

AUSTRALIA'S GAS FUTURE AT A CROSSROADS

The Australian Energy Market Operator's (AEMO) third annual *National Gas Forecasting Report* (NGFR) released today highlights some of the uncertainties and challenges complicating gas demand forecasts for eastern and south-eastern Australia's interconnected gas markets over the next 20 years.

The 2016 NGFR provides insights into the increasingly complex interdependencies between the gas and electricity sectors and the relationship between Australia's energy demand and growing links to the international gas sector.

The gas forecasts continue to be dominated by gas demand to supply liquefied natural gas (LNG) exports, with Australia (including east and west coast LNG) projected to become the world's second largest LNG exporter by 2018, and the major LNG supplier for East Asian markets.

AEMO Chief Operating Officer Mike Cleary cautioned that these projections identify a range of major uncertainties facing the industry.

"With this outlook comes great challenges for policy-makers, infrastructure planners, and asset operators. As we continue to highlight in each of our forecasting and planning reports, the energy industry, the economy, and the consumer is transforming rapidly, requiring a re-thinking of the energy system and new solutions to manage the transition to new energy sources and technology.

"The domestic gas sector in eastern and south-eastern Australia is now linked to a more volatile world market for gas through our LNG export industry, and small supply chain disruptions can have large domestic impacts," said Mr Cleary.

Mr Cleary said that gas-powered generation (GPG) is expected to play an important role in the transition to a low-carbon future.

"It is anticipated that gas will play a key role in the transition to a low-emission future, however the size of this role will depend on the pathway that the Australian energy industry takes. GPG's role will be important in balancing the gap between retirement of coal powered generation and the implementation of new intermittent renewable energy sources in the absence of alternatives such as large-scale storage and demand management.

"In the short term, projected GPG growth is forecast to stretch available domestic conventional gas supply, with the greatest gas supply challenge forecast to occur between 2018 and 2024.

"In this scenario, as new gas is sourced from higher-cost fields, combined with the effect of less domestic supply relative to demand, gas commodity prices are expected to rise. While the projected impact on the retail price paid by households and businesses will not reflect this high increase, modelling indicates the price impact to consumers could contribute to a reduction in domestic gas use," said Mr Cleary.

Mr Cleary emphasised the importance of a coordinated approach to forecasting the complex dynamics shaping Australia's energy future.

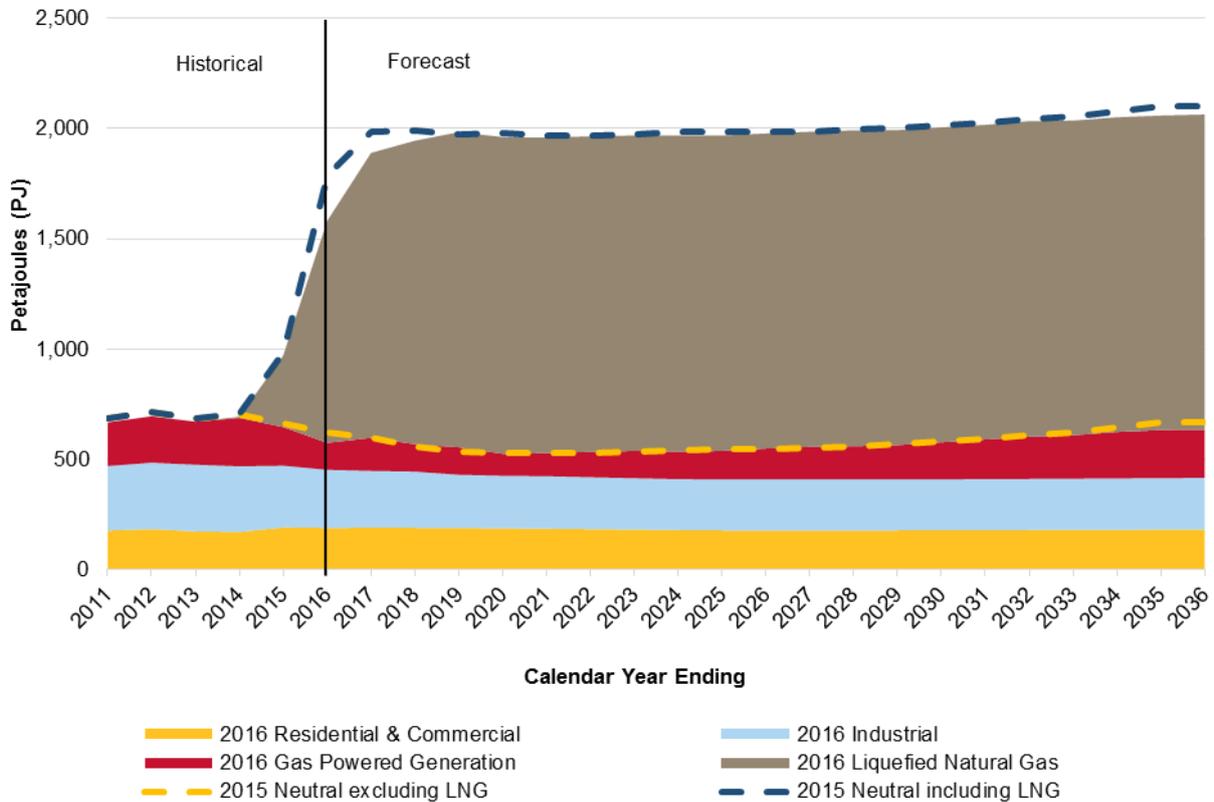
"With the projections for gas consumption showing a number of potential investments having an increased risk of being stranded if weaker economic assumptions were to occur, now more than ever planning solutions will need to prioritise flexibility, innovation and options to defer investment until some uncertainty is resolved.

"A coordinated forecasting approach is imperative given the range of possible pathways to Australia's energy future," said Mr Cleary. "Through our energy forecasting and planning reports, AEMO is focused on providing industry with an independent, strategic and holistic view of the interdependencies driving Australia's energy future. Our reports map out the increasingly complex dynamics between gas, electricity, and emissions policy objectives."

AEMO continues to liaise with gas industry participants and monitor key uncertainties facing the sector, and will provide updates if there are material changes to market conditions.

Figure 1 shows actual consumption since 2011 and forecast consumption to 2036. It highlights the short-term transformation of the market during the ramp-up of the LNG facilities, together with the recovery of GPG from the 2020s. It also illustrates a slight decline in both Residential and Commercial, and Industrial consumption over the 20-year outlook.

Figure 1 Total annual gas consumption by sector, 2016 to 2036 (Neutral economic scenario)



About the 2016 National Gas Forecasting Report

The NGFR provides forecasts of annual gas consumption and maximum gas demand across eastern and south-eastern Australia’s interconnected gas markets over a 20-year outlook period. The forecasting scenario, developed with industry, represents the most probable pathway for Australia, with Neutral (most likely), Weak and Strong economic scenarios

2016 NGFR: A SNAPSHOT OF GAS CONSUMPTION OVER THE NEXT 20 YEARS (NEUTRAL CASE)

- Total gas consumption is forecast to rise, driven by LNG exports and growth in GPG.
- Domestic gas use (excluding GPG) is projected to decline, with growth from a rising population offset by a gas to electric appliance switching trend, and declines in gas-intensive industry.
- GPG is forecast to increase as gas is used as a transition fuel to a low-emission power system.
- LNG is forecast to continue ramping up as Coal Seam Gas (CSG) projects commence deliveries of gas for export.

Supporting materials:

- [2016 National Gas Forecasting Report infographic](#)
- [2016 National Gas Forecasting Report data only](#)
- [2016 National Gas Forecasting Report full report](#)

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For AEMO media enquiries, please contact:

M: 0409 382 121

E: media@aemo.com.au



ABOUT AEMO

AEMO is responsible for operating Australia's largest gas and electricity markets and power systems, including the National Electricity Market and interconnected power system in Australia's eastern and south-eastern seaboard, and the Wholesale Electricity Market and power system in Western Australia.

AEMO also operates the Victorian Declared Wholesale Gas Market and the Victorian gas transmission system; the wholesale gas Short Term Trading Market hubs in Adelaide, Sydney and Brisbane; the Wallumbilla Gas Supply Hub in Queensland; and the Moomba Gas Supply Hub in South Australia.

As Australia's independent energy markets and power systems operator, AEMO provides critical planning, forecasting and power systems security advice and services to deliver energy security for all Australians. For more information, head to www.aemo.com.au