APA submission

Tasmania's Climate Change Action Plan 2023-25

April 2023

Australian Pipeline Limited ACN 091 344 704
Level 25, 580 George Street, Sydney NSW 2000
PO Box R41, Royal Exchange NSW 1225
P: +61 2 9693 0000 | F: +61 2 9693 0093
APA Group | apa.com.au

Anton Voss
Chief Executive Officer
Department of State Growth
Tasmanian Government

Lodged via email: climatechange@recfit.tas.gov.au

6 April 2023

RE: APA Submission to Tasmania's Draft Climate Change Action Plan

Dear Mr Voss,

Thank you for this opportunity to provide feedback on the draft Tasmania Climate Change Action Plan 2023-25 (the Action Plan). We welcome the opportunity to contribute to the Department's consultation on the Tasmanian Government's climate change actions for the next two years.

APA is an ASX listed owner, operator, and developer of energy infrastructure assets across Australia. As well as an extensive network of natural gas pipelines, we own or have interests in gas storage and generation facilities, electricity transmission networks, and over 593 MW of renewable generation infrastructure, including 88 MW under construction.

We support the development of the Action Plan and the transition to a lower carbon future. In August 2022, we published our inaugural Climate Transition Plan which outlines our commitments to support Australia's energy transition and pathway to net zero operations emissions by 2050. Most recently, we completed the acquisition of Basslink Pty Ltd, which owns and operates the 370km high voltage direct current electricity interconnector between Victoria and Tasmania.

Energy Ministers and market bodies have recently acknowledged that gas will be an important component of the energy mix for years to come. As recognised by the Draft Tasmanian Future Gas Strategy, transitioning away from gas before there are suitable alternative fuels will have an adverse impact on Tasmania's economy and employment, while doing little to reduce greenhouse gas emissions. We support this balanced, pragmatic policy approach to help drive Tasmania's energy transition.

If you wish to discuss our submission in further detail, please contact John Skinner on 02 9693 0009 or john.skinner2@apa.com.au.

Regards,

Beth Griggs
General Manager Economic Regulation and External Policy

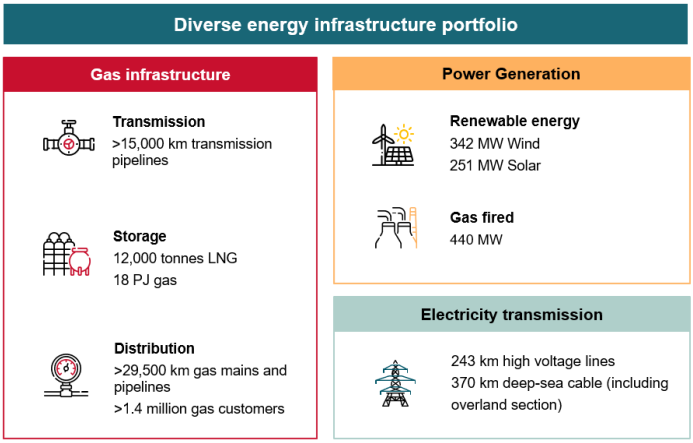
1 Executive Summary

Key Points

- APA supports policy initiatives which help drive Tasmania and Australia towards a lower carbon future.
- As recognised by the Tasmanian Draft Future Gas Strategy 2022, we support a balanced, pragmatic policy outlook for the future of gas.
- Helping key sectors access investment opportunities that result in long-term emissions reduction outcomes will support Tasmania's transition to a lower carbon future.
- We encourage the Tasmanian Government to consider projects which aim to repurpose existing gas infrastructure to transport future fuels as part of the key actions under Priority area 2.
- Pathways to increase renewable energy generation should be mapped out now so there is enough to meet Tasmania's Renewable Energy Target (TRET) and support development of the renewable hydrogen industry.

APA is a leading Australian Securities Exchange (ASX) listed energy infrastructure business. Consistent with our purpose to strengthen communities through responsible energy, our diverse portfolio of energy infrastructure delivers energy to customers in every state and territory on mainland Australia.

Our 15,000 kilometres of natural gas pipelines connect sources of supply and markets across mainland Australia. We operate and maintain networks connecting 1.4 million Australian homes and businesses to the benefits of natural gas. And we own or have interests in gas storage facilities, gas-fired power stations.



We also operate and have interests in 593 MW of renewable generation infrastructure, including 88 MW under construction, while our high voltage electricity transmission assets connect Victoria with South Australia, New South Wales with Queensland and Tasmania with Victoria.

Most recently, we completed the acquisition of Basslink Pty Ltd, which owns and operates the 370km high voltage direct current electricity interconnector between Victoria and Tasmania. The acquisition adds a third electricity interconnector to APA's energy infrastructure portfolio and is consistent with our strategy to play a leading role in the energy transition.

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As a longstanding owner and operator of natural gas pipeline, we are committed to efforts which decarbonise the gas sector and strive towards a lower carbon future.

APA supports the development of the Action Plan. We recognise that the Action Plan supports Tasmania's legislated net zero emissions targets from 2030 – one of the most ambitious legislated emissions reduction targets in the world.[1] In August 2022, we published our own inaugural Climate Transition Plan which outlines our commitments to support Australia's energy transition and pathway to achieve net zero operations emissions by 2050.

While we appreciate that the Action Plan's two-year timeframe reflects its focus on immediate priorities, we are of the view that it could encompass more forward-looking pathways to a lower carbon future. Out of the three priority areas proposed, *Priority area 2 – Transition and innovation* should be given more focus. Supporting key sectors to decarbonise and implement measures/projects to reduce emissions will be an important component of meeting Tasmania's net zero targets.

Gas is an important contributor to the Tasmanian economy. Three quarters of the gas consumed in Tasmania is done so by 16 large industrial users, who contribute significantly to employment and Tasmania's Gross State Product. There is a material risk to the continued operation of these businesses if gas becomes unaffordable or unavailable, which will in turn impact employment, Tasmania's economy and communities. We therefore support policy developments which maintain a pragmatic outlook for gas' role in Australia's energy mix, and also encourage growth in the future fuels industry.

As highlighted in the Tasmanian Future Gas Strategy paper, pragmatic timeframes for the energy transition will be important for an orderly transition:[2]

> *Acting to transition away from gas before suitable alternative fuels become widely available would therefore have an adverse impact on Tasmania's economy and employment, while doing little to reduce greenhouse gas emissions.*

While we support the development of the hydrogen industry in Tasmania, we also recognise the careful balancing act required for the State to achieve its TRET by 2040. Pathways to increase renewable electricity generation should be mapped out now so there is enough to meet Tasmania's TRETs and develop other renewable industries like hydrogen. A robust and reliable local market for renewables will likely provide significant benefits for future export opportunities.

[1] Tasmanian Government, *Tasmania's Draft Climate Change Action Plan 2023-25* (March 2023) 4.
[2] Tasmanian Government, *Draft Tasmanian Future Gas Strategy* (October 2022) 15.

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2 Submission

2.1 APA supports Tasmania's Climate Change Action Plan and a lower carbon future

APA supports policy developments which help drive Tasmania and Australia towards a lower carbon future. We recognise that the Action Plan supports Tasmania's legislated net zero emissions targets from 2030 – one of the most ambitious legislated emissions reduction targets in the world.[3]

Governments across Australia have set net zero targets and gas infrastructure will play a key role in the decarbonisation of the economy. Businesses like APA wish to invest in energy projects that support this transition to net zero and our target is to achieve net zero operations emissions by 2050. Through our Pathfinder Program, we are investigating how hydrogen and other technologies such as batteries and microgrids, can support a lower carbon future.

APA has recently acquired Basslink which will have an important role in helping Tasmania meet its TRET. The TRET aims to increase the state's renewable electricity generation by 200 percent by 2040, with an interim target of 150 percent by 2030.

In August 2022, we published our own inaugural Climate Transition Plan which outlines our commitments to support Australia's energy transition and pathway to achieve net zero operations emissions by 2050.

2.1.1 Supporting Tasmania's net zero ambitions and energy security through Basslink

APA's acquisition of Basslink is consistent with our strategy to increase our electricity transmission footprint and play a leading role in the energy transition. Basslink is a 400kV DC electricity interconnector that allows the transfer of electricity between Tasmania and the National Electricity Market.

Basslink will play an important role for Tasmania in meeting its TRET and supporting Tasmania's energy security long into the future. Basslink can:

- protect Tasmania against the risk of energy shortages
- enable Tasmania to buy renewable energy from the mainland (especially when mainland renewables are cheaper)
- transport secure renewable energy to Victoria and southern states during peak demand periods
- promote the development of additional renewable generation in Tasmania by providing a path to market for that new energy
- potentially support the development of the Australian offshore wind industry via sub-sea electricity cables.

[3] Tasmanian Government, *Tasmania's Draft Climate Change Action Plan 2023-25* (March 2023) 4.

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2.1.2 Support to repurpose existing gas infrastructure for future fuels

We encourage the Tasmanian Government to consider projects which aim to repurpose existing gas infrastructure to transport future fuels as part of their key actions under Priority area 2.[4] We are of the view that such projects can support businesses and industry to innovate by integrating traditional, new and emerging knowledge to support the energy transition.[5]

Energy Ministers have recognised that gas will play a crucial role in the energy transition, and that the continuing use or repurposing of gas infrastructure could therefore be important for both gas and electricity users.[6]

Gas infrastructure has an essential role to play in helping Australia achieve least cost gas decarbonisation. Repurposing natural gas pipelines to transport hydrogen as energy is considered to have significant advantages:

- Converting existing gas networks is more cost-efficient in comparison to constructing new, dedicated hydrogen pipelines.[7]
- Gas pipeline networks are already available and socially accepted (routes, including rights of way and use). [8]
- Technologies for converting the natural gas infrastructure to hydrogen operation are already being applied.

Regardless of which renewable gas proves most effective, renewable gas providers can utilise pre-existing gas infrastructure like distribution networks, pipelines, metering equipment, and human expertise.

This is acknowledged in Tasmania's Draft Future Gas Strategy:

> "While it is uncertain which renewable gas, or mix of gases, will prove most effective in Tasmania, it is likely that renewable gas providers will be able to utilise much of the pre-existing gas infrastructure like distribution networks, pipelines, metering equipment, and even human expertise.*[9]

The Oakley Greenwood report commissioned by the Tasmanian Government also supports this approach, stating:

[4] Tasmanian Government, *Tasmania's Draft Climate Change Action Plan 2023-25* (March 2023) 21.
[5] Ibid.
[6] Energy Ministers, *Incorporating an emissions reduction objective into the national energy objectives* (Consultation Paper, 20 December 2022) 8.
[7] Ibid, Amber Grid et al, *European Hydrogen Backbone* (Report, April 2022) <https://ehb.eu/files/downloads/ehb-report-220428-17h00-interactive-1.pdf>.
[8] European Union Agency for the Cooperation of Energy Regulators, *Transporting Pure Hydrogen by Repurposing Existing Gas Infrastructure: Overview of existing studies and reflections on the conditions for repurposing* (16 July 2021) 6.
[9] Tasmanian Government, *Draft Tasmanian Future Gas Strategy* (October 2022) 15.

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"The macro-factors appear supportive of re-purposing the existing gas distribution (and potentially gas transmission) networks in Tasmania to facilitate the distribution of renewable gases – over time."[10]

Frontier Economics has also investigated the potential for gas infrastructure to decarbonise the economy. In its September 2020 report, Frontier concluded that making continued use of existing gas assets wherever possible, including for the transport of hydrogen or biogas, can help avoid the material costs of investing in new assets to deliver energy.[11]

The main reason Frontier came to this conclusion was due to the significant cost of the electrification pathway, particularly for industrial energy load. It was recognised that gaseous fuels are essential as industrial feedstock and high heat applications, and if gaseous fuels are not available, the industries that rely on this fuel will not be viable.

The cost-effectiveness of pipeline infrastructure has also been considered in the Pipelines vs Powerlines: A Technoeconomic Analysis in the Australian Context report, produced by GPA Engineering and commissioned by the Australian Pipelines & Gas Association (APGA).[12]

The report indicates that hydrogen pipelines are likely to play a central role in Australia's net zero energy market. Hydrogen pipelines, for the purpose of energy transport and storage, were found to be up to four times more cost-competitive when compared to electricity transmission infrastructure, in the context of like distance and capacity scenarios.

The ability of pipelines to store large amounts of energy is another factor supporting the repurposing of gas pipelines. While gas pipelines are currently used for storing natural gas, it is likely that they will be repurposed and used as a hydrogen store in the years to come.

2.2 A balanced, pragmatic policy approach for the future of gas in Tasmania

Gas is an important contributor to the Tasmanian economy. Three quarters of the gas consumed in Tasmania is done so by 16 large industrial users, who contribute significantly to employment and Tasmania's Gross State Product. There is a material risk to the continued operation of these businesses if gas becomes unaffordable or unavailable, which will in turn impact employment, Tasmania's economy and communities.

Increasing energy prices in various jurisdictions around the world demonstrate the importance of an orderly energy transition that balances security, reliability and affordability. As highlighted

[10] Oakley Greenwood, *Tasmanian Gas Strategy: Background research, analysis and suggest next steps* (Report, October 2021) 16.
[11] Frontier Economics, *The Benefits of Gas Infrastructure to Decarbonise Australia,* (Report, 17 September 2020) 9 <https://www.energynetworks.com.au/resources/reports/2020-reports-and-publications/the-benefits-of-gas-infrastructure-to-decarbonise-australia-frontier-economics/#:~:text=1%20INTRODUCTION-,Frontier%20Economics%20has%20been%20engaged%20by%20Australian%20gas%20industry%20associations,gas%20infrastructure%20to%20decarbonise%20Australia.&text=Australia%20has%20committed%20to%20reducing,part%20of%20the%20Paris%20Agreement.>.
[12] Australian Pipelines & Gas Association, *Pipelines vs Powerlines: A Technoeconomic Analysis in the Australian Context* (Final Report, 24 August 2021).

in the Tasmanian Future Gas Strategy paper, pragmatic timeframes for the energy transition will be important for an orderly transition:

> *Acting to transition away from gas before suitable alternative fuels become widely available would therefore have an adverse impact on Tasmania's economy and employment, while doing little to reduce greenhouse gas emissions.* [13]

The 2022 Tasmanian Draft Future Gas Strategy paper recognised the important role gas will have in the energy transition, providing a balanced policy outlook for the future of gas. We supported this approach in our submission to Gas Strategy.[14]

The National Electricity Market is going through a period of fundamental change, with large volumes of variable renewable energy (VRE) displacing aging thermal generation, mostly coal power, at great speed. As the energy market transitions, continued investment in Gas-Powered Generation (GPG) is essential to ensure energy consumers receive reliable gas and electricity. Industries and customers are reliant on and continue to choose gas.

Given its importance to the security and reliability of the energy system, we must continue to invest in our gas system.

2.2.1 Gas is essential for energy security

In navigating the energy market transition, gas infrastructure has an essential role to play in helping Australia meet its net zero ambition targets. The transition Australia faces in displacing aging thermal generation with large volumes of renewable energy is not without its challenges.

Recent experience has demonstrated the role that gas plays in supporting renewables and providing a critical backup when large renewable generation and storage (e.g., batteries and pumped hydro) is not available. As the penetration of renewable energy sources increases, and aging coal power stations retire, GPG will be critical in meeting electricity demand and maintaining the security of the system. This role will become critical if there are delays in building the necessary transmission and storage which supports renewable energy projects.

Events in Queensland and Victoria over recent years have demonstrated the flexibility and security offered by gas pipelines:

- On 25 May 2021 a failure of one of the generation units at Callide Power Station in Queensland caused 477,000 customers to lose power.
- In mid-June 2021, Yallourn Power Station in Victoria reduced electricity generation to approximately 20% capacity due to the threat of floodwater from the Morwell River.

[13] Tasmanian Government, *Draft Tasmanian Future Gas Strategy* (October 2022) 15.
[14] APA, Submission to Tasmanian Government, *Draft Tasmanian Future Gas Strategy – Discussion Paper* (12 January 2023)

This was the second time Yallourn experienced a significant flooding event, with the Power Station shutting in 2012 when floodwaters entered the adjoining mine.

Following both these events, GPG stepped up to help provide crucial electricity generation in both Queensland and Victoria. GPG doubled its output while not increasing overall emissions. The ability of gas turbines to quickly ramp up and provide long term dispatchable generation shows they will be a critical part of the energy system for many years to come.

2.3 Encouraging investment in future fuels while balancing local and export opportunities

We support policy developments which encourage growth and investment in the future fuels industry in Tasmania and Australia more broadly. Helping industry access investment opportunities that result in positive, long-term emissions reduction outcomes will support Tasmania's transition to a lower carbon future.[15]

While we support the development of the hydrogen industry in Tasmania, we also recognise the careful balancing act required for the State to achieve its TRET by 2040. Overall, sufficient renewable energies should be available and developed to ensure:

- Tasmania's energy demand is met with reliable, affordable supply
- Pathways to increase renewable energy generation are diversely identified and activated to ensure Tasmania can meet its TRET
- Renewable energy generated is sufficient to support development of the renewable hydrogen industry and other innovations.

Pathways should be mapped out now so there is sufficient renewable energy generated to meet Tasmania's TRET and support development in the renewable hydrogen industry (and others). A robust and reliable local market for renewables will likely provide significant benefits for future export opportunities.

2.3.1 APA's growing expertise in hydrogen generation and renewable energy

Australia has some of the world's best natural resources for producing renewable energy. This is one of the key reasons why hydrogen has been identified as one of Australia's key comparative advantages and one of the logical options to help decarbonise the Australian economy and provide new export opportunities.[16]

APA is actively engaged in projects which support Australia's hydrogen economy. Through APA's Pathfinder Program, we continue to grow our experience and expertise in hydrogen generation, storage, transport and other clean fuel technologies which support a lower carbon future.

[15] Joint Standing Committee on Trade and Investment Growth, Inquiry into Australia's Transition to a Green Energy Superpower, 'Terms of Reference' 3.
[16] Australian Government, *Technology Investment Roadmap – First Low Emissions Technology Statement – 2020,* 18.

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Our first Pathfinder Program project is seeking to enable the conversion of around 43-kilometres of the Parmelia Gas Pipeline (PGP) in WA into Australia's first 100 per cent hydrogen-ready transmission pipeline.[17]

In Phase One of the PGP Conversion Project, the pipeline was assessed as suitable for 100 per cent hydrogen service without any requirement to reduce operating pressure of the pipeline. Phase Two testing, supported by a $300,000 grant under the Renewable Hydrogen Fund (WA), is nearing completion and involved testing the pipeline material in a gaseous hydrogen environment.

APA has also signed an MoU with AGL and other consortium partners to carry out an expanded green hydrogen feasibility study in the NSW Hunter Valley region.[18] The study will map key operational and commercial plans for the project which involves exploring the development of a renewables-based hydrogen production facility. The facility forms part of a 'Hunter Energy Hub' development, which will combine grid-scale batteries, solar thermal storage, wind and pumped hydro.

Once commercially viable, renewable hydrogen will likely become a key component of the renewable energy export market for Australia. To foster a future trade market for renewable energy, from the outset Australia needs to work closely with international trading partners. We can expect some of our closest renewable energy trading partners to be in Asian markets given many of these countries' strong investment to net zero commitments and Australia's geographic proximity to these nations.[19] Once commercially viable, renewable hydrogen will likely become a key component of the Australian renewable energy export market.

APA has had some successes in this space. In Queensland, APA joined a consortium of Australian and Japanese energy players to establish the State's largest green hydrogen project.[20] The consortium has completed a detailed feasibility study into the development of the green hydrogen project in Central Queensland. The feasibility study found that the project is technically feasible and commercially viable, subject to appropriate government support in the initial phases. Most recently, the consortium has started preparations for a Front-End Engineering Study to commence in early 2023.[21]

The Central Queensland hydrogen project proposes to export green hydrogen to Japan and supply large industrial customers in the Central Queensland region, thereby supporting

[17] APA, *APA set to unlock Australia's first hydrogen-ready transmission pipeline* (Media Release, 23 February 2021) <https://www.apa.com.au/news/media-statements/2021/apa-set-to-unlock-australias-first-hydrogen-ready-transmission-pipeline/>.
[18] AGL, *AGL and Fortescue Future Industries' green hydrogen feasibility study underway in the Hunter* (Media Release, 9 August 2022) <https://www.agl.com.au/about-agl/media-centre/asx-and-media-releases/2022/august/agl-and-fortescue-future-industries--green-hydrogen-feasibility->.
[19] Evidence to Joint Standing Committee on Trade and Investment Growth, Parliament of Australia, Canberra, 23 November 2022 7 (David Woods).
[20] APA, *APA Group joins international hydrogen consortium* (Media Release, 15 September 2021) <https://www.apa.com.au/globalassets/media-statements/2021/apa-group-joins-international-hydrogen-consortium.pdf>.
[21] Stanwell, *Queensland's green hydrogen aspirations another step closer* (Media Release, 14 December 2022) < https://www.stanwell.com/our-news/media/queenslands-green-hydrogen-aspirations-another-step-closer/>.

emissions reduction for the domestic industry. Commencing production in the mid-2020s, the project is expected to deliver over $17.2 billion in hydrogen exports and $12.4 billion to Queensland's gross domestic product over its 30-year lifespan.

2.3.2 Adding green value to domestic industries and customers

As well as working with international trading partners to create future offtake for renewable hydrogen, our Pathfinder team work closely with our industrial customers to support their decarbonisation journey. APA continues to help our industrial customers in manufacturing value added green products for domestic use and for exports in the future.

APA owns and operates 416km Parmelia Gas Pipeline that transports natural gas from Perth Basin gas fields near Dongara, the Carnarvon Basin and APA's Mondarra Gas Storage Facility to customers in the Perth Area and southwest of Western Australia. Kwinana Industrial Estate (KIA) is supplied via a 1.4km Kwinana Supply Lateral.

APA and Wesfarmers Chemicals, Energy and Fertilisers (WesCEF) have signed an MOU to undertake studies assessing the viability of green hydrogen production, transportation via southern section APA's PGP, and hydrogen offtake at WesCEF's ammonia production facility at KIA.

These studies highlight APA's commitment towards facilitating and supporting domestic industry decarbonisation at a large scale. Supply of green hydrogen to WesCEF's facilities in Kwinana will support production of green ammonia and other sustainable chemicals. The WesCEF sites deliver products for the domestic agricultural, mining, construction and manufacturing sectors, as well as energy for households for cooking, heating and hot water.

2.3.3 Removing barriers to transporting future fuels

Substantial investment is required in infrastructure that will produce, transport and consume future fuels. Investment should cover all aspects, including: research and development, testing, feasibility and commercial viability assessments, front-end trials, and incentives for grid implementation. For renewable hydrogen generation, investment is needed in the following:

- Pipelines
- Storage
- Hydrogen turbines
- Electrolysis
- Fuel cells.

To accelerate growth of the hydrogen and future fuels industries, policies need to also encourage national consistency and flexibility for future innovations. As part of the projects being considered for the energy sector under Priority area 2, we encourage government to proactively remove any regulatory barriers for future fuels, including renewable hydrogen.

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A regulatory framework which enables and fast-tracks 100 percent future fuel pipeline transport may also help key sectors and other industries on their emissions reduction journey. Maximising the potential to transport future fuels up to 100 percent in natural gas pipelines may result in more appetite for private investment in future fuels project. This is especially the case considering there currently is no substantive reward for the business' emissions reduction ambitions if there is a limit on future fuels blending. Some very large industrial customers are more focused on 100 percent future fuel usage and transport, rather than blends.

To encourage the growth of hydrogen and other future fuels industries, policies should aim to provide a consistent, balanced regulatory framework for natural gas and future fuels. National harmony across regulatory frameworks and jurisdictional collaboration will help reduce administrative costs and red tape for national energy businesses like APA.

To achieve this, a working group of the Commonwealth, State, Territory and industry representatives could be established to consider and progress harmonisation of future fuels and renewable gas regulations and the timing of their introduction. Such a working group could also work together to solve legal and regulatory issues that are likely to arise as hydrogen and future fuel projects are developed.


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