2018

KEY STATISTICS

appea

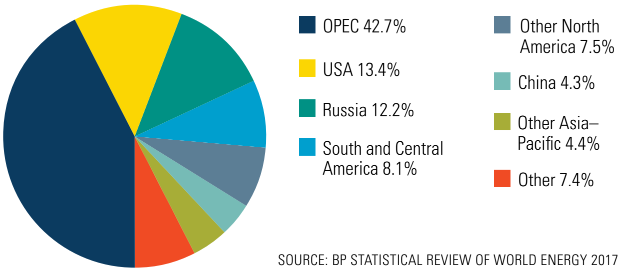
the voice of australia's oil and gas industry

PRODUCED WITH THE ASSISTANCE OF EnergyQuest

2 World supply of oil and LNG

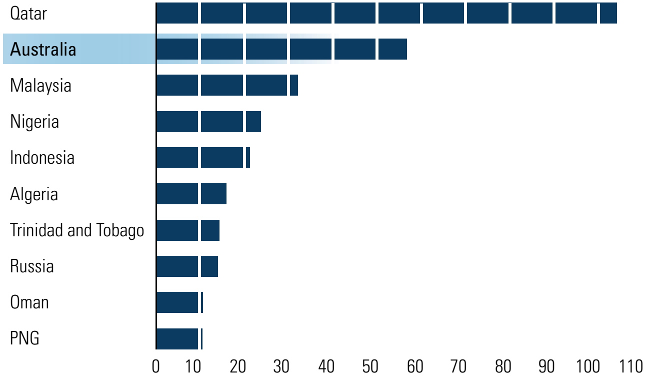
World oil supply averaged 92.2 million barrels a day in 2016, an increase of 0.5% or 0.4 million barrels a day compared to 2015.

Share of world oil supply 2016



SOURCE: BP STATISTICAL REVIEW OF WORLD ENERGY 2017

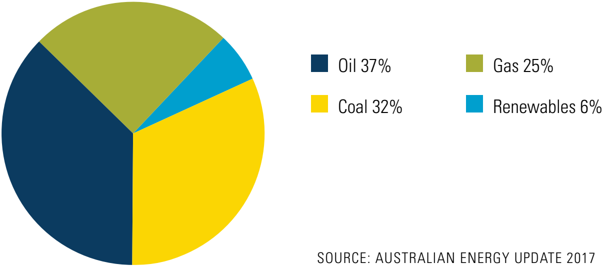
Top 10 LNG exporting countries 2016 (billion cubic metres)



SOURCE: BP STATISTICAL REVIEW OF WORLD ENERGY 2017

In 2015–16, oil remained the largest primary energy source in Australia providing 37% of all energy consumed. Natural gas was a quarter (25%) of primary energy. Renewables maintained their share at 6% of Australia's energy in 2015–16.

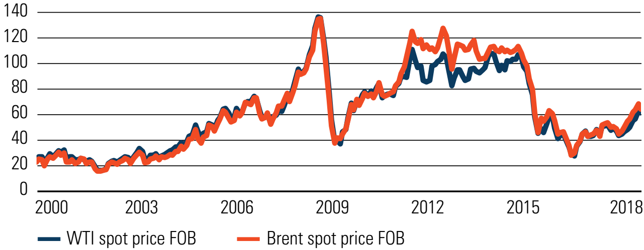
Share of primary energy consumption 2015–16



SOURCE: AUSTRALIAN ENERGY UPDATE 2017

After falling from over US$100 per barrel in 2014 to around US$26 per barrel in January 2016, oil prices somewhat recovered in 2016 and 2017. In 2017, they averaged US$51, mainly due to OPEC production cuts and steady demand growth. The oil price is forecast to average US$58/barrel in 2018.

Oil price (US$ per barrel)

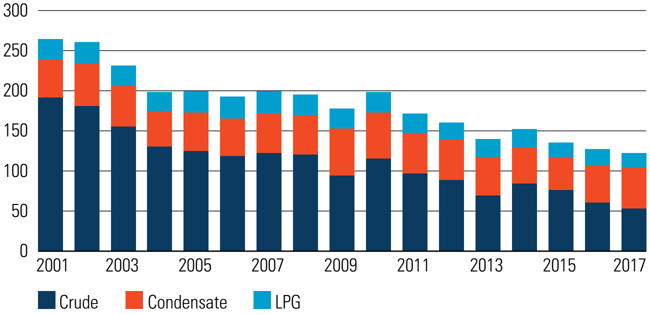


SOURCE: US ENERGY INFORMATION ADMINISTRATION

4 Production—petroleum liquids

Australian petroleum liquids production peaked in 2000 at 287 million barrels and has been generally declining since. In 2017, it fell by 3.4% compared to 2016, to total 122 million barrels, well below half of the peak production level in 2000.

Australian petroleum liquids production (millions of barrels)



SOURCE: APPEA PRODUCTION STATISTICS (UNTIL 2013), ENERGYQUEST (2014 ONWARDS)

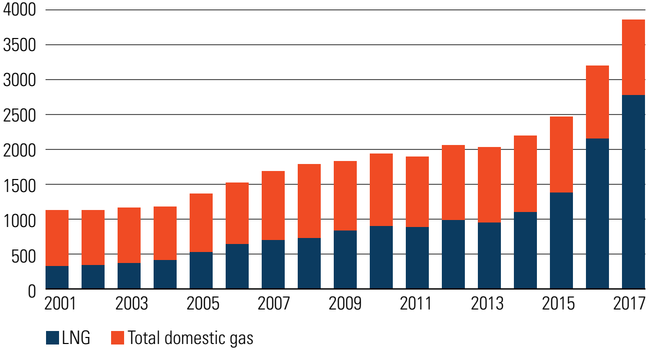
Production of petroleum liquids by state/territory (millions of barrels)

	Crude		**Condensate**		**LPG**	
	2016	**2017**	2016	**2017**	2016	**2017**
New South Wales	–	–	–	–	–	–
Northern Territory	1.2	**1.0**	–	–	–	–
Queensland	–	–	–	–	–	–
South Australia	10.5	**9.6**	1.5	**1.5**	2.2	**2.3**
Tasmania	–	–	0.6	**0.6**	0.6	**0.6**
Victoria	6.4	**4.3**	8.6	**9.1**	10.4	**9.8**
Western Australia	41.8	**38.4**	35.7	**39.4**	6.8	**5.4**
Total	**59.8**	**53.4**	**46.5**	**50.6**	**20.0**	**18.0**

SOURCE: ENERGYQUEST |Note: includes production from Commonwealth Waters adjacent to each state or territory and excludes production from the JPDA.

Australia's gas production (LNG and domestic use) increased by almost 21% in 2017 compared with 2016. It has more than doubled over the last decade.

Total domestic natural gas production and LNG exports (bcf)



SOURCE: APPEA PRODUCTION STATISTICS (UNTIL 2013), ENERGYQUEST (2014 ONWARDS)

Production of natural gas by state/territory (bcf)

	Conventional gas		Natural gas from coal seams		LNG exports	
	2016	**2017**	2016	**2017**	2016	**2017**
New South Wales	–	–	4.5	**4.6**	–	–
Northern Territory	5.1	**7.4**	–	–	–	–
Queensland	2.3	**1.6**	1089.9	**1258.5**	913.5	**1065.1**
South Australia	91.3	**88.9**	–	–	–	–
Tasmania	15.7	**16.0**	–	–	–	–
Victoria	362.6	**382.3**	–	–	–	–
Western Australia	1626.7	**2098.8**	–	–	1243.1	**1712.8**
Total	**2103.7**	**2595.0**	**1094.4**	**1263.1**	**2156.6**	**2777.9**

SOURCE: ENERGYQUEST |Note: includes production from Commonwealth Waters adjacent to each state or territory and excludes production from the JPDA.

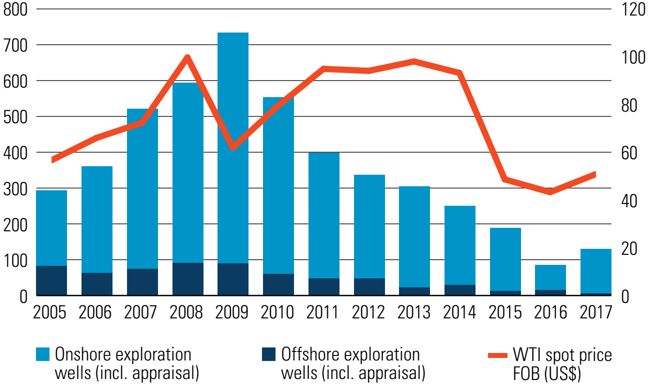
6 Petroleum exploration

The Australian oil and gas industry's long-term growth depends on exploration.

Oil and gas cannot be produced without first locating new resources and these cannot be discovered without drilling wells. Key variables that drive exploration decisions include: available and prospective acreage, capital availability, the costs of exploring, and the ability to commercialise discovered resources.

While 2017 saw some growth in onshore exploration, unfavourable market conditions, regulatory and policy uncertainty and restricted access continue to frustrate explorers. Offshore exploration remains at record lows.

Annual exploration well activity and West Texas intermediate oil price

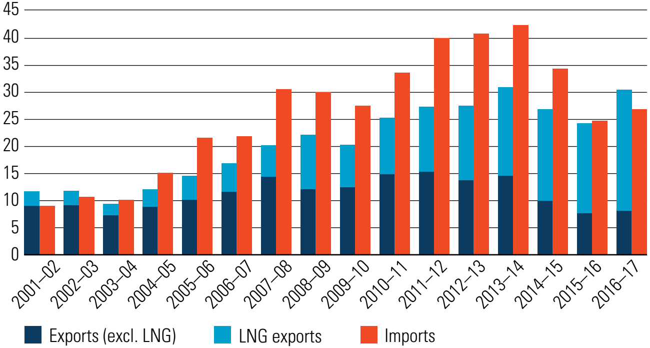


SOURCE: US ENERGY INFORMATION ADMINISTRATION, APPEA

Economic contribution of the industry — trade

Australia imports and exports significant quantities of petroleum and petroleum-related products. In 2016–17, Australia recorded a surplus in the trade of oil and gas for the first time in 13 years. This is primarily due to an increase in LNG exports value of 35% in 2016–17 compared with 2015–16. Australia's oil and gas trade balance is likely to remain in surplus in the near future as LNG exports continue to increase.

Trade in oil, gas and petroleum products ($ billion)



SOURCE: DEPARTMENT OF INDUSTRY, INNOVATION AND SCIENCE

Oil and gas imports and exports 2016–17 ($ billion)

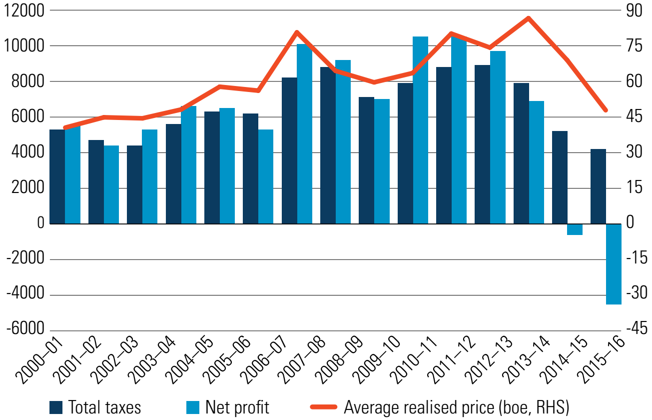
	Exports	Imports
Crude	5.5	8.8
LNG	22.3	–
LPG	0.6	–
Products	0.6	18.1
Bunkers	1.5	–
Total	**30.5**	**26.9**

SOURCE: DEPARTMENT OF INDUSTRY, INNOVATION AND SCIENCE

8 Economic contribution of the industry — taxation

The fiscal framework is a key factor shaping investment decisions in the oil and gas industry. Producers face an array of taxes, charges and fees covering petroleum activities. Fiscal imposts include resource taxes (including the petroleum resource rent tax, petroleum royalties and production excise) and company income tax, as well as a wide variety of other taxes, fees and charges.

Industry taxes paid, net profit and average realised prices ($A/bbl)

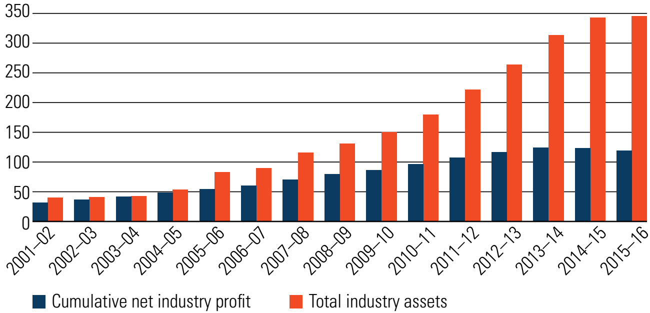


SOURCE: APPEA FINANCIAL SURVEY

Data compiled by APPEA indicates that in the last two years the industry has recorded consecutive losses, yet it continues to pay significant levels of taxation. Total payments to governments averaged around $7.3 billion per year over the last decade, however this was lower in 2015–16 due to low average realised prices and high levels of expenditure.

The Australian oil and gas industry has invested more than $300 billion in the economy over the last decade. Since APPEA's Financial Survey began in the mid-1980s, cumulative investment over the period has been almost three times greater than the industry's cumulative net profit. The investment is now delivering increased production of natural gas.

Industry cumulative profits and investments ($ billion)



SOURCE: APPEA FINANCIAL SURVEY

The oil and gas industry still has over $230 billion worth of projects in the pipeline as at October 2017.

LNG, gas, oil major projects investment pipeline, October 2017

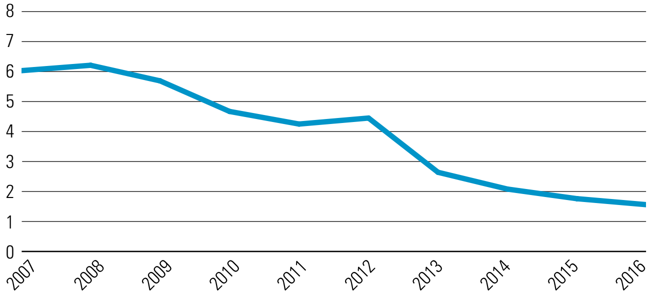
	2016		2017	
	No. of projects	Range A$ billion	No. of projects	Range A$ billion
Publicly announced	4	15.5+	8	26.8+
Feasibility stage	10	42.6+	14	99.4+
Committed	11	169.0	12	107.2+
Completed	3	23.8	7	65.1

SOURCE: DEPARTMENT OF INDUSTRY, INNOVATION AND SCIENCE

10 Safety information

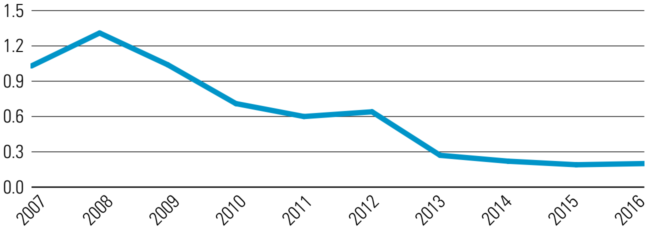
The International Association of Oil and Gas Producers (IOGP) collects safety performance data for various countries. Over the last decade, there has been a significant improvement in the Australian oil and gas industry's safety performance. In that period, the industry has seen many new operations start and production expand significantly.

Total recordable injury frequency rate (per million hours worked)



SOURCE: IOGP

Lost time injury frequency rate (per million hours worked)



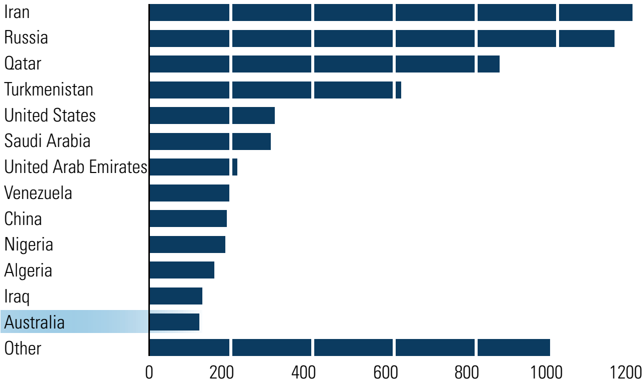
SOURCE: IOGP

Australia's estimated petroleum resources (petajoules)

	Conventional gas	CSG	Tight gas	Shale gas	Total gas	Oil	Condensate	LPG
Reserves	77,253	45,895	39	–	123,187	3,286	7,421	2,633
Contingent resources	108,982	33,555	1,709	12,252	156,498	3,780	9,042	3,324
All identified resources	186,235	79,450	1,748	12,252	279,685	7,066	16,463	5,957
Prospective resources	235,913	6,890	2,622,022	9,338,993	12,203,818	85,483	41,148	–

SOURCE: GEOSCIENCE AUSTRALIA

Proved gas reserves by country 2016 (tcf)



SOURCE: BP STATISTICAL REVIEW OF WORLD ENERGY 2017

Glossary of terms

CSG	coal seam gas
JPDA	Joint Petroleum Development Area zone in the Timor Sea
LNG	liquefied natural gas
LPG	liquefied petroleum gas
bcf	billion cubic feet
mmbbl	million barrels
PJ	petajoules
tcf	trillion cubic feet

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