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Climate Change Authority - 2026 Annual Progress Advice Consultation

The LPG industry safely and securely supplies 43PJpa of energy to industrial, commercial and residential consumers nation-wide, including around 30% of all regional Australian households¹. Gas Energy Australia (GEA) represents Australia's liquid gas supply chains including Liquefied Petroleum Gas (LPG) and associated gases with members spanning from producers to retailers and everything in between.

GEA welcomes the Authority's focus on practical emissions reduction pathways that maintain Australia's industrial competitiveness while improving affordability, resilience and investment certainty.

Australia's liquid gas industries support Australia's net zero transition. LPG produces 14% less Scope 1 emissions than diesel today, and stores energy at 1000x lower cost than batteries. As drop-in renewable forms of LPG emerge consumers can continue to use LPG while producing 99% less greenhouse gas². Lower emissions today and net zero tomorrow, LPG is the perfect partner for renewable electricity in the cities and the bush.

GEA welcomes the Authority's recognition of the importance of maintaining Australia's industrial competitiveness while accelerating emissions reduction. Renewable liquid gases such as BioLPG represent an opportunity to reduce emissions immediately using existing infrastructure and should therefore be recognised alongside other low-carbon liquid fuels (LCLFs) within Australia's long-term decarbonisation strategy.

The Authority should recommend a consistent, emissions-performance-based framework for LCLFs, incorporating lifecycle emissions accounting, credible certification. Equal access to relevant demand-side measures according to verified emissions reduction. This would allow private investment to develop renewable liquid gas supply using existing infrastructure while maintaining affordability and energy resilience.

¹ DCCEEW, 2024, Australian Energy Update 2024,

<https://www.energy.gov.au/publications/australian-energy-update-2024>

Australian Bureau of Statistics, 2014, Environmental Issues: Energy Use and Conservation,

<https://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/4602.0.55.001Main+Features1Mar%202014>

² Frontier Economics, 2023, *Pathways to Zero Emissions for LPG*,

<https://www.gasenergyaus.au/get/2016/pathway-zero-emissions-for-lpg-frontier.pdf>

GEA recommends the Authority:

- **Recognise renewable liquid gases within Australia's decarbonisation pathway** as an emerging LCLF capable of delivering immediate lifecycle emissions reductions.
- **Support investment in renewable liquid gases** by providing policy certainty that encourages domestic production and deployment of renewable liquid gases using existing infrastructure.
- **Use a lifecycle emissions approach to supporting a diverse mix of LCLFs** to ensure renewable liquid gases and other renewable fuels are compared fairly and consistently as Australia progresses towards net zero.

Further information supporting these recommendations is provided in Appendix 1.

GEA appreciates the opportunity to contribute to the Climate Change Authority call for Annual Progress Advice and welcomes continued engagement as the Authority develops its recommendations.

To discuss any of the above feedback further, please contact me on +61 422 057 856 or via jmccollum@gasenergyaus.au.

Yours sincerely,



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The Role of LPG in Australia's Energy Landscape

Liquefied Petroleum Gas (LPG) plays a vital role in Australia's energy security and net zero transition. As a versatile energy source with drop-in renewable alternatives, LPG provides essential energy services to millions of Australians, particularly in regional and remote areas where it serves approximately 30% of households³. The LPG industry safely and securely supplies 43 petajoules of energy annually across industrial, commercial, and residential applications nationwide⁴. A further 120 petajoules of LPG is exported annually, with the LPG sector as a whole contributing over \$5bn of GDP and 20,500 FTE to the Australian economy⁵.

LPG stands out as a cleaner alternative to many traditional fossil fuels, producing 14% fewer greenhouse gas emissions than diesel⁶. The industry is actively embracing Australia's transition to net zero through the pursuit of renewable forms of LPG⁷. These include bioLPG (a co-product of Sustainable Aviation Fuel) and renewable liquid gases (rLPG) produced from hydrogen. These alternatives reduce scope 1 emissions by 99% while utilizing existing infrastructure and appliances.

One of LPG's most significant advantages is its superior energy storage capability in cheap, transportable LPG tanks. This is key in regional areas where mains power may be unreliable or unavailable. A standard residential LPG tank installation provides energy storage equivalent to more than 42 Tesla Powerwall 3 home battery systems at around one-tenth the cost⁸. This storage capacity, combined with the portability of LPG tanks, makes it an invaluable resource for energy security and emergency resilience.

The LPG industry is uniquely positioned to support Australia's energy transition without requiring government funding or subsidies. As the nation moves toward net zero emissions, renewable forms of LPG complement renewable electricity, offering a practical decarbonisation pathway for applications where electrification may not be feasible or cost-effective. By recognizing and supporting the development of renewable forms of LPG, Australia can ensure a diverse and resilient energy mix that retains energy security while achieving its climate goals.

³ Australian Bureau of Statistics, 2014, *Environmental Issues: Energy Use and Conservation*, <https://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/4602.0.55.001Main+Features1Mar%202014>

⁴ Australian Federal Department of Climate Change, Energy, the Environment and Water, 2024, *Australian Energy Update 2024*, <https://www.energy.gov.au/publications/australian-energy-update-2024>

⁵ ACIL Allen, 2022, *Economic contribution of the Australian gas economy in 2020-21*, <https://www.gasenergyaus.au/get/2123/economic-contribution-of-australian-gas-economy.pdf>

⁶ Australian Federal Government, 2024, *National Greenhouse and Energy Reporting (Measurement) Determination 2008*, <https://www.legislation.gov.au/F2008L02309/latest/text>

⁷ Frontier Economics, 2023, *Pathways to Zero Emissions for LPG*, <https://www.gasenergyaus.au/get/2016/pathway-zero-emissions-for-lpg-frontier.pdf>

⁸ Elgas, 2025, *LPG Gas Bottle Sizes*, <https://www.elgas.com.au/elgas-knowledge-hub/residential-lpg/lpg-gas-bottle-sizes-gas-bottle-dimension-measurements/>

Appendix 1

Recognising renewable liquid gases within Australia's decarbonisation pathway

Australia's transition to net zero will require a diverse mix of low-emissions energy solutions that reduce emissions while maintaining affordability, reliability and resilience. Electrification will play an important role, but LCLFs like BioLPG and other renewable liquid gases can provide a more practical and cost-effective role in decarbonising many industrial, commercial, agricultural and regional applications.

BioLPG is an emerging low-carbon liquid fuel capable of delivering immediate lifecycle emissions reductions. It can complement renewable electricity and other low-emissions fuels, particularly in applications where electrification is technically difficult, prohibitively expensive or dependent on significant infrastructure and equipment replacement.

Renewable liquid gases can also use Australia's existing LPG storage, transport, distribution and customer infrastructure. This provides a practical pathway for reducing emissions without requiring consumers and businesses to prematurely replace serviceable appliances, equipment or infrastructure.

Recognising renewable liquid gases within Australia's decarbonisation pathway would expand the range of emissions reduction options available to households and businesses and support an orderly, affordable transition to net zero. This is no more true than in regional Australia where other forms of energy supply can be unreliable or unavailable.

Supporting investment in renewable liquid gases

Australia has an opportunity to develop a domestic renewable liquid gas industry that contributes to emissions reduction while strengthening energy security, industrial competitiveness and regional economic development.

Realising this opportunity will require clear and stable policy settings. Renewable fuel production facilities involve substantial capital investment and long development timeframes. Investors therefore require confidence that renewable liquid gases will continue to be recognised within Australia's emissions reduction framework as production technologies mature and commercial deployment expands.

Recent amendments to the National Greenhouse and Energy Reporting framework recognising BioLPG and co-processed LPG represent important progress. Continued policy recognition would provide greater certainty for producers, suppliers and customers considering investment in renewable liquid gas production and use.

Australia's existing LPG infrastructure provides a strong foundation for deployment. Renewable liquid gases can be incorporated progressively into established production, storage, transport and distribution networks, reducing the cost and disruption associated with developing an entirely new energy supply chain.

Policy certainty that encourages domestic production and deployment would help Australia capture the emissions, economic development and energy security benefits of renewable liquid gases.

Lifecycle emissions, fuel diversity, affordability and resilience

Australia's climate policy should assess fuels according to their lifecycle greenhouse gas emissions. This approach considers emissions across production, processing, transport and use, providing a more complete measure of the emissions reduction delivered by renewable liquid gases and other renewable fuels.

Consistent lifecycle assessment would allow low-emissions fuels to be compared fairly and would encourage investment in solutions that deliver genuine emissions reductions. It would also support a diverse mix of renewable and low-emissions fuels, reflecting the different technical, geographic and economic requirements of Australian energy users.

This diversity will be important as Australia progresses towards net zero. No single energy source will meet the needs of every household, business, industry or community. Maintaining multiple fuel pathways will strengthen energy resilience, preserve consumer choice and reduce the risk and cost of relying on a narrow range of technologies.

LPG will continue to play an important role during the transition. It supports regional and remote communities, agriculture, industrial operations, emergency response and other applications where reliable and portable energy is essential. Renewable liquid gases provide a pathway to progressively reduce emissions from these applications while retaining the affordability, flexibility and resilience provided by existing LPG infrastructure.