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Mr Anton Voss
Renewables, Climate
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GPO Box 147,
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Via email to renewableenergy@stategrowth.tas.gov.au

GEA RESPONSE TO THE DRAFT FUTURE GAS STRATEGY FOR TASMANIA

Dear Mr Voss,

Gas Energy Australia (GEA) welcomes the opportunity to respond to the Draft Future Gas Strategy for Tasmania.

GEA is the national peak body representing the downstream gas fuels industry, encompassing Liquefied Petroleum Gas (LPG), Liquefied Natural Gas (LNG), Compressed Natural Gas (CNG), Hydrogen (H₂) and, increasingly, a raft of new renewable gases. Our membership comprises major companies, medium and small businesses across the gas fuels supply chain, including refiners, fuel marketers, equipment manufacturers, gas transporters, consultants and service providers.

GEA welcomes the release of the Draft Future Gas Strategy for Tasmania (the Strategy) and is very supportive of the direction for the future of gas as outlined in the report, including helping gas market participants make informed choices, investment decisions and support consumer choice in Tasmania.

As discussed in the Strategy, gas plays an important role in Tasmania's energy mix, providing reliable and affordable energy for residential, commercial, industrial and recreational customers, particularly in regional and remote areas. Compared to alternative sources of fuel, particularly electricity and liquid fuels, LPG has been an affordable and lower emitting energy source.

The Australian gas industry is on its own decarbonisation journey, which will see the emissions of the LPG sector fall dramatically, beginning in 2025 as part of a transition to not only net zero emissions, but actual zero. This will be achieved by replacing fossil LPG with renewable alternatives that are compatible with existing appliances and equipment.

Importantly, this means households, commercial operators and industrial users need not be lumbered with huge costs and the inconvenience of changing appliances or equipment. Instead, our members will deliver renewable zero emissions gases, such as bioLPG, will be the only sources of supply. In fact, based on our modelling, conventional LPG will be phased out by 2045 and replaced with net zero or actual zero gases.

Demonstrable paths to zero LPG by 2045 will also be vital in alleviating pressure on the electricity grid, as well as providing Tasmanians and Australians with the reliable, affordable and clean energy they need.

As ACIL Allen Consulting reported in *Economic Contribution of the Australia Gas Economy in 2020-21*, released in November 2022, the gas economy underpins almost \$250 million in Tasmanian economic activity, while supporting almost 1,200 jobs across the state. It is irreplaceable for industrial heat and chemical feedstock, which support around 600 local jobs.

Current portable gas fuels

Some 36,200 households in Tasmania rely on LPG, more than two-thirds of these located outside of Hobart, which reflects the necessity for LPG as a key energy source for those families, communities and businesses isolated from natural gas pipelines. As mentioned in the Strategy, LPG is widely used in Tasmania, even more so than natural gas.

“There is comparatively high residential use of LPG in Tasmania with more LPG being consumed by households than natural gas”. Draft Future Gas Strategy for Tasmania

Tasmania uses approximately 27 Kilotonnes (kT) of LPG per year, with 26 kT of that being stationary or traditional demand in homes and businesses and 1 kT being automotive demand. This total demand has been steadily increasing since 2015. Taking into account population size, Tasmania has a very high rate of LPG reliance.

With over 1,000 uses, including as a fuel for water and home heating, cooking, lighting, machinery, power generation, automotive fuel and for manufacturing and construction, bottled gases are extremely versatile. While most people are aware of the automotive uses, LPG, LNG and CNG can be used widely and readily for a range of other stationary energy and industrial uses.

The portability and flexibility of LPG and LNG enhances its reliability. LPG and LNG can be supplied from mainland Australia or overseas and can be easily stored and transported in purpose-built pressurised containers. Natural gas can be backed-up by LNG via import terminals, which could supply gas to the Tasmanian market, minimising supply risks for the state. Importantly, storage and transport infrastructure requires no alternation in accommodating renewable gases.

Downstream gases are not limited to stationary energy applications. Gas-powered transport solutions are proven low-emission technologies and offer a number of unique advantages for operators. Environmental and cost savings can be realised immediately. In the longer term, as gas transitions to renewable options, such as bio and renewable gases and hydrogen. This offers existing transport infrastructure the prospect of affordable, reliable net zero emissions energy for vehicles.

The use of LNG for marine transport has been steadily growing over the last decade, including in Australia. As mentioned in the Strategy, the right policy settings and incentives can help encourage increased uptake and investment in lower emission fuels for Australian marine vessels and encourage shipowners to look to low emission fuels as a means to reduce emissions.

Indeed, across Europe this is a fast developing reality. In 2010, Europe boasted 10 gas-fueled ships, today it's some 200, with hundreds more on order. Gas offers an immediate 25% reduction on diesel shipping emissions and is the safest option in the event of a maritime incident, as the gas is inert and neither slicks nor sediments, leaving marine life and ecosystems unaffected. The additional benefit is these vessels can easily switch to renewable gases once they become more commercially available, reducing emission to net zero and, potentially, actual zero.

LPG transition to net zero and zero

The downstream gas industry is committed to reducing emissions of gases in line with emissions reduction from electricity generation and, ultimately, reach net zero emissions or zero emission by 2050. In fact, on the trajectory mapped in 2023, conventional LPG will be obsolete by 2045.

The supply of conventional LPG will be steadily phased-out in favour of new low-emission and zero-emissions alternatives, with conventional LPG no longer in use by 2045. By 2050, zero emissions sources will be the only sources of supply in the market.

Just two of the options canvassed reducing emissions and, ultimately, achieving zero emissions, for the LPG sector are:

- **BioLPG.** Propane produced from renewable feedstocks, such as plant and vegetable waste material. BioLPG is sometimes referred to as bio-propane or as renewable LPG (rLPG). BioLPG is chemically identical to conventional LPG and so can act as an instant 'drop-in' replacement for conventional LPG, which does not require any changes to existing transport and storage infrastructure, appliances or equipment. Emissions from BioLPG can be as much as 80% lower than conventional LPG, due to external input sources. However, it is feasible that with new input technologies (for example, with transport reducing to net zero or zero), bioLPG could achieve actual zero emissions.

- **Renewable Dimethyl Ether (rDME).** DME is often described as synthetic LPG. It is chemically similar to propane and butane, so it behaves the same way as LPG, including in that it can be transported and stored as a liquid in pressurised cylinders and tanks. At the present time, DME can be blended with LPG at up to 20% by volume in existing appliances. It can also be used as a replacement for LPG, but this would require minor changes to appliances.

Internationally, bioLPG is produced and blended with conventional LPG, particularly in Europe, albeit in small volumes as a new industry. This has primarily occurred as a result of support for biodiesel and Sustainable Aviation Fuel (SAF), with bioLPG being produced alongside these products through the hydro-treated vegetable oil (HVO) process.

With demand for biodiesel and SAF in Australia expected to grow significantly over coming years, and other pathways for the production of bioLPG and rDME being investigated and developed, significant growth in bioLPG and rDME is expected globally, as well as in Australia.

There are a number of sizeable biodiesel and SAF projects already planned for Australia, including:

- **Sherdar Australia Bio Refinery:** Sherdar Australia has announced development of Australia's first biodiesel refinery and storage plant. There is currently no location for the project, however, the proposal would cost \$600 million, and the site would be able to produce 500,000 tonnes per year of biodiesel and SAF upon completion. Proposed feedstocks for production at the site include animal fats, seed oil and waste greases.
- **BP renewable fuel and green hydrogen project (WA):** BP will establish a renewable fuel and green hydrogen site in the Kwinana industrial site in Western Australia. The project would involve repurposing a fuel import site to produce 8,000-10,000 barrels of biodiesel and SAF per day from products such as waste oil, tallow and used cooking oil.
- **Oceania Biofuels Project, Gladstone (QLD):** Gladstone has been selected as the site for Oceania BioFuels' \$500 million biodiesel and SAF refinery. The project proposes to use locally sourced tallow, canola and used cooking oil to produce 350 million litres of SAF and biodiesel per year. Construction is planned to begin in 2023 and operations up and running by 2025.

Government Actions outlined in the Strategy

The Government Actions outlined in the Strategy, such as supporting consumer choice and the development of biogases and green hydrogen, provides industry with clear signals. As a policy framework, it wisely leaves the door ajar to accommodate new and emerging technologies to ensure Tasmanians can capitalise on more options to provide them with the reliable and affordable clean energy that suits them.

GEA considers the Tasmanian Government's approach to be the blueprint for other jurisdictions to note, if not follow.

Again, the reliance on gas fuels in Tasmania, particularly LPG along, with the industry's transition to net zero and actual zero options, means that Tasmanian homes, businesses, industries and entire communities can continue to use the appliances and equipment they know and love, without the massive price tag of switching to electricity. They will see the

same, if not better, transition to cleaner energy use and enjoy the security of reliable supply.

Technology-neutrality will enable new green gases to play a leading role in Tasmania's future energy mix, increasing diversification of Tasmania's energy supply.

It facilitates the take-up of the most cost-effective low emissions technology for specific applications and offers consumers a suite of opportunities to meet their zero emission objectives. The gas fuels sector is constantly developing and deploying low-emission gas technologies to deliver cleaner and cheaper products to its customers. Encouraging Australian expertise and the development of gas fuels technology creates and backs-in Australian-based manufacturing, the jobs it supports and helps keep these vital skills in Australia.

Rather than consumers incurring the additional costs and inconvenience of changing appliances or equipment, and potentially upgrading premises to facilitate new electrical load requirements, gas providers can drop in renewable, net zero or zero gases for use with existing appliances and equipment.

It makes far more sense to stick with green gas than switch to electricity that costs taxpayers tens of billions of dollars to facilitate transmission, and homeowners and businesses tens of thousands to alter their premises and change appliances.

GEA is very supportive of the Tasmanian Government's open-mindedness. The actions outlined in the Strategy, including the Commonwealth-funded Energising Tasmania initiative, providing \$17 million for training in priority areas like engineering, project management, civil construction and trades, will support the development of the key technical skills needed in a decarbonised gas market.

This support for, and investment in, the decarbonisation of the Australian gas industry will contribute to reducing both energy costs and emissions for Tasmanians, particularly in regional and rural areas.

Should you have any queries arising from this submission, or wish to discuss any issues further, please do not hesitate to contact me.

Kind regards,



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Chief Executive Officer

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