

# VICTORIAN INDUSTRIAL RENEWABLE GAS GUARANTEE | *DIRECTIONS PAPER*

Australian Energy Producers | 7 February 2025

Australian Energy Producers welcomes the opportunity to make a submission on the Victorian Industrial Renewable Gas Guarantee Directions Paper.

**Natural gas is central to energy security and emissions reductions in Victoria, as well as being a key contributor to the Victorian economy.** Natural gas is critical to power generation, backing up renewables and supporting the phase out of coal. Natural gas is also an important source of heat and an essential raw material for the manufacturing of everyday products. Victoria consumed 215.2 PJ of gas in 2022-23, of which 55.5 PJ was used for manufacturing purposes<sup>1</sup>. The Victorian gas industry supports around 5,355 direct<sup>2</sup> and 35,296 indirect jobs and contributes \$22 billion to the state's economy.<sup>3</sup>

**Renewable gases may be a useful complement to natural gas but are yet to be deployed at scale and can be significantly more expensive than natural gas today.** Today, global renewable energy-based low-carbon hydrogen production amounts to around 11 PJ per year and is produced at a cost of around \$42 to \$83 per GJ<sup>4</sup> – compared to around \$12/GJ for natural gas in Australia. To put this into perspective, global renewable-based low-carbon hydrogen would substitute for Victorian natural gas demand for around 16 days. Biomethane can utilise existing natural gas infrastructure but is challenging to scale up and must be sourced sustainably so as not to negatively impact other agricultural supply chains.

Downplaying the vital role of natural gas in Victoria's economy jeopardises energy security, makes the energy transition harder, drives up energy prices and worsens cost-of-living pressures for all Victorians. Similarly, overestimating the current viability of alternative fuel sources, including renewable gases, does not provide any benefit to Victorian households and businesses.

## **Key considerations and recommendations:**

- Policies that mandate the use of fuels that are not yet technically or commercially viable risk increasing the cost of energy for Victorians and exacerbating cost-of-living pressures.
- Low-carbon hydrogen produced from natural gas with carbon capture, utilisation and storage (CCUS) can reduce the cost and speed up emissions reductions and should be included in all Victorian low-carbon gas policies.
- The Victorian Government should focus on the development of Victorian natural gas to help deliver least-cost energy and emissions reductions for the state.

Australian Energy Producers look forward to inputting further into the discussions of a Victorian Industrial Renewable Gas Guarantee as they advance.

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<sup>1</sup> <https://www.energy.gov.au/publications/australian-energy-update-2024>

<sup>2</sup> Australian National Accounts: Input-Output Tables – Table 20. Employment by industry – 2021-22

<sup>3</sup> Direct and Indirect contribution. KPMG, *Economic contribution of the gas industry*, 2024

<sup>4</sup> Department of Climate Change, Energy, the Environment and Water, *National Hydrogen Strategy*, 2024

**Natural gas is central to energy security and emissions reductions in Victoria, as well as being a key contributor to the Victorian economy.** Victoria consumed 215.2 PJ of gas in 2022-23, of which 55.5 PJ was used for manufacturing purposes<sup>5</sup>. Natural gas is critical to power generation, backing up renewable energy and supporting the phase out of coal. Natural gas is an import source of heat and an essential raw material for the manufacturing of everyday products. In Victoria, the gas industry supports around 5,355 direct<sup>6</sup> and 35,296 indirect jobs and contributes \$22 billion to the state's economy<sup>7</sup>. Natural gas is integral to numerous processes that underpin the manufacturing sector in Victoria, which is a \$33.5 billion<sup>8</sup> industry employing around 260,000<sup>9</sup> people. Overall, natural gas contributes 37 per cent of all energy used by Australian manufacturing.

**Renewable gases may complement natural gas but are yet to be deployed at scale and can be significantly more expensive than natural gas today.** While renewable hydrogen has gained significant attention in recent years as an alternative energy source and feedstock to natural gas use across the economy, including hard-to-abate industry sectors, global renewable hydrogen production is still embryonic. According to the International Energy Agency (IEA), in 2024 around 85,000 tonnes of renewable-based hydrogen was produced.<sup>10</sup> To further put this into perspective, 85,000 tonnes of hydrogen has an energy content of around 11 PJ. Victoria uses 215.2 PJ of natural gas annually – meaning the world's total renewable-based hydrogen capacity could replace natural gas use in Victoria for less than 16 days. Further, according to the National Hydrogen Strategy, renewable hydrogen currently costs between \$5 and \$10 per kilogram, which equates to \$42 to \$83 per GJ – compared to around \$12/GJ for natural gas. The Hydrogen Strategy estimates renewable hydrogen will still cost between \$17 to \$42/GJ in 2030.

Global biomethane production currently equates to around 145 PJ<sup>11</sup> of energy, or the energy equivalent of around 10 per cent of Australia's total gas demand. Biomethane production is currently concentrated in Europe which produces around 91 PJ per year, compared with the Asia Pacific region that produces around 9 PJ annually. The very small project size and distributed nature of sustainable project locations points to challenges with scalability of biomethane as a viable alternative to natural gas. Further, it is critical that feedstocks for biomethane and bioenergy of all types are sourced sustainably so as not to negatively impact other agricultural supply chains.

**Policies that mandate the use of fuels that are not yet technically or commercially viable risk increasing the cost of energy for Victorians and exacerbating cost-of-living pressures.**

Downplaying the vital role of natural gas in Victoria's economy and net-zero transition, while overestimating the viability of alternative fuel sources, can jeopardise energy security, make the energy transition harder, and drive-up prices, worsening the cost-of-living pressures for all Victorians.

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<sup>5</sup> <https://www.energy.gov.au/publications/australian-energy-update-2024>

<sup>6</sup> Australian National Accounts: Input-Output Tables – Table 20. Employment by industry – 2021-22

<sup>7</sup> Direct and Indirect contribution. KPMG, Economic contribution of the gas industry, 2024

<sup>8</sup> Victorian Department of Jobs, Skills, Industry and Regions, [Victorian Manufacturing](#) (website), accessed Feb 2025

<sup>9</sup> Victorian Department of Jobs, Skills, Industry and Regions, [A ready workforce](#) (website), accessed Feb 2025

<sup>10</sup> IEA, *World Energy Outlook 2024*, 2024

<sup>11</sup> IEA, [An introduction to biogas and biomethane](#) (website), accessed Feb 2025

**Low-carbon hydrogen produced from natural gas with carbon capture, utilisation and storage (CCUS) can reduce the cost and speed up emissions reductions and should be included in all Victorian low-carbon gas policies.** Low carbon hydrogen from natural gas with CCUS is the lowest cost and most technologically advanced low-carbon hydrogen. According to the National Hydrogen Strategy,<sup>12</sup> low-carbon hydrogen from natural gas with CCUS is up to two-and-a-half times cheaper than renewable energy-based hydrogen today. Further, natural gas with CCUS is the most technologically advanced and widely deployed pathway to low-carbon hydrogen, meaning it has the ability to scale up faster, to facilitate other low-carbon hydrogen pathways as they scale up and costs come down. The IEA find that 85 per cent of all low-carbon hydrogen produced today is produced using natural gas with CCUS, with 14 per cent produced from renewables, including wind and solar.<sup>13</sup>

**The Victorian Government should focus on the development of Victorian natural gas to help deliver least-cost energy and emissions reductions needs of the state.** Optimal energy and climate policies in Victoria should be based on a least-cost, technology neutral approach to achieving key energy, climate and economic outcomes, which includes a key role for natural gas. Geoscience Australia estimates that Victoria has in excess of 6,000 PJ of conventional natural gas reserves and resources<sup>14</sup> – over a quarter of a century of Victoria’s current gas demand. However, the Victorian government’s approach to natural gas continues to place barriers in the way of gas project developments as well as impacting investment confidence, which is translating to forecast gas shortfalls in the state at peak times from this year, and structurally from 2027.<sup>15</sup> Should shortfalls be allowed to occur they will have a significant impact on the economy, including risking energy security and exacerbating cost-of-living pressures for all Victorian households and businesses. The Victorian government must urgently look to restore investor confidence in the gas market as well as remove barriers to gas exploration and production in order to deliver least-cost energy security and emissions reductions for the state.

Policies that aim only to decrease gas demand or intervene in the market to favour one technology over another will hurt Victorian consumers by creating inefficiencies that result in decreased energy security, increased energy costs, increased costs of emissions reductions, and decreased economic outcomes.

If you have any questions about any matters raised in this submission, please contact me on 0407 000 926 or [pkos@energyproducers.au](mailto:pkos@energyproducers.au)

Yours sincerely,



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<sup>12</sup> Department of Climate Change, Energy, the Environment and Water, *National Hydrogen Strategy*, 2024

<sup>13</sup> IEA, *World Energy Outlook 2024*, 2024

<sup>14</sup> Geoscience Australia, *Australia’s Energy Commodity Resources 2024*, 2024

<sup>15</sup> Australian Competition and Consumer Committee, *December Gas Inquiry 2017-2030*, 2024