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Energy Policy WA
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CC: by email to Ron Sao, Chief of Staff to Hon Bill Johnston MLA

Renewable Hydrogen Target

The Australian Energy Council (the “**AEC**”) is writing in relation to the proposed Renewable Hydrogen Target.

The AEC is the peak industry body for electricity and downstream natural gas businesses operating in the competitive wholesale and retail energy markets. Our members collectively generate the overwhelming majority of electricity in Australia, sell gas and electricity to millions of homes and businesses, and are major investors in renewable energy generation. The AEC supports reaching net-zero by 2050 as well as a 55 percent emissions reduction target by 2035, and is part of the Australian Climate Roundtable promoting climate ambition.

The AEC appreciates Energy Policy WA meeting with us on 15 June 2022 and providing a briefing on the Renewable Hydrogen Target being proposed by the State Government. It is understood that the Renewable Hydrogen Target would require retailers in the South West Interconnected System (SWIS) to procure electricity fueled by renewable hydrogen to stimulate local demand and support emerging hydrogen projects.¹ The presentation from Energy Policy WA indicated that the final design of the Renewable Hydrogen Target would be provided to the WA Renewable Hydrogen Ministerial Taskforce in November 2022 and the final design submitted to Cabinet in December 2022.

Justification for supporting hydrogen sector

The AEC is concerned that the Renewable Hydrogen Target is being progressed at pace without consideration given to whether it provides a benefit to consumers or market participants. The AEC considers that there needs to be reasonable justification for pursuing the Renewable Hydrogen Target, and a feasibility study completed, before work commences on detail design and it is submitted to Cabinet.

As part of assessing the merits of a Renewable Hydrogen Target, a number of important questions need to be considered, including:

- What is the cost benefit of a Renewable Hydrogen Target? The cost benefit analysis should include costs to consumers, supply chain costs, costs of storing and transporting hydrogen, costs for augmenting existing generators, and costs for market participants.

¹ See [Renewable hydrogen target to be investigated for Western Australia](#)

- If hydrogen is “not currently financially viable”² and the State Government does not favour financial incentives to attract investment³, why should the electricity sector, and ultimately end users, be required to support the development of the hydrogen sector by buying certificates?
- Why is hydrogen being chosen to receive a subsidy over other emerging and required technologies, such as dispatchable long duration battery storage, which are required to support the energy transition and are not commercial with current revenue streams in the Wholesale Electricity Market (“WEM”)?

Market participants have widely supported the Energy Transformation Strategy (“ETS”) and incurred costs and used substantial resources to implement the reforms. In this context, proper consideration should be given to the appropriateness of the electricity sector now being required to support the development of another sector and whether it is sensible for market participants to switch focus away from implementing the WEM reforms and being ready for the new market, to instead address the considerable challenges that the Renewable Hydrogen Target brings.

The AEC encourages Energy Policy WA to undertake a thorough review of the merits of a Renewable Hydrogen Target and assess if there is sufficient cost benefit to warrant it being progressed further.

Mechanism for supporting hydrogen

On the basis that a Renewable Hydrogen Target can be justified, the mechanism for supporting the sector needs to be carefully designed to avoid unintended consequences and market distortions.

The AEC considers that signals to encourage the entry of new technology into the SWIS should be done through the market mechanisms in the WEM (including the Reserve Capacity Mechanism (“RCM”), Essential System Service (“ESS”) markets and the energy markets) instead of via subsidies from other sectors that are passed through as costs to consumers. Marsden Jacobs Associates (“MJA”) considered the market mechanisms in a report commissioned by the AEC on revenue adequacy for generators in the WEM. MJA found that there was ‘missing money’ for many generation types and long duration battery storage, which are required for reliability, are not economic because the ESR Obligation Duration, the Capacity Price formula and the linear derating method does not provide an economic return for storage facilities exceeding 4 hours. One of the recommendations from MJA is to introduce a capacity price targeting flexible and dispatchable generation.

To incentivise flexible, dispatchable projects to enter the market and to make them viable, a specific capacity price category could be introduced in the WEM. This technology neutral approach would allow the market to send the ‘right’ signals to investors when this type of generation is required. It would encourage the most appropriate mix for the WEM as a whole and avoid distortions in the market caused from other sectors only subsidising the entry of hydrogen projects.

Other concerns

If Energy Policy WA progresses with designing a Renewable Hydrogen Target, there are a range of outstanding issues and implementation challenges that need to be addressed. Some of these include:

- Costs – There has been little focus on rising costs for consumers as part of the ETS process. Cost pressures will continue with Western Power’s AA5 proposal increasing costs, and AEMO’s AR6 final determination raising WEM fees by 85 per cent. The Economic Regulation Authority noted that “the pass-through of these increases will be particularly acute, given current cost of living pressures experienced by consumers.”⁴ In light of this, the AEC suggests that it is not appropriate for these

² See [WA forges ahead with renewables transition as other states face energy crisis](#)

³ See [Mines Minister Bill Johnston cautious of State Government role in battery production](#)

⁴ See pviii, [Australian Energy Market Operator’s allowable revenue and forecast capital expenditure proposal for the period 1 July 2022 to 30 June 2025 – Final determination](#)

same consumers to ultimately wear the cost of subsidising a hydrogen industry that is not financially viable.

- Consumers subsidising projects that don't benefit them – Consumers will not receive any benefit from the Renewable Hydrogen Target but will ultimately wear the cost of subsidising the hydrogen sector. There is also a real risk that through the Renewable Hydrogen Target, consumers will subsidise hydrogen projects that do not benefit them and are instead developed for other purposes, such as producing hydrogen for export. If consumers wear the cost of this program, then Energy Policy WA should ensure that the hydrogen projects are designed to support consumer needs and not projects that are created for a different purpose.
- Coordination with JTSI and stakeholders – It is understood that JTSI is progressing a hydrogen blending target and they will give a presentation to Ministers by early July 2022. Some members of the AEC were consulted about this blending target, however the AEC and other members were not contacted for input. The design of the Renewable Hydrogen Target and the hydrogen blending target appear to be conducted independently and with different timeliness. There is also inconsistency in the proposed settings with the Renewable Hydrogen Target considering blending by volume whereas the hydrogen blending target is being progressed on the basis of blending by energy content. The AEC encourages Energy Policy WA and JTSI to coordinate these significant programs and allow sufficient time to get input from all stakeholders.
- Timeline – The AEC considers that the timeline proposed for designing and implementing the Renewable Hydrogen Target to be ambitious. Submitting a final design of the Renewable Hydrogen Target to Cabinet by the end of the year does not allow enough time for appropriate consultation or adequate consideration by Energy Policy WA. It also likely means that market participants will have to divert valuable internal resources away from focusing on market readiness and the new WEM rules and procedures to instead deal with the considerable challenges that the Renewable Hydrogen Target will bring. Beyond that, implementing the Renewable Hydrogen Target and having renewable projects operational to provide hydrogen to retailers by the end of 2024 is not likely to be feasible with the current lengthy timeframes to develop projects and the existing transmission limitations.
- Existing contracts – It is likely that some retailers have already contracted their wholesale energy. The AEC encourages Energy Policy WA to consider what happens with the surplus that occurs when additional, excess energy is procured from renewable hydrogen projects and the refund mechanism for retailers.
- Tenure of the Renewable Hydrogen Target – The AEC suggests that the hydrogen sector should not be indefinitely subsidised and the Renewable Hydrogen Target should have a clear end point. Energy Policy WA should consider how long a Renewable Hydrogen Target is required and what will trigger the end of the program.

Conclusion

The AEC appreciates this opportunity to provide feedback on the Renewable Hydrogen Target and encourages Energy Policy WA to consider the issues raised above.

Please do not hesitate to contact Graham Pearson, Western Australia Policy Manager by email on graham.pearson@energycouncil.com.au or by telephone on 0466 631 776 should you wish to discuss this further.

Yours sincerely,

Graham Pearson
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Australian Energy Council