

Find out more about...

Natural gas

Did you know?



250B

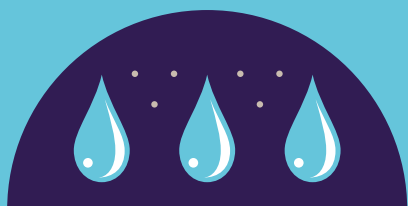
Australia's oil, gas and energy industry creates over 100,000 Australian jobs and has contributed more than \$250 billion to the Australian economy.



Natural gas powers 40% of Australia's manufacturing industry.



Natural gas plays an essential role in reducing global carbon emissions.



If Australia's forecast 85 million tonnes of LNG was used to replace coal-fired power, it would reduce carbon emissions by 300 million tonnes per year. This is more than 50% of Australia's total annual greenhouse gas emissions.



More than 50% of Australian homes rely on natural gas for heating, cooking or hot water.



21%

Since 2005, the USA has reduced electricity sector carbon emissions by 21% by switching from coal to gas and renewables in power generation.¹

+ Natural gas is 50% cleaner than coal and has a critical role to play in Australia's transition to a clean economy.

Santos



What is natural gas?

Natural gas is an abundant Australian energy resource which has been used in our country for over 100 years. It is a naturally occurring compound made up of mainly methane. Odourless and colourless, it is found in different types of rocks, including sandstones, coal seams and shale.

Natural gas is part of the clean energy solution. It has the lowest carbon intensity among fossil fuels, emitting less carbon dioxide (CO₂) per unit of energy generated. It burns cleanly and efficiently, with very few emissions.

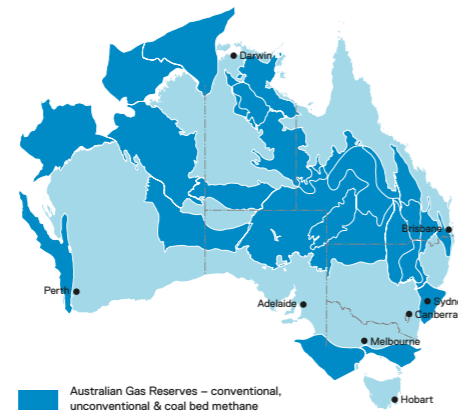
As Australia looks for ways to reduce our emissions, natural gas will be seen as a 'transition' fuel that supports the increasing use of renewable energy. It is an ideal partner for renewable energy sources like solar and wind power, ensuring enhanced and consistent energy reliability for when the sun does not shine or the wind does not blow.



Where is natural gas found?

Australia has 17 significant production locations for natural gas and oil², and enough natural gas reserves to power our nation for hundreds of years.³

Australian natural gas reserves



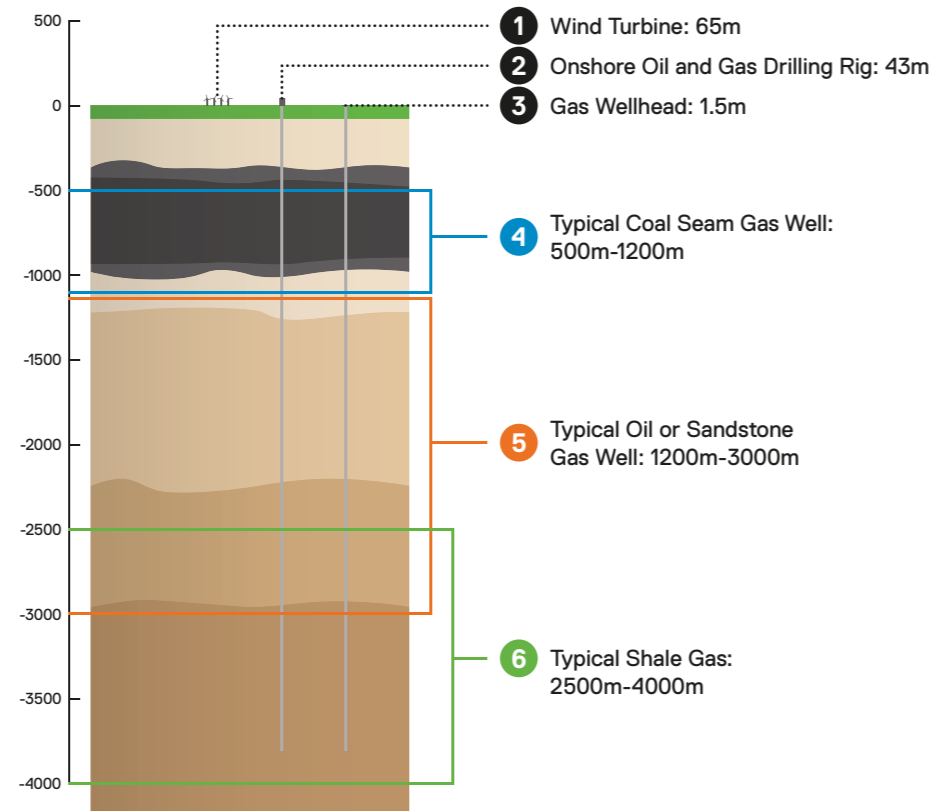
Natural gas production occurs in:

- + northern South Australia
- + inland Queensland
- + Bass Strait
- + offshore Western Australia
- + Timor Sea

Methane – the main ingredient of natural gas – can be found both in coal seams between 500 and 1,200 metres below the surface, and in sandstone and shale layers that lie up to 4 kilometres underground. It's a naturally occurring and abundant resource formed over millions of years through the decomposition and compression of prehistoric animal and plant matter.

Methane is extracted by securely drilling into seams of coal, sandstone or shale. Different techniques can be used – including horizontal drilling and hydraulic fracturing – or 'fracking' – to ensure that the natural gas flows freely and can be obtained efficiently.

Geology of natural gas⁴



Benefits of natural gas

Today, more than 50% of Australian homes rely on natural gas for cooking and heating.⁵ As an energy source, natural gas is also helping to power up to 40% of our manufacturing industry's needs.⁶

Products like glass, steel, plastics, paint, fertiliser and fabric all rely on natural gas by-products. For instance, the natural gas Santos supplies is a key ingredient in plastics used in everything from water tanks and stadium seats to plastic wrap and milk bottles.

The industry makes a significant contribution to the economy creating over 100,000 Australian jobs and has contributed \$250 billion to the Australian economy.⁷

Did you know?

- + If every truck, digger, bus, ship and train went gas-powered, it would save \$1.3 billion in fuel costs and cut 1.7 million tonnes of CO₂ emissions.⁸
- + Australia has enough natural gas reserves to power our nation for hundreds of years.
- + Natural gas, when used for power generation, is 50% less emissions intensive than coal.⁹



An Australian custodian of natural gas

Throughout our history, Santos has invested to help Australia become a leading producer of natural gas, creating thousands of local jobs in the process.

From heating your home, to firing your barbecue, to fuelling your bus, Santos has been helping to power our country for over 50 years.

The natural gas Santos produces is reliable and cost-effective.

Natural gas has been safely extracted from coal seams for more than 100 years and Santos continues to ensure the highest environmental standards across all of our operations.



Natural gas - part of a Clean Energy Solution

Australia can't afford to say no to a clean, reliable and cost-effective source of power. If we are going to successfully transition to a clean economy, natural gas must be part of the solution.

We support limiting global temperature rises to less than 2 degrees Celsius in line with the Paris Agreement - also known as the 450 Scenario.

Our natural gas portfolio strategically aligns with the transition to a low carbon economy.

Australia's future depends on a reliable and affordable supply of natural gas. Santos is proud to play our part in securing Australia's economic, environmental and energy security future for generations to come.



✚ Industry references

1. US Energy Information Administration (EIA), 2017
2. Australian Energy Resource Assessment, Department of Industry and Science, 2014
3. <http://www.appea.com.au/oil-gas-explained/oil-and-gas/what-is-natural-gas/>
4. <http://www.appea.com.au/oil-gas-explained/resources/how-are-oil-and-gas-formed/>
5. ABS, Energy Use and Conservation, March 2014
6. Energy in Australia 2012, Bureau of Resources and Energy Economics
7. Office of the Chief Economist, Australian Industry Report 2015
8. McKinsey & Company, The role of natural gas in Australia's future energy mix, June 2016
9. APPEA, How natural gas can minimise greenhouse emissions, 2016

Interested in learning more about natural gas?

Visit santos.com for more fact sheets on a wide range of gas-related topics.

Santos – An Australian Energy Pioneer

We have safely and sustainably discovered, developed and delivered natural gas to the people of Australia and Asia for more than 60 years.

As an Australian owned and operated business, we work in partnership with local communities, governments and our business partners to make natural gas an affordable and reliable energy solution for all Australians.



Registered and Head Office
Ground Floor, Santos Centre
60 Flinders Street
Adelaide South Australia 5000

GPO Box 2455
Adelaide South Australia 5001

Telephone: 61 8 8116 5000
Facsimile: 61 8 8116 5050
www.santos.com
Email Santos.general.enquiries@santos.com

Santos