

Gas Demand Is Dying Under the Weight of Nose Bleed Prices

An Analysis of the International Gas Union's Wholesale Price Survey

Executive Summary

Contract 'natural' gas prices in eastern Australia are at levels that make gas an uncompetitive fuel in all sectors of gas usage.

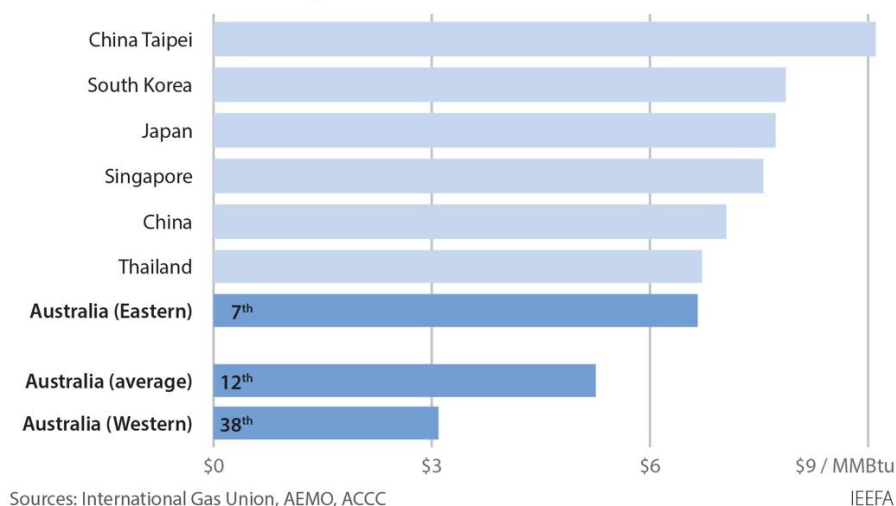
Eastern Australia is a major exporter of LNG. Such is the plentiful supply of gas in eastern Australia that 70% of the gas produced is exported.

Domestically, eastern Australian wholesale gas prices are the 7th most expensive out of 54 countries surveyed by the International Gas Union. Of the major exporters, eastern Australian wholesale contract prices are:

- Over 5½ times those of Qatar, the second largest exporter of LNG
- Over 3 times the price of gas in the USA
- Nearly 5 times the price of gas in the Russian Federation.

Gas Price Survey Reveals Split Australian Market

Eastern Australia is seventh most expensive market in the world



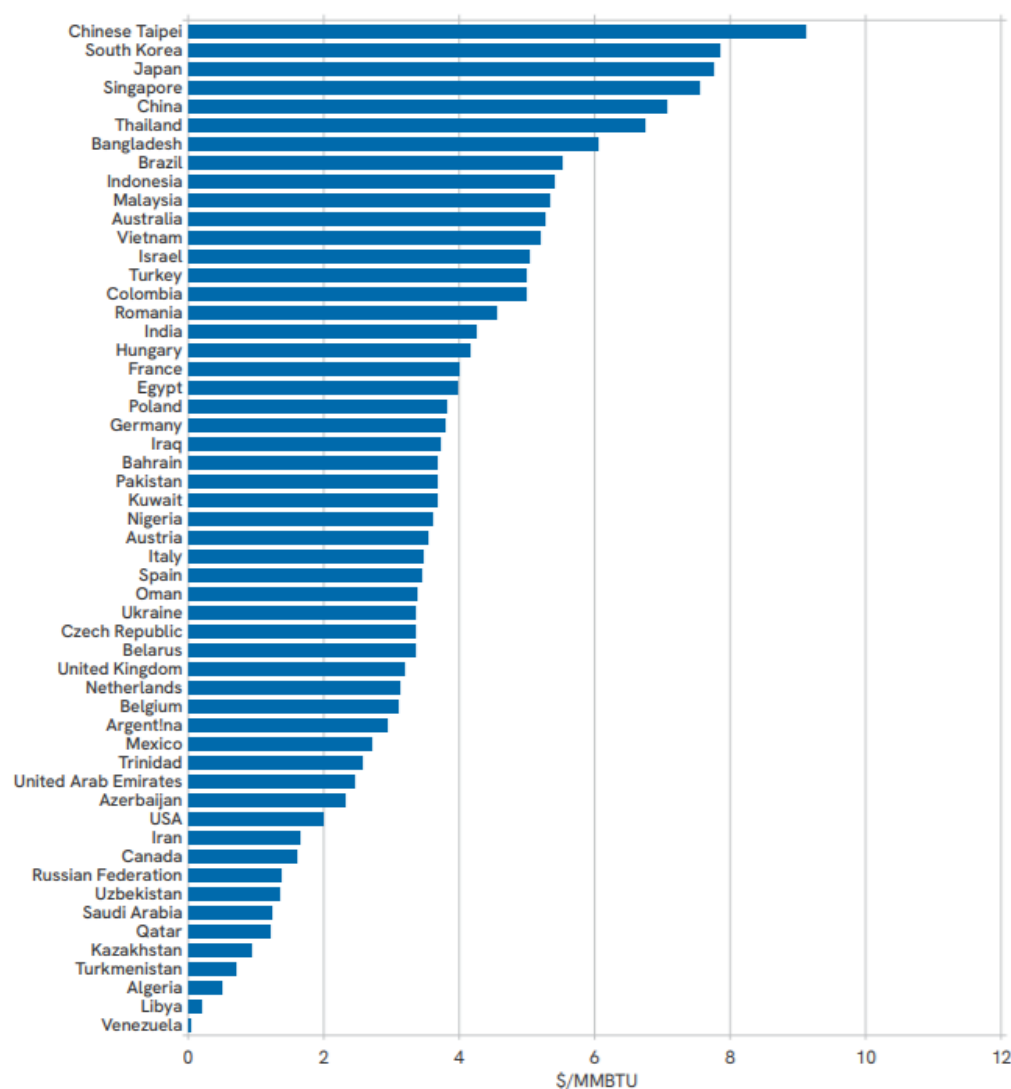
The result of the decline of gas as a competitive source of energy in eastern Australia is that gas consumption has fallen 23% since 2014. In the gas-fired generation sector (for electricity production), gas usage has fallen a staggering 67%.

Far from being a transition fuel, gas is a fuel transitioning out of the energy system.

Introduction

The International Gas Union (IGU) released their annual Global Wholesale Gas Price Survey 2021¹ on 8 July 2021. The report contains a graphic highlighting domestic wholesale gas prices for the 54 countries surveyed, which provides an interesting comparison of global contract prices for domestic users of gas.

Figure 1: International Gas Union (IGU) – Wholesale Prices in 2020 by Market



Source: International Gas Union - Wholesale Gas Price Survey 2021. Page 36.

¹ International Gas Union. Global Wholesale Gas Price Survey 2021. 8 July 2021.

Gas Pricing in Australia

The IGU has listed Australia as having just one market which is incorrect. Australia has two distinct gas markets: Western Australia and eastern Australia.

The West Australian government has looked after their domestic gas customers by instituting a domestic gas reserve policy. This policy is very generous to gas producers. Far from discouraging investment into gas and LNG, it has resulted in an investment boom into major gas production projects throughout the state over the last decade.

In the eastern gas region, a ‘market’ per say does not exist. Instead, it is a tightly controlled oligopoly where the gas companies illegally fix the gas price at levels far above international parity. IEEFA has often referred to the gas price fixing oligopoly as a cartel which operates in broad daylight with government blessing.

Illegal Price Fixing of Gas in Australia Meekly Accepted

The illegal price fixing of gas that occurs in eastern Australia is so openly accepted that the Australian Competition and Consumer Commission (ACCC) runs an almost never ending gas price inquiry. The ACCC has written 15 reports on gas pricing in the eastern market over 2 inquiries spanning 5 years.

Each weighty ACCC report essentially comes to the same conclusion – we pay too much for gas on the east coast of Australia. The ACCC fails to identify the core reason as to why or indeed take any material action.

The most recent ACCC inquiry has had multiple extensions and is now slated to end in 2025. IEEFA fully expects that unless firm action is taken, by the government and the ACCC, the inquiry will continue indefinitely. Such is the political influence of the gas industry on both sides of politics that IEEFA considers it highly likely that the gas price inquiry will continue for the foreseeable future.

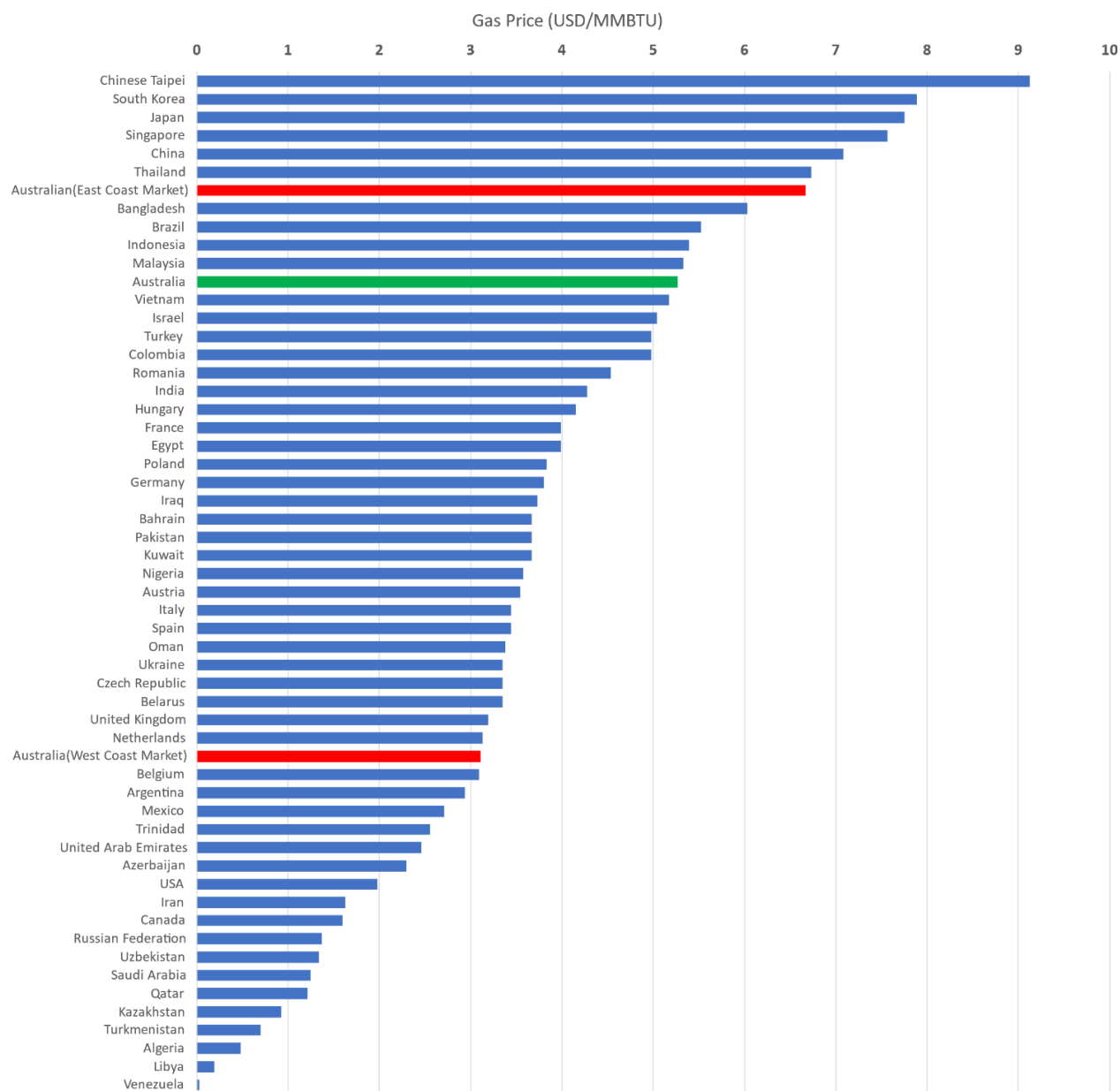
The Extent of Price Gouging of Domestic Consumers by the East Australian Gas Industry

The ACCC’s gas price inquiry reports are all based on the simple premise that eastern Australian gas consumers are paying too much for gas.

The IGU report gives us a useful starting point to determine the extent of the price gouging that occurs to the detriment of eastern Australian gas consumers.

IEEFA has split the Australian gas market into the expensive eastern market and the more reasonably priced western market (see Figure 2).

Figure 2: International Gas Union Price Survey With the Australian Market Broken Down



Source: International Gas Union, AEMO, ACCC.

Eastern Australia Is the Seventh Most Expensive Market in the World Out of the 54 Countries Surveyed

Eastern Australia is a major exporter of LNG. Such is the plentiful supply of gas in eastern Australia that 70% of the gas produced is exported.²

² AEMO. Gas Statement of Opportunities 2021.

Of the major exporters, eastern Australian wholesale contract prices are:

- Over five and a half times those of Qatar, the second largest exporter of LNG
- Over three times the price of gas in the USA
- Nearly five times the price of gas in the Russian Federation.

Eastern Australian prices for wholesale contract gas are only 6% below those of Australia's second largest customer, China. This is despite the fact that to liquefy gas, 9% is burnt in cooling the gas down for shipping³ and a further 2-6% of the gas is lost in shipping. Total losses are approximately 13% of the gas that enters an LNG facility before the customer takes delivery.

Liquefaction facilities are very expensive to build. Prices in eastern Australia should be a fraction of the prices in customer countries, as is the case in countries and regions which are also major gas and LNG exporters.

Prices in eastern Australia are over twice what gas consumers pay in West Australia. Both regions are swimming in gas and are, in fact, in the same country. That one side of Australia has domestic gas prices over twice the price of the other side of the country is a total policy failure.

With globally uncompetitive domestic gas prices, it is little wonder that gas consumption is plummeting in eastern Australia. Far from stimulating investment in gas consumption, government policy is stimulating a gas-fired recession.

Effects of High Gas Prices on Gas Consumption in Eastern Australia

The nose bleed levels of gas prices in eastern Australia are leading to large declines in gas usage in two out of the three major sectors of demand. Gas-powered electricity generation (GPG) and industrial usage have fallen markedly in recent years and have ensured that overall gas consumption is down 23% since 2014.

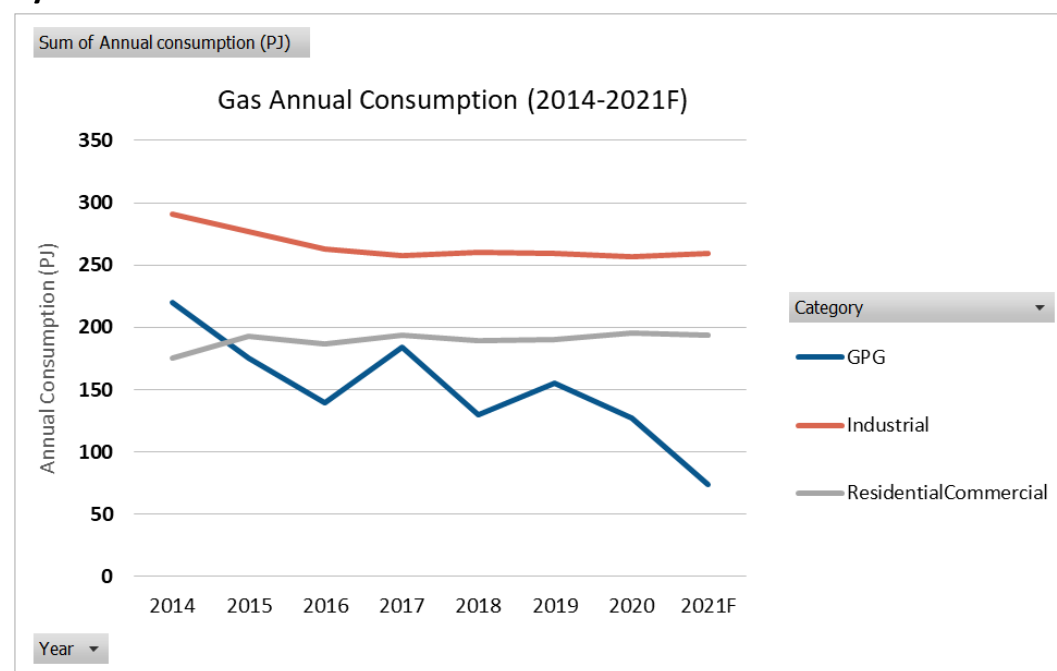
³ Department of Industry. [Australian Energy Statistics 2020](#). Page 9.

Table 1: Gas Consumption in Eastern Australia Since 2014

Sector / % Change	Percentage Change (2014-2021F)
GPG	- 67%
Residential & Commercial	11%
Industrial	- 11%
Total Consumption	- 23%

Source: AEMO.

Figure 3: The Breakup of Annual Gas Consumption in Eastern Australia by Sector



Source: AEMO.

Gas-powered Generation's Competitiveness Is Declining

On 7 July 2021, AGL Energy announced that it will be mothballing one of its Torrens Island gas generators in the eastern gas market in a clear sign that gas baseload plants are struggling to compete in a transitioning energy system.

AGL Energy will mothball one of its four units at the Torrens B gas generator in South Australia, highlighting gas generators are struggling in the face of the rapid

transition to wind and solar.⁴ The mothballing of the 200 megawatt (MW) unit follows on from the closure of Torrens A.

The result of the decline in competitiveness of gas-powered generation in the eastern Australian national electricity market (NEM) has been a decline in gas usage for electricity of a staggering 67% since 2014. Far from being a transition fuel, gas is a fuel transitioning out of the energy system.

Industrial Consumption

Industrial consumption of gas has declined by a more modest 11% since 2014 in eastern Australia. Industry will continue to use globally uncompetitive gas until such time as their plants need a major refit or they have to close due to age.

With such uncompetitive prices, we cannot expect new investment or re-investment into new gas intensive manufacturing in eastern Australia. IEEFA expects that the decline in gas usage in industry will be characterised by large falls followed by stabilisation.

Residential and Commercial Consumption

Residential and commercial gas consumption is set to fall as the combination of gas being an uneconomic fuel combines with government policy and safety concerns to lower consumption.

Gas usage in the home was taken up when gas was cheap and plentiful. Gas is no longer cheap and there are now government sponsored programs to phase out the use of gas in the home in Victoria⁵ and the ACT⁶.

Gas use in residential and commercial applications can largely be substituted for cheaper electrical heating in the form of air conditioners, induction cooking and heat pumps for hot water.^{7 8}

On the AGL website⁹, the company states that heating homes with heat pumps is more efficient than gas and can save the energy consumer money. In the section titled “Why heat pumps are better than their gas counterparts”, AGL states:

More efficient

⁴ Renew Economy. [Decline of baseload: AGL mothballs gas unit as it prepares first big battery](#). 7 July 2021.

⁵ Victorian Government. [Victoria’s Household Energy Savings Package](#).

⁶ Renew Economy. [ACT to phase out gas as it launches next stage to zero carbon strategy](#). 19 September 2019.

⁷ Melbourne Energy Institute. [Switching off gas - An examination of declining gas demand in Eastern Australia](#). 26 August 2015.

⁸ Environment Victoria. [A Gas-free recovery? New report shows how phasing out gas will benefit all Victorians](#). 3 June 2020.

⁹ [AGL website](#).

Because they use electricity to move hot or cold air from one place to another, rather than to generate it, heat pumps can deliver up to 10-15 times as much energy as they use. In fact, premium heat pumps can heat up a room at 600% efficiency, while gas heaters are around the 50% to 95% mark.

Cost less to run

Because they use less energy to run, they're also better for your wallet. Although they may be more expensive to install, they can provide significant savings in the long run.

According to a 2015 Melbourne Energy Institute report, households in Canberra could save \$1,733 per year and those in Melbourne \$658 per year in heating costs just by switching off their gas and using reverse-cycle air conditioners.

Switching from gas to heat pumps to heat water can also lead to significant savings, not only because they're more efficient. Heat-pump water heaters act as batteries, so you access electricity when it's cheaper, and store it for later.

AGL also states¹⁰ that heat pumps are not only more efficient and cheaper than gas, they are also safer:

Safer than gas

With heat pumps, you don't need to worry about house fires or filling your home with dangerous fumes, unlike some gas heaters.

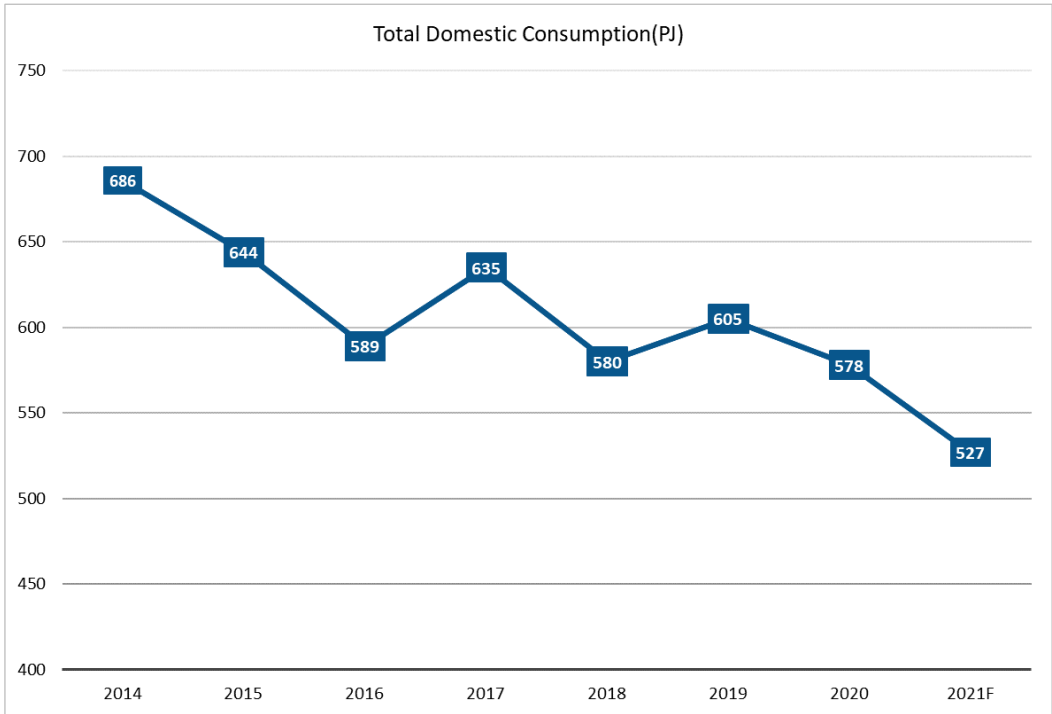
Government programs to wean the domestic consumer off gas combined with increased consumer awareness of the dangers of using gas in the residential setting will see gas demand fall in the residential and commercial sector in the future.

Total Consumption of Gas in Eastern Australia

The result of the decline of gas as a competitive source of energy in eastern Australia is that gas consumption has fallen 23% since 2014. Further falls into the future are assured as globally uncompetitive gas prices see gas continue to decline as a fuel source.

¹⁰ Ibid.

Figure 4: Total Domestic Consumption in Eastern Australia



Source: AEMO.

About IEEFA

The Institute for Energy Economics and Financial Analysis (IEEFA) examines issues related to energy markets, trends and policies. The Institute's mission is to accelerate the transition to a diverse, sustainable and profitable energy economy. www.ieefa.org

About the Author

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