

HSP Submission on the Hydrogen Production Tax Incentive Consultation Paper

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Global context for clean hydrogen

The importance of both renewable and low-carbon hydrogen and derivatives in meeting global energy needs and decarbonising industries was recognised by Australia and the other participants at the 28th Conference of the Parties (COP28) in December 2023.¹ This global acknowledgment is reflected by the ambitions and actions of many nations to support low-carbon hydrogen projects that, regardless of technological pathway, have the potential to displace more carbon-intensive forms of energy and chemical feedstocks. For example, the US, Canada, Japan and Korea have established support frameworks with definitions of clean hydrogen that use carbon intensities of between 3.4kg-CO₂e/kg-H₂ and 4.0kg-CO₂e/kg-H₂ and which therefore accommodate hydrogen produced with the support of carbon capture and storage (CCS).

The HSP Project and its proponents

Given the need for clean hydrogen, J-Power and Sumitomo Corporation have come together to form the Hydrogen Supply Party and develop the Latrobe Valley Clean Hydrogen Project (the **Project**) as part of the first, world-class clean hydrogen production from Latrobe Valley brown coal.

The Project builds on the success of the Hydrogen Energy Supply Chain (HESC) Pilot Project. The Project will interface with a broader supply chain of related projects and activities in Australia, including:

- Utilising coal as a feedstock from AGL's Loy Yang mine site
- Carbon storage facilities in the Bass Strait that will store the captured carbon, being led by Esso and CarbonNet
- A hydrogen export facility at the Port of Hastings, being developed by Japan Suiso Energy (JSE), a joint venture partnership led by Kawasaki Heavy Industries.

This Project and its broader supply chain is a substantial undertaking from committed proponents, with \$500 million spent in the development of the successful pilot scale project, and billions more earmarked for the development of the commercial scale project. The Japanese government has committed \$2.1 billion in funding towards the export supply chain being developed by JSE.

About J-Power and Sumitomo Corporation

J-Power is a major Japanese energy company with a total owned capacity of over 26GW, including a significant portion from renewable sources, and involvement in 375 projects across 64 countries, reflecting its diverse and expansive operations in the energy sector. J-Power is actively expanding its clean energy initiatives in Australia through efforts such as the recent bid offer for acquisition of Genex Power and collaboration on renewable projects like pumped hydro storage and wind with battery systems.

Sumitomo Corporation is a global trading and investment business, valued at over \$25 billion as of 2023, it operates in 66 countries with a diverse portfolio, particularly strong in mineral resources, energy, and infrastructure. Sumitomo has ambitions to increase renewable energy supply in Japan to 3GW by 2030 and is also actively engaging in hydrogen and other next-generation energy projects. In Australia, Sumitomo demonstrates robust capabilities and significant size in the energy sector with stakes in both natural gas and coal-fired power stations, progressive renewable energy initiatives including the acquisition of Infinite Energy Holdings, substantial interests in coal, copper, and gold mining ventures, and is leading into next-generation energy projects including a partnership on a green hydrogen production plant set to commence in 2026.

The regional benefits of the Project

The Victorian Government has committed to achieve 95% renewable electricity generation by 2035, which will result in the closure of coal-fired power stations. It is widely acknowledged that a just transition is required to ensure that the economic impacts of the energy transition are not disproportionately felt by impacted communities like the Latrobe Valley, which may face a difficult and costly transition.

At an Australian Government level, the Net Zero Economy Authority (NZEa) has been established to coordinate the investment needed for Australia's positive and orderly transformation to a net zero economy. The NZEA recognises that regions where coal-fired power stations are scheduled to close, investment is needed to develop new industries that provides jobs now and in the future. The NZEA has identified the Latrobe Valley as one of its key focus areas

¹ <https://www.cop28.com/en/cop28-uae-declaration-on-hydrogen-and-derivatives>

where investment is necessary to ensure that the risks for this transition are mitigated and new opportunities are realised.²

The Project will unlock significant benefits for regional Victoria. In particular, it will generate employment in the Latrobe Valley by providing large scale job opportunities for those affected by the closure of coal-powered plants and mines and spurred by this, including training, know-how transfer, investment and a cooperative approach to constructing low emissions technology. An emerging clean hydrogen industry also has the potential to generate spill-over benefits in the form of know-how and workforce skills as businesses and individuals involved in the Project's construction and operational activities invariably take up opportunities in other parts of the economy.

HSP's economic analysis indicates that the next stage of the project (with a planned production of 44ktpa of hydrogen) has the potential to provide over \$7 billion in GDP benefits to Australia and provide an average increase of 865 full-time-equivalent jobs per year in Victoria. Further benefits are expected as the project expands to its full production scale of 340ktpa of hydrogen. Many of these economic and employment benefits will flow to the Latrobe Valley at exactly the time it is transitioning away from carbon intensive coal-fired electricity production, reducing the potential burden on governments to support these communities through the energy transition.

The Project will also support the sustainable development of a region heavily impacted by the energy transition, utilise Victoria's comparative hydrogen-advantage in its low-cost economic resource that would otherwise be stranded and anchor Victoria's hydrogen and carbon capture and storage sectors. As well as providing regional benefits that will flow to Australia, the Project also supports the decarbonisation of a strategic partner and major trading partner of Australia, Japan, who is actively seeking to import clean hydrogen.

New regional industries

The full commercialisation of the Project will provide a much-needed investment injection into the Latrobe Valley and regional Victoria, presenting an opportunity to establish a range of new industries to perform hydrogen production. A clean hydrogen industry in the Latrobe Valley would repurpose otherwise stranded Victorian coal and utilise renewable biomass resources and capture emissions to produce low emission hydrogen products. The Project also enables hydrogen-adjacent markets such as carbon capture and storage, and other new industry made in Australia production industries, which will bring about a range of other benefits.

Carbon Capture and Storage

Clean hydrogen extracted from coal with CCS is Victoria's most promising, early and large-scale source of hydrogen, as it would utilise Victoria's resource competitive advantage; capitalising on the region's lowest cost and most abundant stranded resource. The development of a CCS industry will provide a critical enabler for a range of other industries and users to decarbonise. CCS outside of clean hydrogen production could also play a critical role in cement manufacturing, chemicals, gas production and storage, and other industrial manufacturing processes.

Derivatives industries

As the hydrogen sector matures, there is an opportunity to convert clean hydrogen into essential commodities such as ammonia, urea and methanol. Establishment of a hydrogen derivatives industry could bolster Australia's economy and help increase the competitiveness of Australia's agricultural, metals and industrial sectors, which aligns strongly with the 'Future Made in Australia' policy framework and its objectives.

The role of clean hydrogen in the energy transition

The Project's many unique attributes allow it to stand out from other potential hydrogen projects and pathways, including its comparatively low electricity use, its advanced development progress and clear development path, a viable pathway to market and access to skilled local labour and supply chains. The carbon emissions from brown coal are significantly reduced by the application of CCS and will be further mitigated over time to achieve the target of net zero by 2045 in line with Victoria's policy goals, including through the potential production of carbon-neutral hydrogen by biomass blending. Further, the Project helps Australia and Victoria simultaneously achieve both the large-scale production of hydrogen and the renewable energy targets, given the relatively low electricity use of the Project.

By establishing a clean hydrogen industry, Australia and Victoria can progress toward producing very-low carbon hydrogen by demonstrating the market, domestic and export supply chains and establishing the foundational infrastructure for clean hydrogen that can be utilised by renewable hydrogen in the future.

² <https://www.pmc.gov.au/news/investing-net-zero-economy>

The need for technology neutral or ‘colour agnostic’ support

HSP notes that the HPTI is intended to support renewable hydrogen production with very low carbon intensity thresholds that would preclude the Project from being eligible. However, implementing technology neutral support mechanisms for clean hydrogen can play a critical role in fostering the development of renewable hydrogen sectors. By not favouring one technology pathway over another, these policies ensure a fair and competitive market where the most efficient and sustainable solutions can emerge. This inclusive approach encourages innovation and attracts a broader range of investments in various clean hydrogen production methods.

When establishing a cut-off threshold for carbon dioxide equivalent emissions, it is essential to consider the broader impact on emerging hydrogen industries, including those focused on producing clean hydrogen. Limiting the eligibility of the HPTI to renewable hydrogen will marginalise these nascent industries, which offer numerous benefits to Australia including job creation, technological advancements, skill transfer in emissions intensive industries, and a significant reduction in overall greenhouse gas emissions. Clean hydrogen industries are pivotal for transitioning to a sustainable, long-term hydrogen economy and HSP wishes to highlight the potentially detrimental impact of the exclusionary eligibility criteria in the HPTI especially for projects in vulnerable regions that do not have renewable energy advantages such as the Latrobe Valley.

While HSP is supportive of government support for the hydrogen sector, HSP considers that by supporting only renewable hydrogen, the HPTI misses an opportunity to support large scale clean hydrogen that has been recognised by nations around the globe as being a crucial step in global decarbonisation.

HSP is of the view that the government should consider the needs of major hydrogen customers – which focus on carbon intensity rather than whether a project is produced by renewable energy – and avoid inadvertently disadvantaging Australia’s regional communities with emissions intensive industries as they transition to net-zero economies.

Adopting a ‘colour-agnostic’ or technology neutral approach to the provision of government support will reduce the risk that international clean-hydrogen projects with access to more flexible government support are progressed instead of Australian green hydrogen projects.

Given these observations, HSP requests Treasury consider how other support mechanisms can be developed or utilised that provide the flexibility required to foster innovation and growth across the full suite of clean energy solutions in particular projects that assist the Commonwealth achieve broader regional transition objectives.

HSP looks forward to working with the Australian Government to progress the Project and is committed to its long-term success.