

10 January 2020

Hon Guy Barnett MP
Minister for Primary Industries and Water
Minister for Energy
Minister for Resources
Minister for Veterans' Affairs
Level 5, 4 Salamanca Place
HOBART TASMANIA 7000

Tasmanian Renewable Hydrogen Action Plan

Dear Minister,

UPC\AC Renewables Australia ("UPC") is an Australian entity, established in early 2017, that is headquartered in Tasmania. We have a development portfolio of several GWs of renewable energy within the National Electricity Market. UPC is part of the global UPC Renewables Group that was established in the early 1990s. The UPC Renewables Group has developed, owned and operated over 4500MW of large scale wind and solar farms in 10 countries across Europe, North America and Australia-Asia, with an investment value of over \$5Billion USD. We have always been a pioneering renewable energy developer, developing the first commercial wind farms in Italy and Indonesia as an example. Our mission is to meet our world's growing energy needs with clean electricity and improve the lives of local people and communities. As a developer, owner and operator, UPC is vested in the community for the long term.

UPC is actively considering a role in the emerging renewable hydrogen opportunity, as an equity investor, but also as a supplier of renewable energy to a hydrogen production facility. In the case of

the latter, we have already provided a letter of support to the Northern Tasmania Development Corporation outlining this opportunity, particularly around the Bell Bay area. We also have committed \$60,000 to the University of Tasmania to support their push to establish an Australian Research Council Industrial Transformation Trading Centre for hydrogen research.

We agree with the premise outlined in the draft Action Plan, that Tasmania is ideally placed to develop renewable hydrogen given its abundance of firm renewable electricity, water supply and good deep-water port locations; all critical to a successful development of renewable hydrogen. We have outlined below some actions which would facilitate a hydrogen industry.

Offtake Agreements

One of the keys to unlocking the long term hydrogen opportunity in Tasmania is to tap into cheap renewable energy. This can be achieved through securing long term (20 years +) offtake agreements for renewable energy projects with bankable entities. Offtake agreements with credit worthy counterparties (i.e. Tasmanian Government and its businesses) can deliver higher gearing levels (i.e. potential up to 80 percent) which leads to a lower cost of financing projects and hence lower overall energy costs¹. UPC's Tasmanian portfolio could help achieve this, either through the development of the current Robbins Island and Jim's Plain Renewable Energy Parks, or our future North-East wind farm projects. In the case of the North-East wind farm projects, these could connect directly back to George Town/Bell Bay for use in a hydrogen plant. UPC is keen to explore a hydrogen plant development and would welcome the Government's consideration of releasing suitable Crown land at Bell Bay.

Co-funding

The biggest challenge for developing renewable hydrogen at present is developing a commercial business case. While a long term renewable energy offtake can assist this, co-funding future developments would also be beneficial. The Government could also leverage Commonwealth funding through ARENA for future developments. This funding support would enable the gap between a commercial proposition and what can be delivered at this time to be addressed, which would help underwrite the start of a renewable hydrogen economy in Tasmania.

Establishment of Export Partner

The commercialisation of renewable hydrogen production would be enhanced by the establishment of an credible export/transport partner (Action 2), whether that be to Japan and/or South Korea. UPC believes this is one of the largest issues to be resolved, but with the credibility of the Tasmanian

¹ The Federal Government Underwriting New Generation Investment (UNGI) scheme is a good example as is a long term offtake with Hydro Tasmania.

Government supporting this opportunity, suitable partners could be attracted. We note this is an action for the Coordinator General/Department of State Growth (Action 2) and we suggest this is prioritised to ensure a route to international markets is established.

Competitive Electricity Prices

Negotiating between Hydro Tasmania, TasNetworks and other energy suppliers for a competitive delivered electricity price is at present disjointed which can detract from further investment in Tasmania. We suggest that the Government work with Hydro Tasmania and TasNetworks to establish a delivered price for electricity at set locations in the system that will assist in supporting a hydrogen production facility (expansion of Action 6). The price would need to be maintained for the long term (i.e. 20+ years) to support the viability of a hydrogen plant in an environment where lowering production costs could see an early developed and high cost plant unprofitable in the short to medium term. This may also include running a renewable energy purchase tender to help develop new low cost renewable generation projects to supplement the Hydro Tasmania system to support hydrogen production. This may have the added benefit of supporting new jobs and activity in developing renewables as well as a hydrogen facility.

Hydrogen Use in Tasmania

While we agree with the Government's goal for Tasmania to become a significant exporter of hydrogen, we also see value in ensuring Tasmania maximises its use the hydrogen. While Tasmania is uniquely placed in comparison to most other developed economies, by having near net zero carbon emissions already, we see there is value in exploring the use of hydrogen to further reduce carbon emissions in the heavy vehicle, industrial processes and agricultural sectors. In addition, hydrogen can also help improve Tasmania's fuel security by playing a larger role in the transport sector and reducing the need for importing fossil based liquid fuels. Hence any actions the Government takes should consider the promotion of the downstream uses of hydrogen in these sectors. UPC agrees with Action 7 by allocating funds to promote hydrogen use in the heavy vehicle sector (i.e. bus fleets, truck fleets, garbage trucks, etc) particularly in areas such as Launceston, Burnie and Hobart where centralised refueling sites can be established to service a large number of heavy vehicles using hydrogen.

Hydrogen/Gas Supply

UPC supports Action 9, injecting hydrogen in the gas networks to assist in reducing carbon emissions from industrial and residential gas use. Although UPC considers the State should attempt to trial hydrogen/gas blends higher than the 10 percent. UPC understands this is possible and that production of hydrogen close to the gas network, like at George Town, could be advantageous.

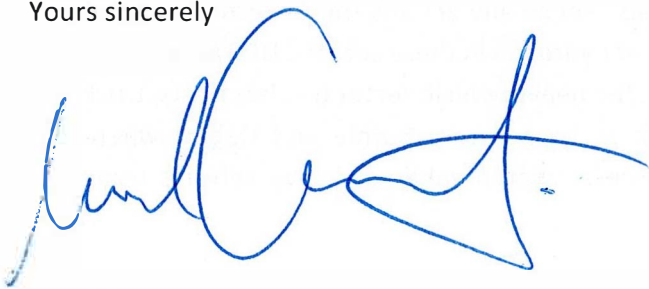
Hydrogen Trial Plant

While in the short term developing the hydrogen opportunity may not be commercial without government action, the work to facilitate these actions will start the transition of the economy to be ready to produce and use hydrogen in the future. UPC considers this is the role of government and that potentially this may include supporting a demonstration or trial plant to help deliver some of the actions outlined in the Action Plan. Such a concept would align to Action 18 and a set of comprehensive measures to support the hydrogen opportunity. Such a trial could then look to produce hydrogen for the local opportunities, as well as for export. This may include hydrogen production for methanol, hydrogen for ammonia (export or agriculture - Action 12) and hydrogen for local use (transport, gas replacement – Action 7). If production was also supported by local capability development (i.e. hydrogen truck/buses/garbage trucks) then the hydrogen supply chain can be tested and supported. This could be a good opportunity to involve local councils looking to reduce their carbon footprints.

The Government could also look at implementing a request for proposal process to attract private sector entities to develop the trial/demonstration hydrogen plant. Such a process could meet the Government's requirements while also ensuring competitive tension to minimise government funding. We believe the current interest in this opportunity is likely to attract significant interest from hydrogen plant developers.

Thank you for the opportunity to respond to the draft Tasmanian Renewable Hydrogen Action Plan and we look forward to continuing to work with the Government to advance the renewable hydrogen potential for Tasmania. If we can assist further please don't hesitate to contact me for further assistance or discussions.

Yours sincerely



Dr Michael Connarty

Manager, Strategy and Stakeholder Engagement