



# KEY STATISTICS

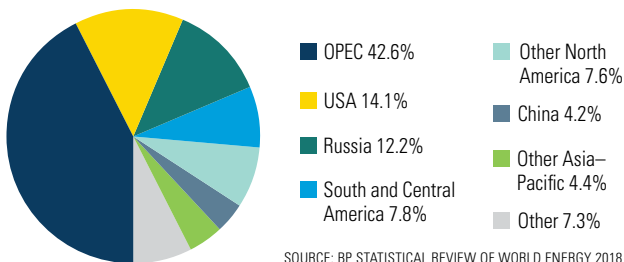
2019



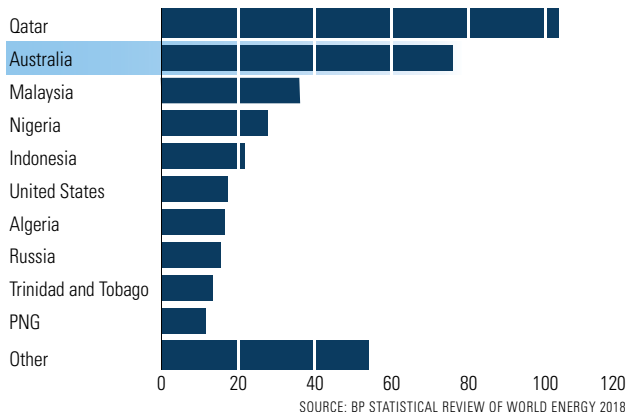
# WORLD SUPPLY OF OIL AND LNG

World oil supply averaged 92.7 million barrels a day in 2017, an increase of 0.7% or 0.6 million barrels a day compared to 2016.

## Share of world oil supply 2017



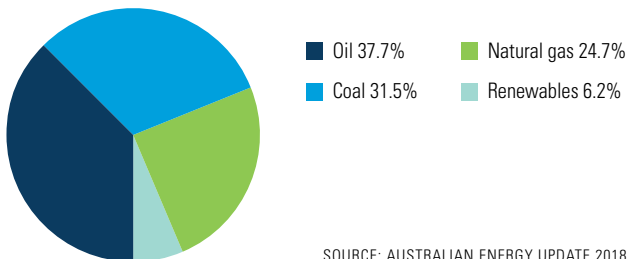
## Top 10 LNG exporting countries 2017 (billion cubic metres)



# ENERGY USE IN AUSTRALIA

In 2016–17, oil was the largest primary energy source in Australia providing nearly 38% of all energy consumed. Natural gas provided almost 25% of primary energy. Renewables accounted for just over 6% of primary energy consumption.

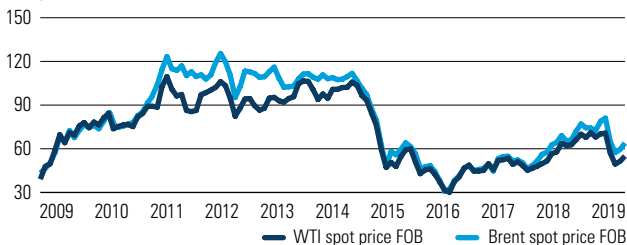
## Share of primary energy consumption 2016–17



SOURCE: AUSTRALIAN ENERGY UPDATE 2018

After falling from over US\$100 per barrel in 2014 to around US\$26 per barrel in January 2016, oil prices partially recovered in 2017 and 2018. The reintroduction of US sanctions on Iran significantly influenced the market in 2018, creating concerns of global market tightness. The average oil price for 2018 was around US\$65, and is expected to be relatively steady in 2019.

## Oil price (US\$ per barrel)

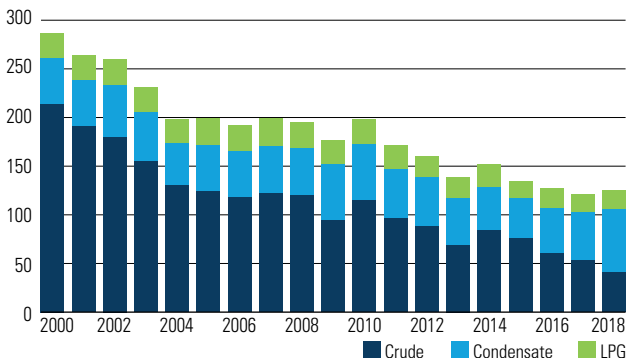


SOURCE: US ENERGY INFORMATION ADMINISTRATION

## AUSTRALIAN PRODUCTION PETROLEUM LIQUIDS

Australian petroleum liquids production peaked in 2000 at 287 million barrels and has been declining since. In 2018 however, production increased by 3.8% compared with 2017, to total 126 million barrels. This was primarily due to increased condensate production from the Ichthys LNG Project.

### 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)

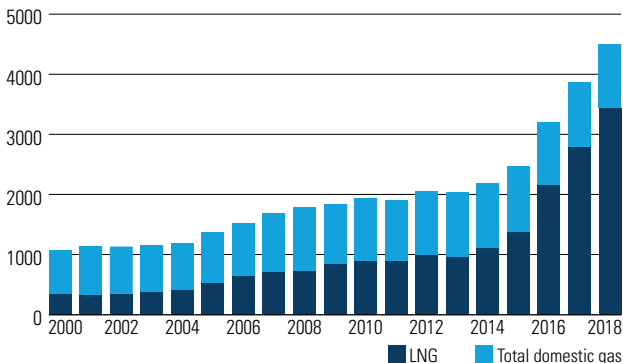
	Crude		Condensate		LPG	
	2017	2018	2017	2018	2017	2018
New South Wales	–	–	–	–	–	–
Northern Territory	0.2	0.2	–	–	–	–
Queensland	0.0	0.0	–	–	–	–
South Australia	9.6	11.0	1.5	1.8	2.2	2.7
Tasmania	–	–	0.6	0.5	0.6	0.6
Victoria	4.3	4.7	9.1	7.3	9.8	9.6
Western Australia	38.5	25.5	39.2	55.3	5.4	6.5
<b>Total</b>	<b>52.7</b>	<b>41.4</b>	<b>50.4</b>	<b>64.9</b>	<b>18.0</b>	<b>19.4</b>

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

## AUSTRALIAN PRODUCTION NATURAL GAS

Australia's natural gas production (LNG and domestic use) increased by 16% in 2018 compared with 2017. Production has more than doubled over the last five years.

### Total domestic natural gas production and LNG exports (billion cubic feet)



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

### Production of natural gas by state/territory (billion cubic feet)

	Conventional gas production		Natural gas from coal seams		LNG exports	
	2017	2018	2017	2018	2017	2018
New South Wales	–	–	5.5	5.0	–	–
Northern Territory	7.4	10.0	–	–	–	–
Queensland	1.7	5.0	1,258.5	1,303.0	1,067.3	1,071.7
South Australia	88.9	94.1	–	–	–	–
Tasmania	16.0	15.5	–	–	–	–
Victoria	396.0	310.9	–	–	–	–
Western Australia	2,098.8	2,752.2	–	–	1,712.8	2,358.9
<b>Total</b>	<b>2,608.8</b>	<b>3,187.7</b>	<b>1,264.0</b>	<b>1,308.1</b>	<b>2,780.1</b>	<b>3,430.6</b>

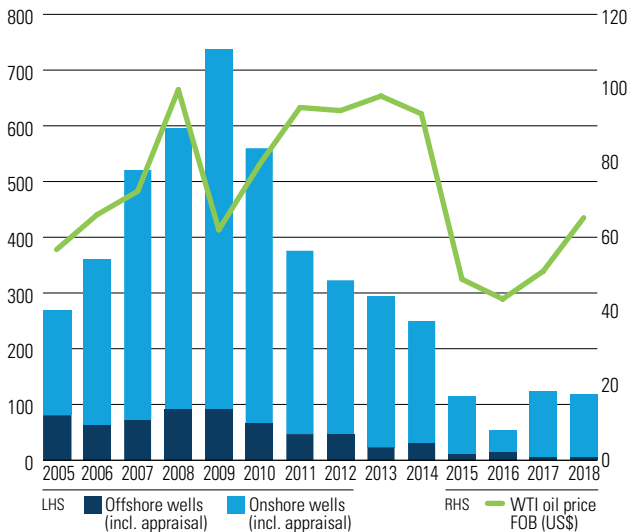
SOURCE: ENERGYQUEST. Note: includes production from Commonwealth waters adjacent to each state or territory and excludes production from the JPDA.

# PETROLEUM EXPLORATION

The long-term growth in the Australian oil and gas industry depends on the level of exploration. Oil and gas cannot be produced without locating new resources and these cannot be discovered without drilling wells. Key variables drive exploration decisions including available and prospective acreage, capital availability, the costs of exploring and the ability to commercialise discovered resources.

The last two years have seen an improvement in onshore exploration but offshore activity remains very low. Unfavourable market conditions, regulatory and policy uncertainty and restricted access continues to frustrate explorers.

## Annual exploration well activity and West Texas intermediate oil price

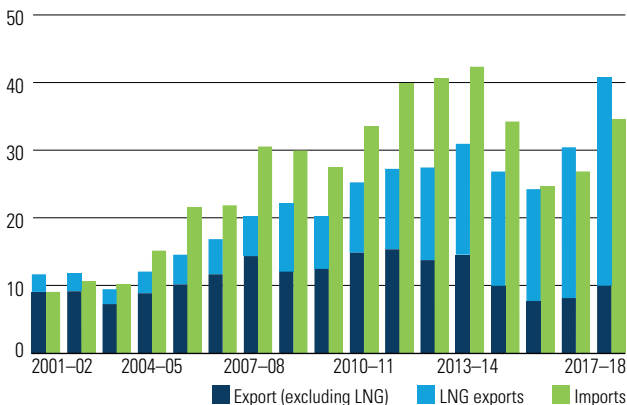


SOURCE: APPEA, US ENERGY INFORMATION ADMINISTRATION

## ECONOMIC CONTRIBUTION TRADE

Australia imports and exports significant quantities of petroleum and petroleum-related products. In 2017–18, Australia recorded a A\$6.3 billion surplus in the trade of oil and gas—the highest surplus in the last 30 years. This is primarily due to a 39% increase in the value of LNG exports. Despite declining oil production, Australia's 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 (A\$ billion)



SOURCE: DEPARTMENT OF INDUSTRY, INNOVATION AND SCIENCE

### Oil and gas imports and exports 2017–18 (A\$ billion)

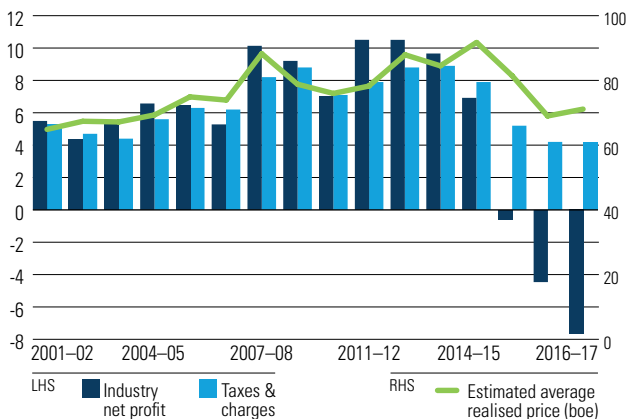
	Exports	Imports
Crude	7.0	11.9
LNG	30.9	–
LPG	0.8	–
Products	0.6	22.7
Bunkers	1.7	–
<b>Total</b>	<b>40.9</b>	<b>34.6</b>

SOURCE: DEPARTMENT OF INDUSTRY, INNOVATION AND SCIENCE

## ECONOMIC CONTRIBUTION TAXATION

The fiscal framework is a key factor shaping investment decisions in the oil and gas industry. Producers are confronted with 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), company income tax and a wide variety of other taxes, fees and charges.

### Taxes paid, profit (before) taxes and average realised price (A\$/bbl)



SOURCE: APPEA FINANCIAL SURVEY

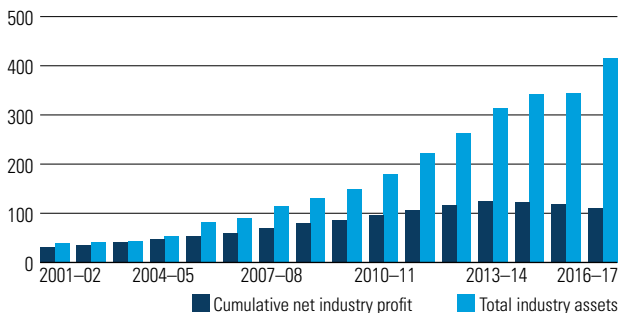
While the industry has recorded consecutive losses, significant levels of taxation continued to be paid. Reflecting low commodity prices and unprecedented spending on new projects, the industry posted a record, net operating loss of A\$7.6 billion in 2016–17, compared with a loss of A\$4.5 billion in 2015–16. The 2016–17 operating loss is the worst result on record. Tax payments continued to be strong, with payments estimated at A\$4.6 billion in 2016–17 (compared with A\$4.2 billion in 2015–16).



# INDUSTRY INVESTMENT

The Australian oil and gas industry has invested more than A\$350 billion over the last decade. Since APPEA's Financial Survey commenced in the mid-1980s, cumulative investment over the period has been almost four times greater than the industry's cumulative net profit. This investment will continue to deliver decades of cleaner energy, economic growth, exports and jobs for Australia.

## Industry cumulative profits and investment (A\$ billion)



SOURCE: APPEA FINANCIAL SURVEY

The oil and gas industry has over A\$75 billion worth of projects in the pipeline as at October 2018.

## LNG, gas, oil major projects investment pipeline (October 2018)

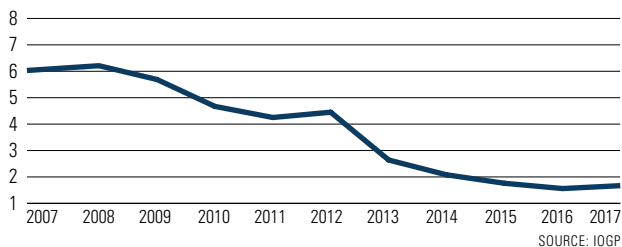
	2017		2018	
	No. of projects	Range \$ billion	No. of projects	Range \$ billion
Publicly announced	8	26.75+	12	28.1+
Feasibility stage	14	44.9+	15	36.0+
Committed	12	107.2	13	10.9
Completed	7	65.1	7	103.5

SOURCE: DEPARTMENT OF INDUSTRY, INNOVATION AND SCIENCE. (The Department has revised project estimates. The new limit for projects in cost estimate is A\$5 billion plus. This has meant a significant downward revision to 2017 numbers and a reduction of total investment pipeline value.)

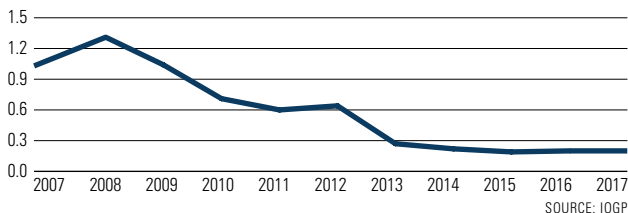
## SAFETY PERFORMANCE

The International Association of Oil & Gas Producers (IOGP) collects global safety performance data from both the onshore and offshore petroleum industry. Over the last decade, there has been significant improvement in the Australian oil and gas industry's safety performance, with the rate of incidents and injuries steadily falling. For 2017, the total recordable injury frequency rate (TRIFR)—the number of recordable injuries (fatalities + lost work day cases + restricted work day cases + medical treatment cases) per million hours worked was 1.67, up slightly (7%) from 2016. The lost time injury frequency rate (LTIFR)—the number of lost time injuries (fatalities + lost work day cases) per million hours worked remained at 0.20, unchanged from 2016.

### TRIFR (per million hours worked)



### LTIFR (per million hours worked)



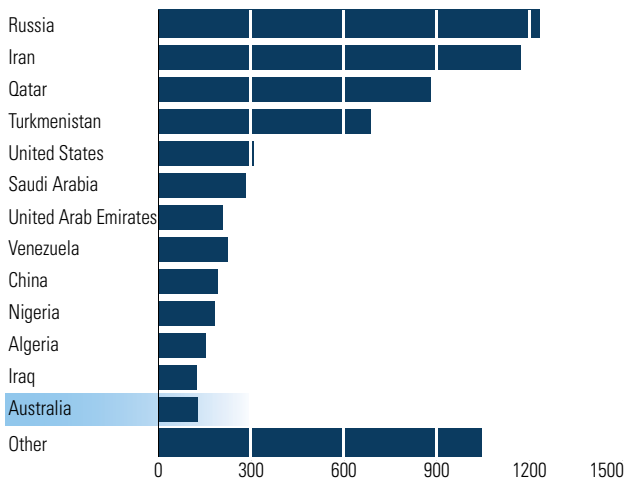
# RESOURCES

## 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	2,650,622	9,577,353	12,470,778	85,483	41,148	–

SOURCE: GEOSCIENCE AUSTRALIA

## Proved gas reserves by country and rank 2017 (trillion cubic feet)



SOURCE: BP STATISTICAL REVIEW OF WORLD ENERGY 2018



## Glossary

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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