

10 November 2022

Energy Policy WA
Locked Bag 11
Cloisters Square, WA 6850
Sent by email to: EPWA-info@dmirs.wa.gov.au

Dear Sir or Madam

Renewable Hydrogen Target for electricity generation in the South West Interconnected System

Change Energy welcomes the opportunity to comment on the Renewable Hydrogen Target for electricity generation in the South West Interconnected System. We understand Energy Policy WA is considering this initiative to stimulate local demand for hydrogen and develop the Western Australian hydrogen industry.

Change Energy supplies electricity to over 300 customers in the SWIS. We are part of the Solargain family of companies. Solargain has been in operation for over 20 years, and has installed over 72,000 solar photovoltaic (PV) systems across Australia. Almost half of these were installed in Western Australia over the last decade.

Change Energy is a strong advocate for the decarbonisation of energy in the state. We support opportunities to move towards net zero carbon emissions where they make sense in a technology neutral way.

Hydrogen is not yet commercial

Although (renewable) hydrogen has been at the forefront of decarbonisation discussions around the world, we note this is not a new technology. Hydrogen provides an alternative to batteries for storing intermittent energy until it is required, and therefore is likely to play an important part of our fuel mix at some point in the future. Currently, hydrogen does not appear to stack up as a commercial proposition. This is because:

- as a gas alternative for electricity production, hydrogen is still expected to be three-times more expensive, even with the inclusion of cost efficiencies that would be achieved from a 10 per cent target¹; and
- as an alternative source of storage, current hydrogen storage technology remains less cost effective than batteries at least until 2050 according to the CSIRO's GenCost Report².

While Change Energy understands why the State Government may want to stimulate local demand for, and therefore development of the hydrogen industry in WA, the current evidence does not show that there will be anything close to a net benefit for the state.

We are not suggesting that hydrogen will never become commercial, and we advocate continued independent development of renewable hydrogen as a generating technology. However, we consider the commercial maturity

¹ As provided for in Table 3 of the Consultation Paper.

² Available at: <https://publications.csiro.au/publications/publication/Plcsi:EP2022-2576/SQgencost%20report/RP1/RS25/RORECENT/STsearch-by-keyword/LISEA/RI2/RT8>

of renewable hydrogen should occur organically, driven by traditional market forces, and not via an arbitrary state-imposed target.

The cost will fall on those who can least afford it

Change Energy is concerned that the costs of pursuing the uncommercial proposition of hydrogen as a generation fuel source will fall on electricity retailers (of which we are one) and their customers. Moreover, it will add significant costs to customers who are already struggling with rising utility bills.

We are currently in an economic environment where the cost of living is a concern for much of our population. To compound this, energy costs are on the rise³. A tripling of any portion of a consumer's electricity bill is likely to be significant. Those who do not have the means to reduce their energy costs through efficiency measures and installing behind the meter renewable resources are going to bear the cost of this target. Those customers who are able to afford to reduce their energy served from the SWIS will reduce their network usage, thereby pushing a higher proportion of network costs onto those who are unable to.

We note that non-contestable customers are expected to be protected from this price increase at least in the near term due to the Government mandated price caps. However, this will be a cost borne by Synergy and underwritten by taxpayers

It should also be highlighted the increase in costs associated with any requirement to purchase energy at inflated prices is detrimental to small retailers. While the direct costs can often be passed on to end users, there are significant costs of operations intrinsically linked to the wholesale cost of electricity. The primary cost is the amount of prudential security held by AEMO which covers each retailer's exposure in the WEM.

It is unclear how the market will 'be made'

While the idea of a renewable hydrogen target is credible, implementing of such a scheme is difficult. An obligation on retailers to meet electricity requirements with a certain percentage of hydrogen can work in theory. However, with a non-commercial product, in a highly subsidised and largely artificial market, there are considerable risks.

Change Energy is concerned there is an increasing risk with generation scale, and that only a few, or a potentially a single producer may dominate the market, with the potential for monopoly pricing.

It is not clear how the proposed target will be implemented in a way that encourages competition. Before a renewable hydrogen target is progressed further, careful consideration must be given on how a mandate to purchase an uncommercial product can be positioned as being in the best interests of those being obliged to purchase it, or the consumers who will ultimately be paying for it.

Potential alternative options

Change Energy supports State Government initiatives like those being progressed at Oakajee. We consider it in merit in supporting the development of green hydrogen production technology and production projects over the coming years. However, we consider support on a merits basis is preferential to an arbitrary reallocation of energy costs between energy resources and sector of the supply chain to be unacceptable.

Change Energy considers as with any other technology, the costs of green hydrogen will become commercial and competitive with natural gas and battery storage over time. At that point, the introduction of hydrogen in the fuel mix in the SWIS will be more sustainable, equitable, and in the long-term interests of consumers.

³ For example, the Economic Regulation Authority's recent [Draft Decision](#) on the Western Power Network sees ~8 per cent per annum increases over the next five years. Network costs make up almost half a customer's bill. In addition, [AEMO's data dashboard for the WEM](#) shows wholesale electricity prices over the last month frequently double that of two years ago.

Thank you for the opportunity to comment on the Renewable Hydrogen Target for electricity generation in the SWIS.

If you have any questions, or would like to arrange a meeting to discuss any aspect of this submission, please contact me on 0401 903 210 or at Geoff.Gaston@changeenergy.com.au.

Your Sincerely,

A handwritten signature in black ink, appearing to read 'G. Gaston', written in a cursive style.

Geoff Gaston
Chief Executive Officer

