

Explore Australia

Australia has one of the most resilient economies in the Organisation for Economic Co-operation and Development (OECD). With 25 years of consecutive annual economic growth, Australia is the world's third wealthiest country and has seen remarkably stable and consistent improvements in income levels.

Australia is an attractive investment location with abundant energy resources for development and export, a stable business environment with active participation by some of the largest multinational companies in the world, close proximity to the major demand markets of Asia and access to a highly skilled workforce and innovative technologies.

With a Gross Domestic Product (GDP) of A\$1.7 trillion, Australia is the 13th largest economy in the world and the 4th largest in the Asia region. Australia has enjoyed many years of uninterrupted economic growth, including during the global financial crisis of 2008. Since a brief recession in 1991, the Australian economy has experienced an average GDP growth of 3.3 per cent per annum. Its forecast economic growth rate between 2017 and 2021, is the highest among the advanced economies at 2.9 per cent.

The Australian economy has continued to prove its resilience throughout the global financial crisis and beyond. Sound macroeconomic policies and structural reform during this time increased Australia's responsiveness to shifts in the global economy and enabled Australia to better withstand global economic pressures to maintain strong economic fundamentals. Australia's strong credit rating and impressive economic performance over the past decade has been the envy of many economies in the world. Australia remains one of only ten countries rated AAA with a stable outlook by three major international credit rating agencies, Moody's, Standard & Poor's and Fitch.

Over the past five years, Australia has experienced strong GDP growth of 2.7 per cent and is forecast to reach 3.6 per cent over the next five years. Production and export volumes of key commodities will increase over the next few years as a result of a majority of projects moving from the construction phase to the production phase.

Australia has been rated the fifth freest economy in the world by The Wall Street Journal and The Heritage Foundation *2016 Index of Economic Freedom*. The index tracks the progress of economic freedom around the globe and provides evidence of dynamic gains from greater economic freedom. From 186 economies, Australia ranks fifth behind Hong Kong, Singapore, New Zealand and Switzerland. The survey states that Australia continues to set the standard for clean, corruption-free government and benefits significantly from its transparent and efficient business environment and open-market policies.

Free Trade Agreements

Australia is building on its position in the Asia-Pacific region and has established a network of Free Trade Agreements (FTAs) with key trading partners in the region. Australia has ten FTAs currently in force with New Zealand, Singapore, Thailand, US, Chile, the Association of South East Asian Nations (ASEAN) (with New Zealand), Malaysia, Korea, Japan, and China. These FTAs cover over 65 per cent of Australia's two-way trade in goods and services. China accounts for just under 23 per cent of Australia's two-way trade in goods and services.

Australia has a further three FTAs that are signed but not yet in force, including a bilateral agreement with Peru, and regional agreements with countries covered by the Pacific Agreement on Closer Economic Relations (PACER) Plus, and the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (TPP-11).

Australia is engaged in five current FTA negotiations - bilateral negotiations with Indonesia, India and Hong Kong, and regional negotiations with the Gulf Cooperation Council, and with the ASEAN-led Regional Comprehensive Economic Partnership (RCEP) Agreement (ASEAN, Australia, China, Japan, Korea, India, and New Zealand). Australia is also engaged in negotiating the Environmental Goods Agreement (EGA) and the Trade in Services Agreement (TiSA).

General facts about Australia

Area	<i>13 590 000 square kilometre land area – including Australian Antarctic Territory of 5 900 000 square kilometres</i>
Offshore marine jurisdiction	<i>14 620 000 square kilometre marine area – including the Exclusive Economic Zone, Territorial Sea and Extended Continental Shelf</i>
Population	<i>24.0 million</i>
Official language	<i>English</i>
Capital	<i>Canberra – population 0.43 million</i>
Main cities	<i>Sydney – 5.0 million, Melbourne – 4.7 million, Brisbane - 2.4 million, Perth - 2.0 million, Adelaide - 1.3 million, Hobart - 0.23 million, Darwin - 0.15 million</i>
System of Government	<p><i>Federation (Commonwealth) of:</i></p> <ul style="list-style-type: none"> <i>• Six states – New South Wales, Queensland, South Australia, Tasmania, Victoria and Western Australia.</i> <i>• Three mainland territories – the Northern Territory, the Australian Capital Territory and the Jervis Bay Territory.</i> <i>• Seven external territories – Ashmore and Cartier Islands, Australian Antarctic Territory, Christmas Island, Cocos (Keeling) Islands, Coral Sea Islands Territory, Heard and McDonald Islands and Norfolk Island.</i> <p><i>Parliamentary democracy based on Westminster system, Federal Parliament consisting of House of Representatives and Senate.</i></p>

Why choose Australia?

The probability of finding a new petroleum province in Australian waters remains high. Australia has more than 14.62 million square kilometres of seabed territory, making it one of the top three largest marine jurisdictions in the world along with the United States of America and France. Australia is custodian to around four per cent of the world's total seabed, an area with significant untapped exploration potential.

The first Australian exploration permit was granted in 1959 in the Gippsland Basin. As of May 2018, there are currently 145 offshore exploration permits, 93 retention leases and 93 production licences. From the first oil and gas discoveries in Bass Strait, the North West Shelf and the Timor Sea through to more recent discoveries in the Roebuck, Carnarvon and Browse basins, there is no doubt that offshore Australia is one of the world's most highly prospective areas for petroleum.

Australia is a gas-rich nation. According to the *Australian Energy Resources Assessment*, around 95 per cent of Australia's known conventional natural gas resources are located in the Carnarvon, Browse and Bonaparte basins off the north-west coast of Australia. Known gas resources are also located in south-west, south-east and central Australia, along with large coal seam gas resources in the coal basins of Queensland and New South Wales and the potential for shale and tight gas resources in South Australia, Western Australia and the Northern Territory. Despite this, much of the continent and its offshore areas remain underexplored, and in some areas unexplored, with over 40 onshore and offshore basins awaiting in-depth exploration to determine their full potential.

Australia's geographic location ensures it is well placed to meet the rapidly expanding energy needs of the Asia-Pacific region. The strong consumption growth of oil in non-OECD markets provides the economic drivers for ongoing investment in exploration in Australia. Increased demand for energy with the industrialisation of China, India and other emerging Asian economies underpins these positive market conditions.

Some attributes that make Australia an attractive location for offshore oil and gas exploration include:

- The regular release of new exploration acreage covering a range of regions from frontier to mature.
- Access to high quality geoscientific data and analysis at low or no cost.
- Continued government support of pre-competitive geoscientific exploration, data acquisition and analysis.
- A free market philosophy which welcomes foreign investment – Australia has no mandatory local equity requirements and no government-owned petroleum companies.
- Close proximity to markets in the growing economies of the Asia-Pacific.
- An attractive policy and legal framework for oil and gas development, conducive to investment by companies of all sizes.
- Security of title with the right to retain and/or develop a discovery, subject to meeting the specified terms of a retention lease or a production licence.
- Transparent and practical regulatory requirements covering all stages of petroleum operations.
- Expanding physical infrastructure, sophisticated technical and services support, a highly educated workforce and pool of skilled petroleum professionals.
- An internationally competitive profit-based tax system.
- Government assistance with project facilitation, including fast-tracking of approvals processes for declared major projects.
- An open and competitive economy, including deregulated banking and foreign exchange arrangements, a sophisticated capital market and a good record of industrial harmony.

Australia, a resource rich nation with further growth potential

Australia has an enviable history in the successful development of its abundant natural resources and continues to be a premier destination for foreign investment. According to the Department of Industry, Innovation and Science's Office of the Chief Economist, Australia's resource and energy export earnings are forecast to reach an all-time high of \$215 billion in 2016-17 and 2017-18. In real terms, this represents a 32 per cent growth on 2015-16.

LNG exports are expected to contribute to growth in Australia's resources and energy export earnings. Australia's LNG exports are projected to more than double over the next three years, rising from 37 million tonnes in 2015-16 to 76 million tonnes in 2018-19. Strong growth in Australia's LNG exports will be underpinned by the completion of the three LNG projects still under construction, which will bring total export capacity to 87 million tonnes. LNG is expected to overtake metallurgical coal as Australia's second largest resources and energy export in 2017-18.

The value of Australia's crude oil and condensate exports is forecast to increase to \$8.8 billion in 2017-18, as condensate output from new offshore LNG projects ramps up.

Although Australia produces oil from five offshore basins (the Northern Carnarvon, Bonaparte and Perth basins offshore Western Australia and the Gippsland and Bass basins off south-eastern Australia), the nation needs to import about 60 per cent of its crude oil demand. Therefore, the Australian Government supports the industry's exploration efforts by access to a wealth of open file data and by a transparent and efficient regulatory regime.

Key petroleum statistics

	2016-17	2017-18 forecast	2018-19 projection	2019-20 projection	2020-21 projection	2021-22 projection	2022-23 projection
Crude and Condensate Export Volume (kb/d)	221	229	301	345	339	321	311
LPG export volume (kb/d)	38	46	93	87	63	53	51
Natural gas production (bcm)	105.3	122.8	140.2	141.0	140.8	142.9	144.2
LNG export volume (mt)	52.1	61.6	74.1	76.0	77.0	78.0	78.9
Refined products - excludes LPG exports (kb/d)	18	13	9	9	9	9	9

Source: Department of Industry, Innovation and Science, *Resources and Energy Quarterly*, March 2018

Australia's domestic gas market

The Australian domestic gas industry has strong growth potential, paralleling growth in the industrial, minerals processing and electricity generation sectors.

In 2016-17, Australia gas production was 105.3 billion cubic metres (bcm), an increase of 17 bcm on the year earlier. Australia's gas production is projected to increase at an average annual rate of 15 per cent in the two years to 2018-19, with gas production projected to reach to 140.2 bcm.

Over the last 20 years, Australia's domestic natural gas industry has grown from a relatively small base to being the third most significant domestic energy source after coal and oil.

Domestic gas market reform over the past decade has increased transparency and competition in the sector, and brought industry regulation under the national energy framework, in line with electricity. Former Ministerial Council on Energy initiatives, such as the National Gas Law and National Gas Rules, National Gas Market Bulletin Board and the Short Term Trading Market for gas, have provided a framework for greater transparency and promoted the use of natural gas for domestic consumption across Australia. Recent initiatives of the Council of Australian Governments Energy Council (COAG Energy Council), such as the establishment of a physical gas supply hub at Wallumbilla in Queensland and the commitment to establish another physical hub at Moomba in South Australia, provide new opportunities for wholesale gas trading and enhanced price discovery.

Significant investment in the expansion and integration of Australia's domestic gas transmission and distribution network in recent years, particularly in south-eastern Australia, has facilitated growth in established gas markets, linked gas supplies with LNG facilities in Queensland and introduced gas into new regional centres. Major transmission pipelines in eastern Australia have been re-engineered for bidirectional flows, allowing gas flows to rapidly respond to changes in the supply–demand balance. This is enhancing basin-on-basin competition for the supply of gas that will be beneficial to gas consumers while also encouraging the development of new industries and increasing opportunities for suppliers to commercialise gas discoveries.

New offshore domestic gas projects are currently under development in Western Australia and in the Gippsland and Otway Basins off southern Victoria. In addition, there are a number of gas pipeline projects underway that will further integrate the pipeline network and enable gas from new upstream developments to be transported to domestic gas markets as appropriate. Significantly, in November 2015, Jemena was announced as the successful tenderer for the North East Gas Interconnector, now known as the Northern Gas Pipeline, to run from Tennant Creek in the Northern Territory to Mount Isa in Queensland. The pipeline will link the offshore northern Australia Bonaparte Basin and onshore Amadeus and Georgina basins with gas markets in southern and eastern Australia and is expected to be commissioned in late 2018. On 4 December 2015, the COAG Energy Council agreed to a Gas Supply Strategy, to ensure deeper collaboration between the Australian, state and territory governments on sharing science and improving regulation. The government is confident the new Gas Supply Strategy will encourage the development of onshore gas resources, supporting vibrant communities and competitive domestic and export industries.

A detailed Gas Supply Strategy implementation plan was developed in the first half of 2016 in consultation with stakeholders. The COAG Energy Council also communicated its expectations in those areas where it considered industry should be showing greater leadership, collaboration and consultation. On 19 August 2016, the COAG Energy Council (except Victoria) agreed to the Gas Supply Strategy implementation plan. The plan originally comprised of 14 collaborative actions to strengthen cooperation between jurisdictions on onshore gas supply, science and regulatory issues and was amended in August 2017 to insert three additional collaborative actions relating to offshore gas, underground gas storage and communication of information to landholders. Three progress reports on the implementation of the strategy have been released on the COAG Energy Council's website. In January 2018, officials commenced a review to assess the effectiveness of implementation to date and consider any required amendments for a new plan going forward.

On 1 July 2017, the Australian Government introduced the [Australian Domestic Gas Security Mechanism](#) (ADGSM). The objective of the ADGSM is to ensure that there is a sufficient supply of natural gas to meet the forecast needs of Australian gas consumers by requiring, if necessary, LNG projects which are drawing gas from the domestic market to limit exports or find offsetting sources of new gas. The ADGSM is a targeted and temporary measure of last resort. A key feature of the ADGSM is that it provides an opportunity for industry to find a commercial, industry-led solution to avoid potential shortfalls.

On 3 October 2017, the Hon Malcolm Turnbull MP, Prime Minister of Australia, signed the *Heads of Agreement – The Australian East Coast Domestic Gas Supply Commitment* with the east coast LNG exporters to maintain a secure and affordable supply of gas for domestic consumers.

Offshore petroleum exploration

Many of Australia's sedimentary basins remain largely underexplored and have the potential to host significant volumes of hydrocarbons. Only around 20 per cent of Australia's offshore basins are currently covered by petroleum titles. Although exploration activity is primarily focused on finding resources close to existing discoveries to improve the economics of proposed projects, frontier exploration is growing. To encourage exploration in these areas and help reduce exploration uncertainties, the Australian Government has funded a series of precompetitive data acquisition programs that are carried out by Geoscience Australia, aimed at improving the understanding of the petroleum prospectivity and resource potential of frontier basins.

Offshore petroleum development

The Australian petroleum industry is entrepreneurial, innovative and has achieved significant success, demonstrated by the number of recent development projects that are now progressing to production – refer to table below. It is made up of a number of companies, many of whom operate on the international scene. Australia's modern legal framework, petroleum tenement system, effective taxation regime and economic environment explain Australia's consistent high ranking in international investment surveys.

Australia's LNG development projects – as at 1 March 2018

Name/ Type	Investors	Location Basin Plant	Final Investment Decision (FID) and First Gas (FG)	Size	Cost
In operation					
North West Shelf	Woodside (Op16.67%) Shell (16.67%) BP Developments Chevron (16.67%) BHP Billiton (16.67%) MIMI (16.67%) CNOOC (gas and associated liquids 5.3% only)	WA Carnarvon Karratha	Existing FG 1989 (pipeline gas in 1984)	16.9 Mtpa 5 trains	A\$34b
Darwin LNG	ConocoPhillips (56.94%) ENI Australia (10.99%) Santos (11.49%) INPEX (11.38%) JERA (6.13%) Tokyo Gas (3.07 percent)	NT JPDA Darwin	Existing FG 2006	3.7 Mtpa 1 train	The \$1.8bn scheme included the construction of an LNG plant at Wickham Point, Darwin Harbour, and a 502km gas pipeline from Bayu-Undan gas reserve to Darwin.
Pluto LNG	Woodside (Op 90%) Tokyo Gas (5%) Kansai Electric (5%)	WA Carnarvon Karratha	FID 2007 FG 2012	4.3 Mtpa 1 train	A\$14.9b Woodside
Queensland Curtis LNG	Shell (Op, 50% T1, 97.5% T2) CNOOC (50% in T1) Tokyo Gas (2.5% in T2)	QLD Surat Curtis Island, Gladstone	FID Oct 2010 FG Jan 2015	8.5 Mtpa 2 trains	A\$20.4b Shell - formerly BG Group

Gladstone LNG	Santos (Op, 30%), Petronas (27.5%) Total (27.5%) KOGAS (15%)	QLD Bowen and Surat Gladstone	FID Jan 2011 FG Oct 2015	7.8 Mtpa 2 trains	A\$18.5b
Australia-Pacific LNG	Origin Energy (37.5%), ConocoPhillips (37.5%) Sinopec (25%)	QLD Bowen and Surat Gladstone	FID T1 Jul 2011 T2 Jul 2012 FG Jan 2016	9 Mtpa 2 trains	A\$24.7b
Gorgon LNG DomGas	Chevron (Op 47.333%) ExxonMobil (25%) Shell (25%) Osaka Gas (1.25%) Tokyo Gas (1%) JERA (0.417%)	WA Carnarvon Barrow Island	FID 2009 FG Mar 2016	LNG – 15 Mtpa 3 trains Dom gas - 150Tj/d to 300Tj/d	US\$60b
Wheatstone LNG DomGas	Chevron (Op, 64.14%*), Woodside (13%), KUFPEC (13.4%), Kyushu Electric (1.46%), PE Wheatstone part owned by JERA (8%) *Plant. Gas field Chevron (80.17 percent and PEW 10 percent)	WA Carnarvon Onslow	FID Sept 2011 FG Oct -2017	LNG - 8.9 Mtpa 2 trains Dom gas - 200Tj/d	US\$34b
Under construction					
Prelude Floating LNG Condensate	Shell (Op 67.5%) INPEX (17.5%) KOGAS (10%) OPIC (CPC Taiwan) (5%)	WA Browse FLNG	FID May 2011 FG 18	3.5 Mtpa 1 train FLNG	US\$12.6b estimate

Ichthys LNG Condensate	INPEX (Op, 62.245%) Total (30%) CPC Corporation Taiwan (2.625%) Tokyo Gas (1.575%) Osaka Gas (1.2%) Kansai Electric Power (1.2%) Chubu Electric (0.735%) Toho Gas (0.42%)	WA Browse Darwin	FID Jan 2012 FG 2018	8.9 Mtpa 2 trains	Current estimate US\$37.4b INPEX
In planning					
Equus LNG	Western Gas (100%)	WA Carnarvon Karratha	FID not yet taken	~2Tcfa	n/a
Scarborough FLNG	Esso Australia (Op, 50%), BHP Billiton (50%)	WA Carnarvon	FID not yet taken (due by 2020)	(10Tcf)	n/a
Sunrise LNG Condensate	Woodside (Op 33%) ConocoPhillips (30%) Shell (27%) Osaka Gas (10%)	NT/JPDA Bonaparte	FID not yet taken	n/a	n/a
Browse FLNG Condensate	Woodside (Op 30%), Shell (27%), BP (17.33%), MIMI (14.4%), PetroChina (10.67%)	WA Browse FLNG	FID not yet taken	n/a	n/a