

Global Hydrogen Energy Summit 2020, Melbourne

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Keynote Address

Hon Minister Guy Barnett MP, Minister for Energy

Tasmanian Renewable Hydrogen Action Plan

- Over the past 100 years, Tasmania has built its economy on our world-class renewable energy, which has provided cost competitive, reliable clean power.
- This sustained investment in renewable energy infrastructure and technology has attracted energy intensive jobs rich major industry and placed Tasmania as a leader in renewable energy supply, knowledge and expertise.
- In a carbon-constrained world and in response to climate change, Tasmania is now leading, growing our economy and creating more jobs.
- Tasmania is Australia's leading renewable energy state, and is on track to be self-sufficient in renewables by 2022, making it the first state in Australia with 100 per cent renewable power generation.
- The Clean Energy Council has noted that there are a number of countries leading the charge on renewable energy, with some countries like Costa Rica producing 95 per cent of its electricity from hydro, geothermal, solar and wind.
- Other countries like Norway and Iceland are also leaders in renewable energy.
- If Tasmania was a country we would be in the top 3 in the world.
- In 2018 – Tasmania reached 95.9 per cent renewable – which is impressive.
- Tasmania is already punching above its weight in generating low cost, reliable, clean energy for the nation, producing nearly a quarter of Australia's renewable energy, while consuming just 2 per cent of the nation's energy.
- And with Tasmania representing just 1 per cent of Australia's land mass yet around 12 per cent of Australia's rain water and 25 per cent of Australia's water in storage. Tasmania is brilliantly placed to leverage our hydro generating potential and to maximise the wise use of water, for example, to grow our agricultural production.
- The Tasmanian Government is continuing to build upon its achievements to ensure that renewable energy remains a key economic driver in Tasmania's future.

- We are currently developing the Tasmanian Renewable Energy Plan which sets out clear objectives and actions to transform Tasmania into a national and global Renewable Energy Powerhouse.
- We recognise that the global supply and use of energy is dramatically shifting as countries are now looking to cleaner, renewable forms of energy in order to decarbonise their economies.
- Hydrogen is the internet of energy. Renewable hydrogen is the internet of energy on steroids.
- Emerging demand for renewable hydrogen presents a significant opportunity for Tasmania to develop a hydrogen industry powered by Tasmanian renewable energy, creating more jobs, further growing our economy and positioning us as a global leader in renewable energy supply.
- The Tasmanian Government is actively working to ensure we are well positioned to capitalise on this new global industry, in recognition that Tasmania's strengths make it an ideal location for the development of renewable hydrogen projects.
- I released the Tasmanian draft Renewable Hydrogen Action Plan in November last year, which articulates the Government's vision and a suite of actions to use Tasmania's existing and expandable renewable energy, and water resources, to become a leader in large-scale renewable hydrogen production.
- Our Plan will benefit investors through access to low cost hydrogen production, and will benefit Tasmanians through job creation and economic growth, particularly in regional areas.
- Importantly, our Plan complements the National Hydrogen Strategy which was released by COAG Energy Council Minister's at our recent meeting in November 2019.
- I strongly support the National Strategy, and congratulate Dr Alan Finkel for leading its development.
- The National Strategy will raise Australia's profile and potential as a key player in an emerging global hydrogen industry.
- We are working hard to finalise our Action Plan, including reviewing a large number of submissions received from a range of stakeholders, and I am looking forward to releasing the final Action Plan in March of this year.

- Our Plan highlights Tasmania as highly prospective for renewable hydrogen production, due to strong renewable resources, access to existing infrastructure, and access to water.
- The firming capability of Tasmania's Government-owned hydro power, combined with our world-class wind resource, provides us with a key advantage in being able to produce renewable hydrogen at low cost, unlike regions with access to only variable renewable energy.
- Analysis indicates that the cost of renewable hydrogen production in Tasmania could be 10 to 15 per cent lower than from other Australian power grids, and 20 to 30 per cent lower than from dedicated off-grid variable renewables.
- Tasmania also has high quality industrial precincts, including the Bell Bay Advanced Manufacturing Zone, with access to deep-water ports, strong transmission infrastructure, significant water availability and road and rail infrastructure to enable renewable hydrogen production, straight from our electricity grid.
- Tasmania's other key advantages include access to a highly skilled and innovative workforce, supporting Tasmania's renewable energy and major industries, and world-class educational and research institutions including the Blue Economy Cooperative Research Centre.
- The Australian and Tasmanian Government is working collaboratively together with industry through the \$329 million Blue Economy CRC - Australia's largest-ever Cooperative Research Centre, which is based in northern Tasmania
- The Blue Economy CRC brings together expertise in aquaculture, marine renewable energy and offshore engineering, with renewable hydrogen production and it's potential use a key focus area.
- Its exciting to imagine the potential – hydrogen fuelled marine vessels, complimenting innovative renewable energy offshore developments.
- The Tasmanian Government is focussed on facilitating and growing Tasmanian industries through supportive policy and effective regulatory frameworks and is currently working to improve planning approval pathways for industry development.
- The comparatively small geographic size of Tasmania (relative to mainland Australia) means hydrogen infrastructure investment can be minimised while reaching the majority of the population.

- For example, a relatively small number of hydrogen refuelling stations would be required as part of an initial roll-out to support hydrogen transport.
- Tasmania also has a relatively new natural gas distribution network which has the potential to carry relatively high proportions of hydrogen gas blended with natural gas, without the network suffering potential pipe embrittlement and leakage issues that can occur with older gas distribution networks made from steel.
- Importantly, the Action Plan establishes a series of key actions and clear goals to kick start a hydrogen industry in Tasmania.
- By 2022 our goal is to have commenced both production and use of renewable hydrogen in Tasmania.
- We are exploring the significant opportunities for local use of renewable hydrogen in Tasmania across a range of end-use sectors including in transport, fuel substitution in gas networks, industrial applications and for remote power supplies (such as the Bass Strait Islands).
- By 2030 we have a goal to be a significant global supplier of renewable hydrogen for export and for domestic use. With future wind resource expansion and pumped-hydro development Tasmania could be capable of large scale renewable hydrogen production in the long-term.
- In fact, our government's vision is for a Tasmanian renewable hydrogen industry over the next decade that could support a 1,000 megawatt production plant creating over 1,200 regional jobs and supporting a further 2,000 megawatts of renewable energy investment.
- Tasmania's prospectivity for cost-effective large-scale, renewably produced hydrogen production has been recognised by potential investors from countries including Japan, South Korea and China.
- The Tasmanian Government has been working with a range of interested proponents and has hosted a number of national and international delegations to Tasmania in recent months to investigate the unique opportunity that Tasmania provides.
- Work on investment attraction to Tasmania is being led by the Tasmanian Office of the Coordinator General.

- In December last year, I launched the Tasmanian Renewable Hydrogen Prospectus at a very successful China trade mission in Beijing while it was simultaneously launched in Tasmania.
- We recognise that government support will be necessary to kick-start the emerging renewable hydrogen industry and we are establishing a comprehensive package of measures, including a Tasmanian Renewable Hydrogen Fund, to support the development of a renewable hydrogen industry in the State.
- The Government is committed to establishing a viable large-scale renewable hydrogen industry in Tasmania, that will provide significant economic benefits for our State, and the level of support provided by Government will reflect this.
- Details on the Tasmanian Government's support measures will be provided with the final Tasmanian Renewable Hydrogen Action Plan expected to be released next month.
- Tasmania's Battery of the Nation initiative and additional Bass Strait interconnection (through Project Marinus) are projected to play a vital role in ensuring a reliable and affordable National Electricity Market as it transitions away from one dominated by coal generation to a more diverse supply mix with increasing levels of variable renewable generation.
- The Battery of the Nation initiative has identified up to 3,400 megawatts of pumped storage capacity that would more than double Tasmania's existing energy capacity (2,300 megawatts).
- Investigations into Project Marinus have identified that up to 1 500 megawatts of additional interconnection from Tasmania to Victoria across Bass Strait by the mid-2020s is technically feasible and commercially viable. This would unlock more low-cost, reliable and clean Tasmanian renewable energy for the benefit of the nation.
- For Tasmania alone – Marinus and the induced renewable energy investments will inject up to \$7.1 billion into the economy. This includes:
 - From the development, construction and operation of the Marinus project - \$1.4 billion direct and indirect economic injection and up to 1,400 direct and indirect jobs;
 - From the induced renewable energy developments up to \$5.7 billion injection into the economy and up to 2,350 direct and indirect jobs.

- For Victoria it would stimulate the local economy by \$1.5 billion and provide up to 1,400 direct and indirect jobs in peak construction.
- In short my vision is billions injected into the economy and thousands of jobs for Victoria and Tasmania.
- The development of a large-scale renewable hydrogen industry is complementary to Battery of the Nation and Project Marinus, reflecting the underlying strength of Tasmania's existing and expandable renewable energy resources.
- In addition to providing low-cost and reliable clean energy to support the National Electricity Market, the significant additional wind and pumped-hydro schemes identified through Battery of the Nation could support a gigawatt scale Tasmanian renewable hydrogen industry over the longer term.
- I am excited by the opportunity renewably produced hydrogen presents for a global transition to a lower carbon energy future, while also creating new jobs, benefiting local economies, and driving investment. Tasmania's renewable energy is our natural advantage and we intend to use it.
- With our world-class renewable energy, Tasmania is an ideal location to produce cost-competitive renewable hydrogen on a large-scale to meet this emerging export and domestic demand and become a global leader in renewable energy supply.
- I am convinced our best days are ahead of us and a new chapter of opportunity will present as we play our part in responding to climate change by growing our economy and creating more jobs.