critical role in a more stable and cost effective transition to 2050.

In partnership with the Australian Renewable Energy Agency (ARENA), we have developed a renewable hydrogen blending facility. This project illustrates Jemena's initiative to demonstrate the potential of hydrogen and its ability to reduce Australia's domestic emissions by displacing natural gas use in Australian households and businesses.

### Box 1: Western Sydney Hydrogen Hub

The \$15 million ARENA co-funded Western Sydney Hydrogen Hub is a demonstration project which includes:

- a 500kW electrolyser (to produce renewable hydrogen using electricity from the grid and offset using GreenPower);
- a 335-meter buffer pipeline (to demonstrate green hydrogen storage in the gas network);
- a hydrogen injection panel (which is currently able to blend up to 2 per cent renewable hydrogen into the Jemena gas network); and
- power generation equipment (to test the production of hydrogen-powered electricity generation).

The project demonstrates the potential to store renewable energy as renewable hydrogen using a dedicated hydrogen storage pipeline. This renewable hydrogen can then be blended into the gas network or produce electricity utilising the onsite fuel cell and microturbine for export into the National Electricity Market.

### Key points

- The Hydrogen Production Tax Incentive eligibility requirements should be extended to allow projects under 10MW to be considered.
- To realise the full potential of the Future Made in Australia ambition, the government must heed the Climate Change Authority's advice<sup>1</sup>, and strengthen its efforts in recognising the emission reductions of renewable gases (including hydrogen) in its National Greenhouse-gas Emission Reporting scheme. This will foster demand for renewable gases from large industrials, and enable them to reduce their emissions while producing clean energy embodied goods.
- The decarbonisation of Australia's electricity grids is ground-zero for the government's Renewable Energy Superpower ambition, and legislated emissions reduction targets. Strong attention must be given to ensuring the Future Made in Australia production incentives support, and not hinder, the transition of the electrical grid.

For more information regarding Jemena's submission or to arrange a discussion please contact Joeb Northey, Policy Manager via [joeb.northey@jemena.com.au](mailto:joeb.northey@jemena.com.au).

Yours sincerely,

*Shaun Reardon*

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Executive General Manager, Shaun Reardon

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<sup>1</sup> 2023 NGER Review – Climate Change Authority (source: [climatechangeauthority.gov.au/sites/default/files/documents/2023-12/2023 NGER Review - for publication.pdf](https://climatechangeauthority.gov.au/sites/default/files/documents/2023-12/2023%20NGER%20Review%20-%20for%20publication.pdf))

## Appendix A Consultation questions

### Eligibility

Question	Jemena Response
Please provide any feedback on the impact this incentive may have on your community, facility or industry.	As our facility is 500KW we would like the threshold for projects to be reduced to 500KW so therefore the HPTI could ensure this project moves from a test phase into a commercial phase post 2027. The risk otherwise is the project is ended and the electrolyser decommissioned
Please provide any feedback on the proposed eligibility criteria.	Projects that reach FID post 2030 but before 2040 should still be eligible for HPTI credits just for a shorter time horizon. This will continue to promote projects to be developed post 2030. Also to incentivise projects to expedite production before 2030, projects that reach this milestone pre 2030 should receive HPTI for longer than 10 years, e.g. if they come online in 2028, they receive the incentive for 12 years. This will help to expedite project uptake before 2030, and help the Federal Government to reach their 2030 emission reduction targets.

### Eligible production

Question	Jemena Response
Other than electrolysis, what production processes would meet this emissions intensity threshold now or before 2030?	Steam methane reforming (SMR), using biomethane as the feedstock would meet the suggested emissions intensity and could provide the cheapest hydrogen to market before 2030. As SMR plants are already decapitalised, they could play an important role in delivering lowest cost hydrogen into the market in the immediate term. This would bolster the Australian circular economy by providing demand pull-through for projects capturing and upgrading biogas, all the way through to providing low-cost hydrogen.
Please provide feedback on the proposed minimum capacity requirement (equivalent to 10 MW electrolyser)?	Projects smaller than 10MW should be eligible and considered for funding where they maximise the diversity of potential end use applications for hydrogen as a decarbonisation mechanism. It will also allow different technology providers and market approaches to be developed concurrently and electrolysers sized for their best end use application.  Due to the cost constraints around distribution of hydrogen, a higher number of smaller projects co-located with their end use, or utilising existing pipeline infrastructure and blending hydrogen into natural gas is a more complete approach. There are certain applications – such as gas blending into networks that lends itself to smaller projects that are sized in relation to the natural gas flow rate and a blending percentage of 10%. For example, if the main offtake for a project is hydrogen blending to 10% (the current NSW Government Hydrogen Strategy target) the flow rate from the electrolyser needs to be matched to the natural gas flow in that area of the network.  For example, a 10% blend of hydrogen (by volume) in the Jemena Network requires electrolysers ranging from 500kW to 70MW and must be matched in location to the pressure reduction stations. The Jemena Network could facilitate the offtake of a total of 175MW of electrolyser capacity.
For renewable production processes other than electrolysis, is using the minimum capacity requirement of “equivalent to a 10MW electrolyser” appropriate? Is another definition of	If the minimum deployment size of the project is not reduced from 10MW, consideration should be given to funding aggregated smaller projects to create scale. The benefits of this approach would be the economies of scale in procuring equipment and shared resources across the projects whilst also supporting more than one industry to decarbonise.

capacity required to deal with other production pathways?	
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.	Electrolyser projects should be required to match their hydrogen production with electricity generated by the same electricity grid. This will ensure projects go to where there is abundant, low-cost renewable energy. It will also ensure grid stability is maintained. With the Government's 82% target under pressure, efforts to establish a nascent hydrogen industry must not come at the expense of a successful transition of the electricity grid.
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.	Time-of-day offsets should be included for all renewable energy projects across the gas and electricity sectors in line with the Renewable Energy Guarantee of Origin time-of-day certificates coming into effect in 2030. This ensures that the decarbonisation gained from projects continues into the future and correctly demonstrates the balancing of the energy system overall, while not hindering first movers prior to 2030.

## Interaction with other government incentives

Question	Jemena Response
Please provide feedback on the proposed treatment of the interactions between the HPTI and other forms of Commonwealth, State or foreign government support.	The HPTI should be stackable with other support mechanisms. This is the quickest way to establishing a domestic hydrogen industry, in the face of increasing global competition for clean energy industries. It will also have flow on effects for clean energy embodied goods that rely on hydrogen as a feedstock or for combustion.
How can the HPTI best leverage other types of support? Please provide examples relevant to your project if possible.	<p>Jemena strongly supports the allowance of multiple support mechanisms across jurisdictions. It is important all ends of the market for a nascent industry (i.e. biomethane and hydrogen). This will help to support both the cost of production, and demand certainty.</p> <p><i>Case study</i></p> <p>The New South Wales Renewable Fuel Scheme (NSW RFS) is targeting 8,000,000 GJ of renewable hydrogen by 2030, funded by NSW gas retailers and wholesale gas consumers. This scheme has similarities to the Commonwealth Government's 2020 Renewable Energy Target in that it places a liability on a set of energy consumers, which in turn creates a subsidy for a nascent industry and demand pull through. (Jemena strongly advocates for this scheme to be expanded to include biomethane, which would help immediately decarbonise large parts of the natural gas supply chain).</p> <p>As it currently stands, the NSW Government consultation paper on the NSW RFS stipulates that producers of hydrogen are likely to receive a subsidy of ~\$3/kg. With the addition of a Commonwealth Government \$2/kg HPTI, projects will likely become commercial with tangible customers (e.g. pipeline blending) in the immediate-term. This will lead to not only an increase in commercial viability of projects, but wider decarbonisation across sectors (i.e. heavy industry, textiles, food manufacturing etc), helping achieve the Government's legislated emissions reduction targets.</p>