

Getting off gas – the next step in the energy market transformation

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About this update

This dated news record has been reorganised for clear reading and connected to current guidance.

Publication date: June 9, 2020.

Status note: Present-tense statements, market figures, deadlines and program details in the archived record belong to its publication date. Check current official sources before making a decision.

What this article reported

Northmore Gordon was recently engaged by Environment Victoria to assess the Victorian gas market supply and demand balance in the next ten years and the role of demand side measures in avoiding any shortfalls.

The eastern Australian gas market has undergone significant transformation in the last five years with six gas trains built in QLD supplying LNG to an export market, and significant growth in gas production in Northern Australia (namely from coal seam gas sources in QLD). Alongside this expansion of QLD gas supply, offshore gas resources in Victoria (Otway, Bass, and Gippsland) that have supplied southern states (SA, Vic, NSW, and Tas) have begun to deplete.

The 2019 Gas Statement of Opportunities prepared by the Australian Energy Market Operator (AEMO) highlighted a potential gas supply shortfall to the southern states by 2025. This forecast shortfall was responded to with calls for immediate government action to facilitate new gas production wells and other measures to increase supply. While many voices are calling for additional gas supplies, there has been considerably less attention on the potential for measures that reduce gas demand to serve as a solution to the forecast gas shortfall.

Using data from the 2019 AEMO Gas Statement of Opportunities and modelled Victorian gas demand for each sector Northmore Gordon have estimated the annual surplus or shortfall in Victoria until 2030. Forecast production estimates were taken from existing, committed, and anticipated projects, but did not include any available supply from northern regions transported via gas pipeline to Victoria.

Our analysis found that, on an annual basis, there is enough supply capacity in Victoria until 2027, however from 2027 until 2030 there is a shortfall of between 26 PJ and 85 PJ.

The same technology innovation that has led to development and falling prices in wind and solar PV renewable energy, has resulting in a plethora of high efficiency electric alternatives to fossil fuel combustion driven equipment. These include reverse cycle air-conditioners; heat pump hot water systems; induction, microwave, and infrared process heating systems. Households and industry, forced to innovate by unprofitably high gas prices, has recognised the competitive advantage of direct procurement of renewable electricity (e.g. via on-site solar PV and Corporate Power Purchase Agreements) and combining these with efficient electric alternatives to out-dated natural gas combustion systems.

We assessed the potential for readily available electrification technologies and gas efficiency activities to significantly reduce Victorian gas demand and offset the need for new gas field developments. This review was based on existing published literature and previous work by Northmore Gordon for commercial and industrial clients. Measures were selected that were considered generally applicable and achievable in the next 5 to 10 years with current technology and targeted economic support.

Modelling a linear adoption of proposed measures and mapping the resulting gas demand reduction against the forecast supply adequacy we demonstrated that the adoption of measures such as energy efficiency and fuel switching entirely eliminates the forecast shortfall, with the exception of 2028 which had a minor 6.5PJ modelled shortfall.

A detailed review was also conducted of existing and historic government support programs relating to gas usage and energy efficiency. The review investigated the efficacy of current programs in supporting households and businesses to improve energy efficiency and identifying potential pathways for supporting gas demand reduction measures. Building on this review and discussions with industry association representatives, a number of policy drivers were also identified in the study. These included:

- Amendment of Victorian Energy Upgrades (VEU) activities to remove support for fuel switching from electric to gas
- Introduction of new VEU activities to incentivise replacement of gas hot water systems and gas space heating systems with electric heat pump and reverse cycle air-conditioners.
- Amending the Victorian Building Authority Minimum 6 star energy provisions to include heat pumps as acceptable solar hot water systems
- Establishing a Sustainability Victoria led training program, coupled with VEU support, to engage and educate relevant trades, developers, and building owners on all-electric homes
- Establishment of a new energy efficient business program, similar to the NSW Business Energy Saver Program within the Victorian Department of Environment Water Land and Planning (DEWLP) or the Department of Jobs Precincts and Regions (DJPR).
- Provide Victorian government backing and joint funding to the ARENA renewable process heat program.

Copies of the report can be downloaded from Environment Victoria's website: <https://environmentvictoria.org.au/2020/06/03/a-gas-free-recovery-new-report-shows-how-phasing-out-gas-will-benefit-all-victorians/>

For more information about the study or to speak with us about gas market analysis capabilities at Northmore Gordon or get in touch with Trent Hawkins via LinkedIn.

How to use this information now

For current use, confirm the applicable scheme rules, regulator notices, market date and reporting period. Keep historical prices or forecasts separate from present quotes and verified outcomes.

Separate source-reported facts from forecasts, targets and commentary. For a current project, retain the official source, version, effective date, assumptions and decision record in the evidence file.

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What gas supply challenges did Northmore Gordon's analysis identify for Victoria between 2027 and 2030?

Our analysis found that while Victoria has sufficient annual gas supply capacity until 2027, a forecast shortfall of 26 to 85 petajoules emerges from 2027 to 2030. This shortfall results from the depletion of offshore Victorian gas resources (Otway, Bass, and Gippsland) that previously supplied South Australia, Victoria, New South Wales, and Tasmania. Understanding this supply trajectory is critical for businesses and investors planning long-term energy strategies, as it signals both regulatory risk for gas-dependent operations and commercial opportunity for electrification solutions.

How can demand-side measures address Victoria's projected gas shortfall?

Our modelling demonstrated that linear adoption of energy efficiency improvements and fuel-switching measures entirely eliminates the forecast shortfall, except for a minor 6.5 petajoule shortfall remaining in 2028. This finding shows that operational and technology changes—rather than additional supply infrastructure—can resolve the constraint. Organisations can leverage this insight when building business cases for electrification projects, as demand-reduction strategies now have policy and market validation supporting their economic and strategic merit.

What electric heating technologies did Northmore Gordon identify as viable replacements for gas combustion equipment?

We identified reverse cycle air-conditioners, heat pump hot water systems, and induction, microwave, and infrared process heating as electric alternatives to gas equipment. These technologies have become economically competitive due to cost reductions driven by the same innovation cycle that lowered wind and solar PV prices. For industrial and commercial facilities, we can assess the technical and financial feasibility of transitioning specific heating processes to these technologies, incorporating electrification assessment, equipment specifications, and integrated energy strategy development.

What policy amendments to the Victorian Energy Upgrades scheme did Northmore Gordon recommend?

We recommended two key amendments: removing VEU support for fuel switching from electric to gas, and introducing new VEU activities to incentivise replacing gas hot water and space heating systems with electric heat pumps and reverse cycle air-conditioners. These policy changes directly enable certificate creation for electrification projects. Understanding the intended policy landscape helps organisations plan timing for project eligibility and funding, while our knowledge of VEU pathways positions it to advise on how these changes affect project assessment and certificate viability when they are enacted.

How did Northmore Gordon connect energy efficiency and fuel switching in addressing gas supply constraints?

Our analysis modelled both energy efficiency improvements and fuel-switching measures together to demonstrate their combined effect on closing the gas supply gap. This integrated approach recognises that some organisations will reduce gas demand through efficiency alone (insulation, controls, process optimisation), while others will switch to electric technologies entirely. For businesses evaluating their gas transition strategy, our capability in energy auditing, feasibility assessment, and combined scenario planning—as documented in its energy optimisation services—enables comparison of efficiency-only versus electrification pathways with consistent assumptions and financial frameworks.

What broader policy drivers beyond VEU amendments did the study identify for accelerating gas transition?

Beyond VEU changes, our report identified amending Victorian Building Authority Minimum Energy Star provisions to include heat pumps as acceptable alternatives; establishing a Sustainability Victoria-led training program for trades and builders on all-electric homes; creating a business energy efficiency program similar to NSW's Business Energy Saver Program; and securing Victorian government backing for the ARENA renewable process heat program. These multi-layered policy recommendations reflect that gas transition requires coordinated action across building standards, workforce capability, business support, and technology investment. Organisations operating in Victoria can anticipate these policy drivers when developing long-term decarbonisation strategies.

Why is the timing of Victoria's gas supply shortfall significant for investment decisions?

The 2027-2030 timeframe for Victoria's gas shortfall creates a defined planning horizon for organisations to transition gas-dependent operations. Waiting until 2027 to plan electrification risks installation backlogs, supply-chain delays, and reduced bargaining power. Organisations that begin feasibility and procurement planning now can commission new heating systems before peak demand, lock in pricing, and avoid operational disruption. Our transition planning and feasibility assessment services—including electrification viability analysis and integrated energy strategy development—help organisations establish realistic timelines and staged implementation pathways aligned with both supply constraints and their own operational readiness.

How does Northmore Gordon's environmental certificate expertise apply to gas-transition projects?

Gas-to-electric heating transitions may generate Victorian Energy Efficiency Certificates under prescribed or project-based VEU activities, particularly for heat pump installations. We provide environmental certificate assessment, project registration support, and commercial evaluation of certificate contributions to investment cases. As the study's policy recommendations for enhanced VEU incentives are considered, organisations planning electrification upgrades should engage early on certificate eligibility, measurement requirements, and funding pathways. Our measurement and verification services ensure that energy savings from heating system changes are credibly documented for both operational reporting and certificate claims.