MARCH 2021

BRIEFING PAPER

Demand side measures overlooked in Victorian gas shortfall estimates

Supplementary information in advance of AEMO's *Gas Statement of Opportunities* and *Victorian Gas Planning Report*

There are currently three gas import terminals proposed for Victoria. The main justification for these is a projected gas shortfall in winter 2024, based largely on forecasts from AEMO's reports – the *Gas Statement of Opportunities* (GSOO) and the *Victorian Gas Planning Report* (VGPR).

However, the method AEMO uses to forecast the gas market can underestimate future policies and programs that will reduce gas demand. While gas supply is considered at a range of certainty levels, gas demand measures are only considered when they are highly certain.

This briefing paper fills this gap in AEMO's forecasting by summarising research into gas demand reduction measures for Victoria.

BACKGROUND

• In previous years, AEMO's *Gas Statement of Opportunities* (GSOO) and *Victorian Gas Planning Report* (VGPR) have forecast a decrease in Victorian gas production and a potential shortfall by the winter of 2024.

• The key challenge will be meeting peak consumption during winter, which is driven by residential space heating.

• In March 2020, the VGPR forecast shortfalls of 27 terajoules per day (TJ/d) for 1-in-2-year events and 153 TJ/d for rare 1-in-20-year events.

• AEMO has been criticised for focusing only on supply side measures in its forecasts while ignoring the potential of demand side measures to increase energy security.

DEMAND SIDE MEASURES CAN SOLVE FORECAST GAS SHORTFALL

• In 2020 Environment Victoria commissioned energy consultants Northmore Gordon to analyse the impact of demand side measures on the forecast gas shortfall.[1]

• Northmore Gordon analysed measures achievable in the next 5-10 years and found that Victoria could reduce its annual gas consumption by around half (98-113 PJ) by 2030.

• The report shows that, with targeted economic support, demand side measures have the potential to address energy concerns without the need for new sources of gas supply, including AGL's proposed gas import terminal at Crib Point in Westernport Bay.

• The main measures include replacing old gas ducted heating systems (48 PJ), encouraging Victorians to use their existing air conditioners for space heating (5-15 PJ), improving building

[1] https://environmentvictoria.org.au/2020/06/03/victorian-gas-market-demand-side-measures-to-avoid-forecast-supply-shortfall/

environment victoria

For more information please contact Nicholas Aberle, Senior Campaigner
n.aberle@environmentvictoria.org.au | 0402512121

insulation (>10 PJ) and replacing gas water heaters with heat pumps (10 PJ).

NEW VICTORIAN ENERGY POLICIES MAY ALREADY ADDRESS MOST COMMON GAS SHORTFALL

• The Victorian government has announced a program to replace 250,000 residential heaters over the next four years, among a range of other energy efficiency and electrification policies.

• Our calculations show this heater replacement program alone will reduce gas consumption by 33-34 TJ/d – enough to avoid shortfalls in 1-in-2-year events in 2024.[2]

• Broader electrification of households could help avoid shortfalls in 1-in-20-year events by the same year.

• This Victorian government program and other energy efficiency and electrification policies demonstrate that gas usage is likely to fall significantly over the coming decade, calling into question the need for new supply projects such as gas import terminals.

AEMO ASSESSMENT OF DEMAND AND SUPPLY OPPORTUNITIES NEEDS AN URGENT REVAMP

• When considering available gas resources, AEMO includes resources with different levels of production probability ranging from more than 90% to less than 10%. On one side of the spectrum are 'proven resources', which are those with more than a 90% of certainty of being produced. On the other end of the spectrum AEMO also includes 'contingent resources', which are those that are not considered as recoverable under the current conditions.

• In contrast the impacts of efficiency or fuel switching are only considered when they are highly certain as an adjustment of the projected demand.[3]

• The absence of official AEMO analysis of potential demand side measures means decision makers and energy commentators tend to focus on supply side options as the only way to address energy security.

• To fix this AEMO should model different scenarios of demand side measures depending on their economic and technical viability similarly as it does with gas supplies.

• A revamped approach to forecasting gas consumption is warranted so governments across Australia can make better decisions in the energy space and avoid the development of unnecessary and polluting fossil fuel projects.

[2] https://environmentvictoria.org.au/2021/03/11/replacing-household-gas-heaters-avoids-victorian-winter-gas-shortfalls/

[3] https://aemo.com.au/-/media/files/gas/national_planning_and_forecasting/gsoo/2020/gas-demand-forecasting-methodology.pdf P.17

For more information please contact Nicholas Aberle, Senior Campaigner
n.aberle@environmentvictoria.org.au | 0402512121