



22 January 2023

4C Energy Pty Ltd

ABN 92 659 913 756

4 Garth Avenue

Sandy Bay, Tas, 7005

## Re: Draft Tasmanian Future Gas Strategy

Via email: [gas.strategy@recfit.tas.gov.au](mailto:gas.strategy@recfit.tas.gov.au)

4C Energy appreciates the opportunity to provide feedback on the 'Draft Tasmanian Future Gas Strategy' (**Draft**). We believe that the case for a more assertive gas strategy has strengthened considerably in the time since the Draft was released and offer the following alternative/addition for consideration of inclusion.

### Context:

Firstly, there are two statements in the Draft that would benefit from clarification as they are critical to understanding the potential for accelerating the gas transition illustrated in the Draft<sup>1</sup>.

1. The Draft states "the commodity cost of renewable methane is likely to always be higher than hydrogen given that involves an additional process using additional energy"<sup>2</sup>. This seems to somewhat discount the viability of renewable methane, potentially prematurely given it could be a net-zero substitute for natural gas. The cost advantages of utilising existing infrastructure (especially storage) and appliances far outweigh the marginal cost of methanation.
2. The "TVPS continues to be available and operating on a commercial basis"<sup>3</sup>. The combined cycle gas turbine (CCGT) has not generated since May 2019 and Hydro Tasmania, according to its Annual Reports, suffers a material loss each year to retain the TVPS in an operational state. The reason Hydro Tasmania, and ultimately electricity, customers bear these costs is to ensure energy security is maintained should the State be exposed to multiple contingent events such as those that occurred in 2016<sup>4</sup>. This was the basis of the Tasmanian Government's 2021 election commitment to retain the TVPS for energy security purposes. An understandable and legitimate choice for a jurisdiction to take, given the catastrophic consequences of energy shortfalls.

---

<sup>1</sup> The Draft - Figure 4: Phases in the gas transition, p.7

<sup>2</sup> The Draft - Renewable methane, p.3

<sup>3</sup> The Draft - Gas powered electricity generation, p.5

<sup>4</sup> Basslink out of service for almost six months combined with low hydro storage and low inflow

A secondary benefit of retaining the TVPS in an operational state is that the associated gas transportation contract with the TGP keeps the gas pipeline commercially viable<sup>5</sup>. This ensures that the industrial and residential customers in Tasmania have continued access to natural gas for their various processes.

It is entirely conceivable that the TVPS CCGT will not be required for energy security in the future<sup>6</sup>, which may then be challenging for the Government to ensure remaining customers do not face unaffordable transmission costs while retaining access to the TGP<sup>7</sup>. Worst case scenario, it could fully strand the existing gas transmission and distribution assets.

### **Additional strategy:**

Renewable gases could prove to be a game-changer in Australia's push to reach net-zero by 2050 and Tasmania has all the attributes required to lead the development that can make that a reality.

- Tasmania is the only state in the National Electricity Market (**NEM**) that has the quantum of dispatchable renewable generation capacity or firming required to be able to reliably deliver 100% renewable energy. High capacity factors are critical to the economics of renewable gas production.
- The majority of the gas infrastructure required to access the 'emerging markets' for renewable gases is already established in Tasmania and currently under-utilised.
- The gas market in Tasmania is relatively small, which makes it ideal for proving new technologies.

The markets for renewable gases are set to grow very quickly in response to Government policy and corporate sustainability objectives. The emerging market factors include;

- Energy storage: the rationale for gas-fired generators operating on renewable gases to be eligible for inclusion in the 'capacity mechanism' is strong. It is hard to see why the moratorium on coal and gas would extend to net-zero emissions gas fired generators as this is a very attractive and viable option to address long-term energy storage in the NEM<sup>8</sup>.
- Industrial gas customers: the proposed changes to the Safeguard Mechanism require large CO2 emitters to reduce baseline emissions by 4.9% per year. Some large energy users (such as cement facilities and others) are also now actively examining renewable natural gas as a feedstock for their products.
- Shipping: displacement of diesel in the shipping industry is both commercially and environmentally attractive when assets are being replaced. The Tasmanian Government is progressing down this path, creating an expansion of the local market from later this year<sup>9</sup>.

The economic gap between natural gas and renewable gases is closing, particularly for bio-methane as was outlined in the Bioenergy Roadmap financed by ARENA (quoted as modelled to be \$9.80/GJ

---

<sup>5</sup> The TGP transport capacity is, and has always been, heavily under-utilised with very few options for expansion of the Tasmanian gas market.

<sup>6</sup> The Draft, p.6, refers to construction of Marinus Link as one such scenario where this may be the case and there are other supply/demand scenarios that could lead to that same conclusion.

<sup>7</sup> Supporting consumer choice: No mandates or moratoriums against new natural gas connections, p.18

<sup>8</sup> [Alternatives to Pioneer-Burdekin Pumped Storage Hydro Development | Oakley Greenwood](#)

<sup>9</sup> The Draft, p.7

in 2030 and \$12.20/GJ in 2021). Biomethane is also starting to be factored into the GSOO by AEMO, further testament to its potential as a replacement for natural gas.

The current investment in new technologies suggests there is also material upside to the economics of these processes. The setting up of several Research Centres to develop new technologies is being progressed and funded by the Commonwealth (e.g. GetCO2 and Future Fuels CRC). New technologies for the continuous production of biomethane are also being progressed privately in Australia and show great promise. The Victorian Government has also recognised the importance of biomethane and use of biogas in its Gas Substitution Roadmap planning and has recently funded trial programs through its Energy Innovation Fund.

### **Conclusion:**

The Tasmanian gas market is set to continue a path to being unsustainable without a significant change in direction. The change in direction suggested here is the TGP switching from southward to northward flow underpinned by the production of renewable gases in Tasmania.

The Tasmanian Gas Market Strategy could and should seize the opportunity to leverage Tasmania's competitive advantages and accelerate Tasmania's transition into phase 3 of the gas transition described in the Draft (p.17).

Tasmania may well be able to produce methanated hydrogen at lower costs than anywhere in Australia and has the infrastructure to export it to the east coast gas markets (a \$7b market at historical costs – likely to be a lot more given current marginal costs).

If successful this strategy could resolve the majority, if not all, of the challenges faced by Tasmanian gas market participants and create significant economic growth for the State. It could also attract industrial gas users and related industries and is well worth more detailed study, evaluation and trials in Tasmania.

### **Suggested additional actions for inclusion in Tasmanian Gas Strategy:**

1. Conduct a feasibility study into accelerating the production of renewable and bio methane for local use and export (starting with an update of the OGW modelling previously completed for the Working Group)
2. Seek Federal and State Energy Ministers support for the inclusion of net-zero gas-fired generation with regard the capacity mechanism

### **Linkages to other Tasmanian Government priorities:**

- A credible insurance policy for renewable energy developers dependent on Marinus Link proceeding
  - Should provide investor confidence to proceed with renewable energy development earlier
  - No impediments to an immediate start should the feasibility study prove positive
- Complementary to:
  - Tasmanian Renewable Hydrogen Action Plan

- Bioenergy Vision for Tasmania
- Tasmanian Renewable Energy Action Plan
- Tasmanian Climate Change Action Plan

**About 4C Energy:**

4C Energy is a newly established Tasmanian-based consultancy. 4C Energy's Managing Director & Principal Consultant, Gerard Flack, has 36 years' experience in renewable energy generation, NEM dispatch, wholesale and retail (C&I) energy markets (electricity, gas, environmental certificates and ancillary services). Thirty of those years were spent in leadership positions with seven at executive level as Director Wholesale Energy Services and Chief Operations Officer at Hydro Tasmania.

**Contact:** [gflack@4cenergy.com.au](mailto:gflack@4cenergy.com.au)