

12 January 2023

**Re: Energy Efficiency Council Submission to the  
Draft Future Gas Strategy for Tasmania**

The Energy Efficiency Council (EEC) welcomes the opportunity to comment on the *Draft Future Gas Strategy for Tasmania* (hereafter referred to as the '*Draft Strategy*'). The EEC is the peak body for energy management in Australia. Our members include service providers, manufacturers, governments, research institutions, not-for-profits and independent experts.

For Tasmania to reach its legislated target for net zero emissions, or lower, from 2030, it must dramatically reduce its use of gas from fossil sources, including natural gas, Liquid Petroleum Gas (LPG) and Liquefied Natural Gas (LNG). While offsets can be used to net out some use of fossil gas, the EEC expects the cost of offsets to rise substantially in the coming decade. People using fossil gas will both have to pay for highly volatile gas and offsets, making ongoing use of fossil gas often far more expensive than alternatives to fossil gasses.

Just as significantly, Tasmania needs to reduce the use of fossil gasses to reduce its exposure to major economic and energy security risks. Over the last two decades, the price of gas on the East Coast of Australia has risen dramatically from under \$4 per gigajoule (GJ) to over \$40 per GJ, and is likely to remain highly volatile.

These risks to mainland gas uses are amplified in Tasmania. As noted on page 7 of the Draft Strategy, "*Given Tasmania is a small gas market dependent on imported gas, it is vulnerable to the increasing supply and price risks associated with both gas commodity and pipeline capacity.*" In addition, the higher proportion of fossil gas use in Tasmania that is LPG and LNG makes using fossil gas much more expensive for many Tasmanians than mainland Australians.

The good news is that relatively few Tasmanian homes and businesses are exposed to the price and supply-risks associated with fossil gas use. As noted in the Draft Strategy, only 13,600 homes (6 per cent of Tasmanian households) and 1,100 businesses are connected to the natural gas network. This means that the Tasmanian Government faces a relatively manageable task in helping homes and businesses to move away from fossil gas.

In the building sector, almost all gas use can be substituted with **efficient electrification**. For many years it has been far more cost-effective to make new homes all-electric rather than dual-fuel. It is also often economic to retrofit existing homes to make them all-electric, and it is certainly far cheaper to retrofit existing homes to be all electric than to supply them with biogas or hydrogen, given that these fuels are unlikely to be economic or widely available before 2030 and that use of hydrogen will require appliance replacement.

Electrification of homes should be done efficiently to deliver three outcomes: minimized upfront costs, minimized energy bills and improving the affordability and reliability of energy supply. Electrification typically involves improvements in efficiency, with heat pump space heaters generally at least four times as efficient as gas or resistive electric heaters. However, combining efficient heat pumps with basic investments in insulation and draught-proofing can more than halve the electricity demand and capacity of the heat pump, therefore reducing the up-front cost and running costs of heat pumps.

The industrial sector will need to use a variety of strategies to reduce its fossil gas use, including energy efficiency, electrification and renewable fuels. Electricity can readily substitute for industrial heat under 100 degrees, and studies suggest that, in Europe, 34 per cent of the energy demand under 400 degrees can be supplied by existing technologies.<sup>1</sup> However, the manufacturing sector is risk-averse to adopting novel technologies that might interfere with production, and there has been relatively little large-scale demonstration of these technologies. The Tasmanian Government should support the deployment and demonstration of electrification technologies and renewable fuels in manufacturing.

Beyond these sectors, biofuels and green hydrogen have substantial promise, especially for uses like aviation fuel and fertilizers. However, the current prospects using gas networks to carry either 100 per cent biogas or hydrogen are extremely poor, based on the costs and availability of those fuels, and substantial upgrade costs if networks are intended to carry hydrogen. Therefore, we believe that it is a substantial risk to move forward assuming that the fossil gas network will be repurposed for renewable fuels. It is more likely that, if these fuels are widely used in industry, nodes will be established to provide these fuels to industrial clusters rather than pumped into an extensive network with very few users on it.

Accordingly, the EEC strongly recommends that the Tasmanian Government develop a Future Gas Strategy for Tasmania that is focused on the efficient electrification of buildings and support for industrial users for improved energy efficiency, electrification and use of renewable fuels.

The EEC welcomes the proposals in the Draft Strategy to *Support energy efficiency* (Action 6) and *Help low-income and vulnerable households to transition* (Action 7). The EEC recognizes the Tasmanian Government's existing efforts through the Energy Saver Loans Scheme and No Interest Loans Scheme. The EEC strongly recommends that the Tasmanian Government scale up its efforts with a major program to efficiently electrify all homes in Tasmania. In particular, the EEC recommends that the Tasmanian Government make a massive investment in upgrading public and community housing, as this can be used to help upskill the building industry in Tasmania to be able to deliver high-quality efficient electrification retrofits.

In summary, we need to dramatically reduce fossil gas use in Tasmania by 2030 for economic, energy security and greenhouse gas reasons. The EEC recommends that the Tasmanian Government clearly state this reality and put in place programs that are commensurate with this goal.

The EEC looks forward to continuing to work with the Department of State Growth. If you have any questions on the points raised on this submission, please contact me on 0414 065 556 or [rob.murray-leach@eec.org.au](mailto:rob.murray-leach@eec.org.au).

Yours sincerely,



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<sup>1</sup> Maddedu, S. et al. 2020 "The CO2 reduction potential for the European industry via direct electrification of heat supply (power-to-heat)" *Environmental Research Letters* 15(12)