TASMANIAN RENEWABLE HYDROGEN ACTION PLAN STATUS REPORT – FEBRUARY 2021

Action #	Action	Lead agency	Other Key agencies/ stakeholders	Proposed Timeframe	Status	Comments
Pillar 1 - Explore the opportunities for using locally produced renewable hydrogen in Tasmania and for export						
1.1	Investigate opportunities for the use of hydrogen transport technologies in the state, with an initial focus on 'return-to-base' transport activities, such as buses, fleet vehicles, freight (including road and rail) and marine applications (such as ferries or barges).	State Growth (support from the Tasmanian Climate Change Office)	Metro Tasmania DOTAF DSG	End June 2021		A preliminary investigation was undertaken prior to commencement of the recent Tasmanian Renewable Hydrogen Funding Program. A more detailed assessment will now be undertaken, with a draft investigation report expected to be completed by March 2021. As a part of the 2020-21 Budget, the Tasmanian Government has committed $2.3 million over three years, and set a target for its Government vehicle fleet to be 100 per cent electric by 2030. This target includes battery electric, plug-in hybrid, and hydrogen vehicles. The Tasmanian Government has also tasked Metro Tasmania to trial zero emissions buses in Tasmania (both in the south and north of Tasmania), to be undertaken within the next two years. This will be funded through the 2021-22 Tasmanian Budget.
1.2	Investigate optimised deployment and use of hydrogen refuelling infrastructure, with the intent of promoting open access where practical, to best facilitate industry development.	State Growth (support from the Tasmanian Climate Change Office)	DSG	End June 2021		This investigation will be aligned with existing work currently being undertaken by the Tasmanian Climate Change Office for electric vehicles. The data collected during the completion of Action 1.1 and Action 1.3 will be used to develop a hydrogen refuelling station rollout strategy. As a part of the 2020-21 Budget, the Tasmanian Government has committed $2.3 million over three years, and set a target for its Government vehicle fleet to be 100 per cent electric by 2030. This target includes battery electric, plug-in hybrid, and hydrogen vehicles. The Tasmanian Government has also tasked Metro Tasmania to trial zero emissions buses in Tasmania (both in the south and north of Tasmania), to be undertaken within the next two years. This will be funded through the 2021-22 Tasmanian Budget.
1.3	Explore opportunities to trial hydrogen fuel cell electric vehicles within government fleets to gain first-hand experience of the technology and act as a potential catalyst for broader uptake across the private sector.	DSG	DOTAF (TCCO)	End June 2021		A preliminary investigation was undertaken prior to commencement of the recent Tasmanian Renewable Hydrogen Industry Development Funding Program. A more detailed assessment will now be undertaken, with a draft investigation report expected to be completed by March 2021. As a part of the 2020-21 Budget, the Tasmanian Government has committed $2.3 million over three years, and set a target for its Government vehicle fleet to be 100 per cent electric by 2030. This target includes battery electric, plug-in hybrid, and hydrogen vehicles.
1.4	Work with the incumbent natural gas distribution network infrastructure owner to explore opportunities for hydrogen blending at 10 per cent and to investigate potential trials of higher hydrogen blends in Tasmania's hydrogen compatible gas distribution networks.	DSG	Department of Justice (Gas Safety) TasGas Enwave	End June 2022		A Review of the National Gas Law under NHS implementation has been commenced and is to be completed by 2020. Department of State Growth with the Department of Justice are working with the *Hydrogen in the gas networks* national work stream to progress this work. The Department of State Growth engaged with Enwave in the development of the Action Plan, and will re-commence discussions early in 2021. The Department of State Growth is also engaging with TasGas on this issue.
1.5	Hydro Tasmania will investigate the production and use of renewable hydrogen as a component of its hybrid energy systems on King and Flinders Island, and for incorporation into its hybrid energy solutions services.	Hydro Tasmania	DSG	November 2020		Hydro Tasmania has prepared a draft report outlining the opportunities for the use of hydrogen in its hybrid energy systems on King and Flinders Island. The report has identified that hydrogen at small scale on the islands is economically challenging, with negative operational returns even if initial capital outlay was fully funded. Entura are discussing the potential for hydrogen use in renewable micro-grids with clients.

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1.6	Work with Tasmania's Antarctic and energy business sectors to investigate the opportunity for hydrogen based renewable energy systems to provide power and fuel requirements in Antarctica.	DSG	Energy Businesses UTAS	End December 2021		State Growth is progressing discussions with the Australian Antarctic Division and the Davis Project Team to explore the opportunities for hydrogen use in Antarctica.
1.7	Investigate industrial applications of Tasmanian renewable hydrogen, including opportunities for the use of 'green' ammonia and related products, derived from renewable hydrogen, for use in the Tasmanian agricultural sector.	DSG	DPIPWE DPAC (TCCO)	End December 2021		A preliminary investigation was undertaken prior to commencement of the recent Tasmanian Renewable Hydrogen Industry Development Funding Program. A more detailed assessment will now be undertaken, with a draft investigation report expected to be completed by March 2021. Findings from the feasibility studies, that received funding support under our Funding Program, will also inform this work. Findings from these feasibility studies are anticipated before December 2021.
1.8	Investigate opportunities for export of renewable hydrogen from identified sites, including the Bell Bay Advanced Manufacturing Zone and in the north west coast region.	DSG	Energy Businesses, UTAS	Ongoing		The Department of State Growth and Office of the Coordinator-General will continue to work with key infrastructure providers and proponents to investigate the opportunities for hydrogen production and export. This includes participating in the National Hydrogen Infrastructure Assessment work, to be completed as a part of the National Hydrogen Strategy implementation. The Tasmanian Government will also support Tasmanian applicants to develop 'hydrogen hubs', as a part of the Australian Government's support for clean technologies under its Technology Investment Roadmap. An outline of how this funding will be provided is being sought from the National Hydrogen Project Team.

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Pillar 2 - Provide financial support for renewable hydrogen projects for export and domestic use, and continue investment attraction activities including with international trade partners						
2.1	Tasmania's Coordinator-General will continue its investment attraction and industry development work, including with prominent international proponents and consortia, to facilitate investment in renewable hydrogen production for export and domestic use.	Office of the Coordinator-General	DSG	Ongoing		The Office of the Coordinator-General is actively working with a range of proponents, including prominent international proponents and consortia, to facilitate investment in renewable hydrogen production for export and domestic use. Following the completion of the Tasmanian Renewable Hydrogen Industry Development Funding Program, the Office of the Coordinator-General is continuing to work with all successful proponents to advance their feasibility studies. The Tasmanian Renewable Hydrogen Prospectus released by the Office of the Coordinator-General in late 2019, continues to be a key part of the investment attraction and industry development work
2.2	Continue to foster international partnerships with governments and businesses in countries seeking to import renewable hydrogen, including Japan, South Korea and China, and to strengthen relationships through facilitating and attending trade delegations.	Office of the Coordinator-General	DSG	Ongoing		The Office of the Coordinator-General has actively worked to build relationships with government and businesses, within Australia and internationally. This work is ongoing. While COVID-19 restrictions prevented physical travel in 2020, the Office continues to assist and engage extensively with potential proponents via a range of digital and online platforms to market Tasmania's credentials and opportunities for green hydrogen.

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2.3	Industrial precincts in Tasmania, in particular the Bell Bay Advanced Manufacturing Zone and in the north west coast region, will continue to be promoted as prime hydrogen hub locations.	Office of the Coordinator-General	DSG	Ongoing		The Office of the Coordinator-General has, and continues to promote the Bell Bay Advanced Manufacturing Zone, and other industrial zones, as an ideal location for a hydrogen hub. This has included promotion of Bell Bay in the Office of the Coordinator-General's Renewable Hydrogen Prospectus, as well as holding delegations in the Zone. BBAMZ was successful in receiving $100 000 in seed funding through the NERA Regional Hydrogen Technology Cluster grant program.
2.4	Deliver a comprehensive $50 million package of renewable hydrogen support measures over 10 years through a competitive Expression of Interest (EOI) process, commencing in the second quarter of 2020.	DSG – Energy and Strategic Projects Team	Office of the Coordinator-General DOTAF Metro Tas	Stage 1 completed. Ongoing		The initial Funding Program has concluded, with support for four applicants announced on 17 November 2020. See here for further information. Once a detailed hydrogen demand study for Tasmania is completed, a future funding program will be designed. This demand study is expected to be completed by March 2021
2.5	Work collaboratively with supportive local governments and representative organisations to facilitate renewable hydrogen development.	DSG	Office of the Coordinator-General LGAT	Ongoing		The Tasmanian Government is working with local government and representative bodies to develop a Tasmanian renewable hydrogen industry. State Growth is developing a Tasmanian Renewable Hydrogen Industry Network as a forum for knowledge sharing and collaboration between industry and government. The first forum will be held during Q2 2021.

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Pillar 3 - Ensure a robust and supportive regulatory framework and assess supporting infrastructure						
3.1	Continue progressing *the Land Use Planning and Approvals Amendment (Major Projects) Bill 2018*. The Bill will amend the *Land Use Planning and Approvals Act 1993* to introduce a new single assessment process for major projects.	DOJ – Planning Policy Unit	DSG	September 2020		Completed. The Bill has passed through both houses of Parliament on 24 September 2020, and received Royal Assent on 13 October 2020.
3.2	Review state-based legislation and regulations that are relevant to the hydrogen industry, particularly in regard to safety, and participate in national regulatory review and reform processes implemented under the National Hydrogen Strategy.	DSG	Department of Justice (Gas Safety) Energy Businesses OTTER	Nov 2021		State Growth is coordinating the review of legislation with other Tasmanian Government agencies as it relates to hydrogen. It is currently undertaking scoping work on this review, and is expecting advice from a national review of energy legislation. State Growth has engaged with other Australian jurisdictions in relation to their hydrogen regulatory review work programs, to work collaboratively where possible.
3.3	Work collaboratively with other governments and industry to facilitate the development of a renewable hydrogen certification scheme that recognises and values Tasmania's renewable energy characteristics and sustainable water resources.	DSG	DPAC (TCCO) Hydro Tasmania	Ongoing		Work is underway nationally to develop a national certification scheme for hydrogen. As a part of this work, Hydro Tasmania is working with the Clean Energy Regulator on a proof-of-concept approach to verify that renewable electricity produced in Tasmania will provide certainty to investors that Tasmanian renewable electricity is traceable and verifiable. The Department of State Growth is engaging with this process to ensure that it aligns with Tasmania's strategic interests. The Department of State Growth has committed funding and in-kind support towards a UTAS submission for an Australian Research Council linkage grant. The project will

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						investigate a best practice approach for hydrogen certification at the national and international levels, that also seeks to advance Tasmanian interests. The outcome of the funding submission will be known in mid-2021.
3.4	Work collaboratively with national infrastructure assessments carried out under the National Hydrogen Strategy.	DSG	TBC	End June 2022		Funding has been secured by the National Hydrogen Project Team to carry out national infrastructure assessments, and work will begin early 2021.
3.5	Work with local infrastructure providers to assess infrastructure requirements associated with renewable hydrogen developments. This will include working with TasNetworks to assess the network requirements at identified sites including the Bell Bay Advanced Manufacturing Zone, and exploring options for minimising network costs. Water requirements will be assessed in consultation with TasWater and TasIrrigation. Port requirements for export will be assessed in consultation with TasPorts.	Office of Coordinator General DSG (Broader Issues)	TasWater TasIrrigation TasPorts	End June 2021		The Department of State Growth and the Office of the Coordinator-General have, and continue to work with local infrastructure providers to assess infrastructure requirements for renewable hydrogen developments and to identify appropriate infrastructure projects to support industry growth. Assessing infrastructure requirements will also occur through a national assessment, expected to begin in 2021. Successful proponents for the Tasmanian Renewable Hydrogen Industry Development Funding Program will likely undertake similar infrastructure work as a part of their feasibility analysis.
3.6	Establish a dedicated Renewable Hydrogen Development Unit within the Department of State Growth to support implementation of the Tasmanian Renewable Hydrogen Action Plan, and support Tasmania's contribution to implementation of the National Hydrogen Strategy.	DSG	TBC	Budget Day 2020		The Department of State Growth has been allocated funding in the 2020-21 Budget to provide the necessary staffing and project support necessary to implement the TRHAP. The focus over the coming months will be finalising recruitment of additional resources to implement the TRHAP and support the implementation of the National Hydrogen Strategy.

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Pillar 4 - Build community and industry awareness, develop skills, and support research and education						
4.1	Ensure nationally developed community education and awareness raising materials and programs related to hydrogen are relevant for, and made available to, the Tasmanian community.	DSG	Hydro Tasmania	June 2022		Tasmania is leading the implementation of the community education and engagement Action Items under the National Hydrogen Strategy (Action Items 5.1 and 5.2). The agreed approach and funding was agreed to by other Australian jurisdictions in December 2021. A working group is being established to guide the process, with involvement from other jurisdictions, and a consultant will be engaged to carry out phase 1 of this work by the end of the 2020/21 financial year.
4.2	Facilitate the delivery of community education and awareness raising sessions related to renewable hydrogen.	DSG	Hydro Tasmania	June 2022 End 2020 (initial)		A plan for Tasmanian community education and engagement has been developed, and as an outcome of the 2020-21 Tasmanian Budget, State Growth has commenced work to recruit the necessary personnel to implement this plan. Tasmanian education and engagement will leverage the work being undertaken by State Growth to implement the community education and engagement work under the National Hydrogen Strategy.
4.3	Continue to facilitate industry stakeholder engagement, including through the delivery of an industry workshop in 2020 to advance the Tasmanian Renewable Hydrogen Action Plan.	DSG	Hydro Tasmania	Ongoing		Industry stakeholder engagement is ongoing. The impact of COVID-19 in Tasmania, as well as the delivery of the Tasmanian Renewable Hydrogen Industry Development Funding Program (for probity issues), impacted upon the delivery of industry workshops throughout much of 2020.

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						State Growth is establishing a Tasmanian Renewable Hydrogen Industry Network as a forum for industry and government to share information, collaborate, and help inform advice to government to implement the TRHAP and develop a Tasmanian hydrogen industry. The first meeting of the Network is expected in Q1 2021.
4.4	Facilitate the implementation of the Australian Government funded $17 million 'Energising Tasmania' initiative, to provide training in major energy development related priority skills needs areas such as engineering, project management, civil construction and trades.	DSG - Skills Tasmania	DSG	Under implementation		State Growth is implementing the Energising Tasmania initiative. A main component of this is the Energising Tasmania Training Fund, which provides fully subsidised training places to deliver nationally recognised qualifications to workers in areas of priority skills, needed to support energy developments in Tasmania. The Fund is now open, and will close 2:00pm on 30 June 2021. See here for further information. The first iterations of two new funding programs which reflect key outputs of the Project Agreement for Energising Tasmania were released in October 2020 and have now closed. The Energy and Infrastructure Training Market Development Fund intends to support registered training organisations to increase training capacity and undertake other projects that respond to the needs of Tasmania's energy (and related) sectors. The first iteration of the Fund closed on 5 February 2021 and successful applicants will be advised in March 2021. See here for further information. The Energy and Infrastructure Workforce Development Fund aims to support eligible organisations undertake projects and activities that are responsive to the workforce needs of Tasmania's energy (and related) sectors. The Fund closed in December 2020. Five applicants were successful in being allocated funding to deliver projects which respond to the key objectives of the Fund. Two of which have a specific focus on enhancing training and workforce capability relative to the Tasmanian hydrogen sector. For a summary of all five projects, including those with a hydrogen focus, please see here. The Tasmanian Energy and Infrastructure Workforce Advisory Committee (TEIWAC) was established in June 2020. Consisting of key education, training and industry stakeholders, TEIWAC provides advice to Government on the implementation of the Energising Tasmania commitment and broader renewable energy sector pertinent to training and workforce development. For further information regarding Energising Tasmania, please see here.
4.5	The Blue Economy CRC, in collaboration with Government, will investigate: ○ the use of hydrogen as a shipping fuel to support offshore aquaculture operations ○ the use of hydrogen based renewable power systems to support offshore aquaculture operations ○ opportunities to add value to hydrogen production by electrolysis by utilising the oxygen co-product in Tasmania's aquaculture industry	Blue Economy CRC	DSG	January - June 2021		The Blue Economy CRC is progressing a number of research and development projects with its partners involving the development of hydrogen micro grid, storage solutions and control systems for offshore environments. Summaries of this research can be found at: https://blueeconomycrc.com.au/research/offshore-renewable-energy-systems/ The Department of State Growth is a participant in the Blue Economy CRC, and is providing support to the Blue Economy CRC, as requested. The Blue Economy CRC is investigating: ○ Offshore renewable energy system technologies for offshore, off grid applications;

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						○ The development of a hydrogen micro grid to support offshore applications, including aquaculture operations as a potential market; and ○ Opportunities to add value to hydrogen production by electrolysis by utilising the oxygen co-product in the aquaculture industry.
4.6	Support the University of Tasmania's ARC Industrial Transformation Training Centre funding application through a $100 000 cash and in-kind contribution to support renewable hydrogen research.	University of Tasmania	DSG TasNetworks	Ongoing		The University of Tasmania was unsuccessful in its application to this program. However, State Growth is supporting another research funding opportunity with UTAS, outlined against Action 3.3 above.