



17 December 2024

Submission to the Senate Economics Legislation Committee

Future Made in Australia (Production Tax Credits and Other Measures) Bill 2024

Introduction – Solarig Group’s plans for Green Hydrogen production for domestic decarbonisation in Australia and for export

[Solarig Group](#) is a Spanish renewable energy and clean fuels development company with operations in 14 countries, employing 1,500 professionals, with a development pipeline in excess of 20GW, and more than 20GW of renewable energy production and energy storage facilities under management.

In Australia, the Group’s subsidiary Solarig Development Australia Pty Limited is developing a network of green hydrogen production and distribution projects – in Queensland, New South Wales, Victoria and South Australia. These projects are intended to provide green hydrogen for industrial decarbonisation and for green chemicals and fuels domestically. Two projects are intended to scale for export of green hydrogen.

I am writing to express Solarig’s strong support for the *Future Made in Australia (Production Tax Credits and Other Measures) Bill 2024*, particularly the provision for a AUD\$2 per kilogram tax credit for the production of clean or green hydrogen. This measure is a critical step towards scaling up Australia’s green hydrogen industry, which is essential for our transition to a sustainable and low-carbon economy.

The Importance of Green Hydrogen

Green hydrogen, produced using renewable energy sources, is a key component in the global effort to reduce carbon emissions and combat climate change. It offers a versatile and clean energy solution that can be used across various sectors, including transportation, industry, and power generation.

Australia has an opportunity to consolidate and expand our position as the most significant supplier of energy exports to North Asia as our key trading and strategic partners Japan, South Korea, Taiwan and Singapore accelerate their decarbonisation investments, while at the same time strengthening Australia’s domestic fuel security and decarbonisation.

By investing in green hydrogen, Australia can position itself as a leader in the emerging global hydrogen economy, and domestically create a competitive advantage as a low-carbon producer of exports in multiple sectors – minerals, agriculture, food and beverage and chemicals, as well as energy.

17 December 2024

Submission to the Senate Economics Legislation Committee

Future Made in Australia (Production Tax Credits and Other Measures) Bill 2024

2

Is green hydrogen cost competitive?

Without market reform that factors carbon costs into both fuel production (supply) and consumption (demand) markets, currently it is a reality that energy markets still favour fossil fuels.

Natural gas, petroleum and diesel have significant advantages of scale, incumbent market power, and existing subsidies (such as the Diesel Fuel Rebate) against which a new entrant – green hydrogen – cannot compete. One reason for this is the continuing absence, in Australia and in Japan, Korea and other export markets, of any effective price on carbon emissions.

For this reason, as markets continue to transition to low-carbon energy, green hydrogen requires targeted support for scale-up of production and for growth in demand. Hydrogen production, storage, transmission and shipping technologies are all available today, but do not exist yet at a scale that can compete with incumbent oil and gas.

The *Future Made in Australia (Production Tax Credits and Other Measures) Bill 2024* in itself does not resolve the imbalances which continue to advantage incumbent fossil fuels and disadvantage clean fuels; but what it does critically do is to:

- close the gap between the price of fossil fuel alternatives and green hydrogen, and
- establish the foundations of clean hydrogen production and trade that form the platform for scale-up and cost reduction.

By effectively reducing the production cost of green hydrogen, at this critical stage of market development, the Production Tax Credit closes the gap that energy buyers must justify in order to commit purchasing a proportion of energy needs in the form of clean fuel, rather than simply continuing to purchase all energy as carbon intensive fossil fuels.

Once a buying pattern is established, buyers will gain confidence in supply chains, infrastructure such as hydrogen-ready gas turbines that use clean hydrogen will be deployed in increasing numbers, scale of consumption will grow, and cost of clean hydrogen will fall.

Is natural gas an alternative “low-carbon” transition fuel?

No. Natural gas – methane – is a carbon-intensive fuel, in its production and in its consumption.

Evidence continues to grow that the full measure of methane emissions from natural gas production may be significantly higher than previously thought due to methane escape from wells, storage basins and during transmission; even without taking account of these “fugitive” emissions, natural gas consumption directly produces CO₂ emissions.

Natural gas will continue to be a core part of Australian and international energy systems for many years to come, but this is not the same as being a substitute for new, zero-carbon fuels that will be needed at industrial scale in order for the world to achieve emission reduction targets.

Heavy transport, shipping, agricultural production, aviation, chemicals, cement, steel, fertilizers and explosives are all sectors which in which emissions are “hard to abate” by electrification.

17 December 2024

Submission to the Senate Economics Legislation Committee

Future Made in Australia (Production Tax Credits and Other Measures) Bill 2024

3

Unlike the electricity generation sector, in which renewable energy is already delivering emissions reductions, these sectors need a pathway to genuine zero-carbon fuel.

As 2024 draws to a close, globally there is increasing pressure from shareholders, investment and communities for these industries to demonstrate real plans for decarbonisation; plans that provide a meaningful pathway for decarbonisation beyond merely reducing emissions by switching from coal to natural gas.

This transitional plan can include the “blending” of clean hydrogen with natural gas, leveraging existing gas transmission and distribution infrastructure at the same time as reducing overall emissions intensity of gas use.

In short, green hydrogen will not displace natural gas, but will provide the vital complementary service of enabling many industries which cannot electrify efficiently to partially decarbonise in the near term, and some – over time – to move to full decarbonisation. In order for this service to be provided, at the moment a production tax credit is needed to reduce cost.

Economic and Environmental Benefits

1. Job Creation and Economic Growth:

- The development of a robust green hydrogen industry in Australia will create thousands of jobs across the supply chain, from research and development to production and distribution.
- This will stimulate economic growth, particularly in regional areas where renewable energy resources are abundant.
- More importantly, it will reduce Australian reliance on imported liquid fuels, effectively “onshoring” an increasingly large part of Australia’s fuel supply chains, improving Australia’s balance of payments by keeping more investment and more fuel expenditure within the Australian economy.

2. Energy Security:

- Green hydrogen can enhance Australia’s energy security by diversifying our energy mix and reducing dependence on imported fossil fuels – especially diesel. Australia is significantly exposed to global diesel supply chain disruptions, because our local refining capacity is small and declining, and our industries, agriculture, transport and defence are all highly reliant on imported diesel.
- Establishing a strong, internationally competitive green hydrogen industry in Australia will make our energy system more resilient to global market fluctuations and geopolitical risks.

3. Environmental Impact:

- By first integrating green hydrogen into the natural gas supply system, and then increasingly establishing 100% green hydrogen supply and consumption chains, we can significantly reduce greenhouse gas emissions and air pollution.

17 December 2024

Submission to the Senate Economics Legislation Committee

Future Made in Australia (Production Tax Credits and Other Measures) Bill 2024

4

- This will help Australia meet its international climate commitments and improve public health outcomes.
- Although good progress has been made in the electricity sector to reduced harmful pollution and carbon emissions, the same progress is not being made in other sectors; green hydrogen provides the pathway to progressive reduction in particulates that pollute our cities' air, as well as the carbon that heats our atmosphere and makes our climate more volatile.

The Role of the Production Tax Credit

The proposed AUD\$2 per kilogram tax credit is a crucial incentive for accelerating the scale-up of green hydrogen production in Australia. Here are the key reasons why this measure is essential:

1. Cost Competitiveness:

- The tax credit will help bridge the cost gap between green hydrogen and conventional fossil fuels, making green hydrogen more competitive in the market.
- This is vital for attracting investment and encouraging the adoption of green hydrogen in energy and fuel supply chains.
- As production volumes and consumption grow, costs will reduce, in turn strengthening demand – a virtuous cycle.

2. Market Development:

- A key impediment currently to penetration of green hydrogen in energy supply chains, is the weak level of demand.
- While commentators frequently point to direct production costs of clean hydrogen as the reason for weak demand, this weakness is arguably even more a function of the absence of effective carbon pricing, which makes the cost of hydrogen appear high relative to natural gas and diesel.
- By lowering production costs, the tax credit will stimulate demand for green hydrogen, fostering the development of both domestic and export markets.
- This will create a positive feedback loop, driving further investment, scale deployment and innovation and delivering cost reductions along with decarbonisation benefits.

3. Global Leadership:

- With the tax credit in place, Australia can establish itself as a global leader in green hydrogen production and export.
- This will open up new economic opportunities and strengthen our trade relationships with countries seeking to decarbonize their economies.
- This is particularly so in relation to Japan and South Korea, both energy-intensive economies that have few options for industrial-scale decarbonisation within their own borders.
- The opportunity to build on Australia's trusted energy supplier credentials with Japan, Korea and other Asian trade partners – in the low-carbon global economy – is there today to be realised.



17 December 2024

Submission to the Senate Economics Legislation Committee

Future Made in Australia (Production Tax Credits and Other Measures) Bill 2024

5

- The Production Tax Credit is a key measure for Australia to realise this opportunity.

Conclusion

In conclusion, the AUD\$2 per kilogram tax credit for green hydrogen production is a critical measure to support the scale-up of Australia's green hydrogen industry. It will drive economic growth, enhance energy security, and contribute to Australia's environmental sustainability goals and competitiveness in low-carbon trade that is an increasingly urgent priority in global markets.

Solarig urges the Senate Economics Legislation Committee to recommend and support the passage of the *Future Made in Australia (Production Tax Credits and Other Measures) Bill 2024* as a high priority of the Parliament.

Thank you for considering this submission.

Sincerely,



Andrew Want

Country Manager

Solarig Development Australia

M: 