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## Decarbonising Victoria's gas sector

### Overview

Natural gas has been a critical source of energy in Victoria for decades. It is used in power generation, manufacturing, as well as in households for cooking, heating and hot water. It has also generated significant export earnings. Victoria is more reliant on natural gas than all other states and territories in Australia.

But natural gas is a fossil fuel which releases carbon dioxide into the atmosphere, contributing to global warming and climate change. The global community is desperate to end its dependence on fossil fuels for energy use.

The Victorian Government recognises that it must play its part to help mitigate the impacts of climate change and has set a target of net zero emissions by 2050. Transitioning to fully sustainable energy sources will form part of its strategy to achieving this target.

The Victorian Government will release its Gas Substitution Roadmap in late 2021. It will identify policy mechanisms and detail opportunities to decarbonise Victoria's gas sector through electrification, the use of alternative gases including hydrogen, biomethane and biogas, as well as energy efficiency measures.

### Key challenges

**Cost:** Regardless of the decarbonisation pathway selected by the Victorian Government, it will be an expensive undertaking. The challenge of ensuring that the *right* decisions are made, which minimise the costs for the government, consumers and investors, is not insignificant.

**Electricity reliability:** If widespread electrification is pursued, whereby natural gas consumption is replaced with electricity generated from renewable sources, the added demand placed on the electricity grid may test its capacity to deliver reliable energy, especially during peak periods.

**Gas infrastructure use:** It is possible to replace natural gas with substitute fuels that are transported through Victoria's extensive gas infrastructure. While transporting biomethane would present no complications, the same cannot be said for hydrogen, which would likely require costly changes to various infrastructure and devices.

**Ambiguity:** Victoria's gas decarbonisation pathway is not clear. A long-term plan will have to allow for technological advancements and new information, so the Victorian Government can respond and adapt.

**Governance:** In response to the pandemic-induced economic impacts, the Federal Government announced a 'gas-led recovery,' which includes unlocking new gas supply. Policy alignment between the federal and state governments, and across national jurisdictions, would assist with the transition to more sustainable energy sources.

### Short-term responses

With the appropriate long-term solutions still to be determined, a suite of short-term policies and initiatives are required to initiate the decarbonisation process, as the appropriate long-term options come into focus.

**Develop a plan:** A clear, step-by-step plan should be included in the Gas Substitution Roadmap, with short, medium and long-term priorities identified. A timeframe for decision-making would help drive momentum, as well as guide private investment decisions.

**Expand energy efficiency programs:** The Victorian Energy Upgrades program includes targets to reduce energy consumption by as much as seven per cent by 2025, with targets to increase each year between 2022 and 2025; a positive development. Identifying additional areas to improve energy

efficiency could be considered, including home insulation incentives, as well as consideration for expanding the energy consumption targets beyond 2025.

**Invest in renewable energy:** The Victorian Government should invest heavily in renewable energy infrastructure and, with the Federal Government, ensure the regulatory environment incentivises institutional and retail renewable energy investment. While capacity firming solutions will help ensure adequate supply, excess renewable energy could enable green hydrogen and green steel production, encourage zero carbon manufacturing, create jobs and export opportunities.

**Build strong partnerships:** Investing in partnerships with industry, the community and other governments, will be necessary for the delivery of the determined strategy. While the Victorian Government is responsible for the state's overall energy and climate policy, success hinges on its capacity to work effectively with others. Consideration of a permanent and prominent taskforce, made up of these stakeholders, may be needed.