



appea

# KEY STATISTICS

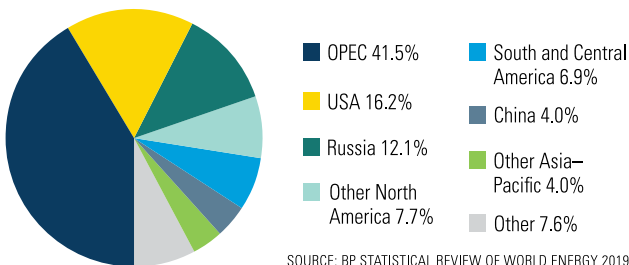
## 2020



# WORLD SUPPLY OF OIL AND LNG

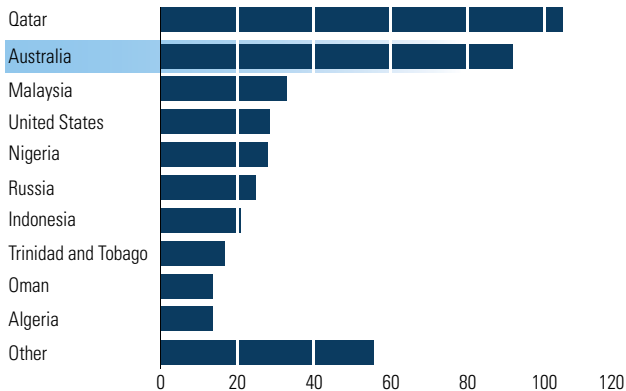
World oil supply averaged 94.7 million barrels a day in 2018, an increase of 2.4% or 2.2 million barrels a day compared to 2017.

## Share of world oil supply 2018



SOURCE: BP STATISTICAL REVIEW OF WORLD ENERGY 2019

## Top 10 LNG exporting countries 2018 (billion cubic metres)

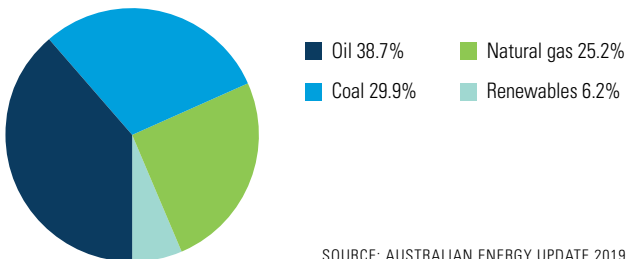


SOURCE: BP STATISTICAL REVIEW OF WORLD ENERGY 2019

# ENERGY USE IN AUSTRALIA

In 2017–18, oil was the largest primary energy source in Australia providing nearly 39% of all energy consumed. Natural gas provided 25% of primary energy. Renewables accounted for just over 6% of Australia's primary energy consumption in 2017–18.

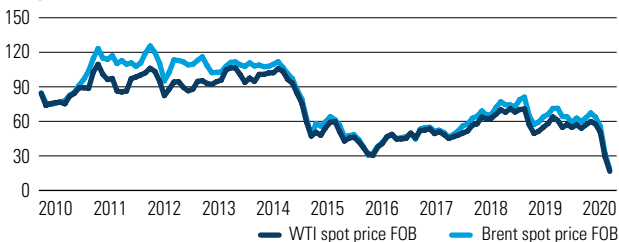
## Share of primary energy consumption 2017–18



SOURCE: AUSTRALIAN ENERGY UPDATE 2019

Since the lows of 2016, oil prices had been steady or rising but plummeted this year as the COVID-19 pandemic reduced demand. On 1 January 2020, the price of Brent crude oil (relevant international oil price marker for Australia) was US\$66 per barrel. By April, the average had declined 72% to \$18.38. For the first time in history, US crude oil (WTI) futures dipped below zero. These are difficult times for the global industry.

## Oil price (US\$ per barrel)

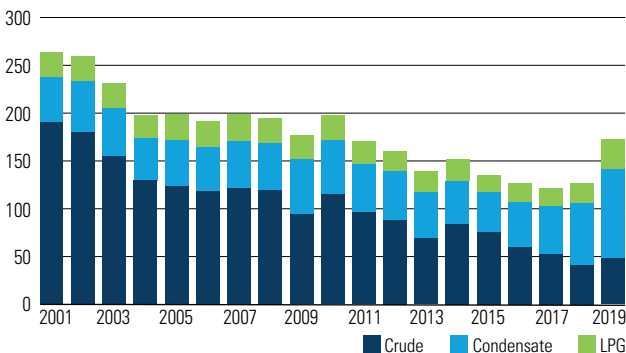


SOURCE: US ENERGY INFORMATION ADMINISTRATION

## AUSTRALIAN PRODUCTION PETROLEUM LIQUIDS

Australian petroleum liquids production rebounded in 2019 to 172 million barrels up 37% as compared to 2018. However, it is still significantly lower than peak production in 2000 at 287 million barrels. The increase in 2019 was primarily due to increased condensate production from the new Australian LNG projects.

### Australian petroleum liquids production (millions of barrels)



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

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

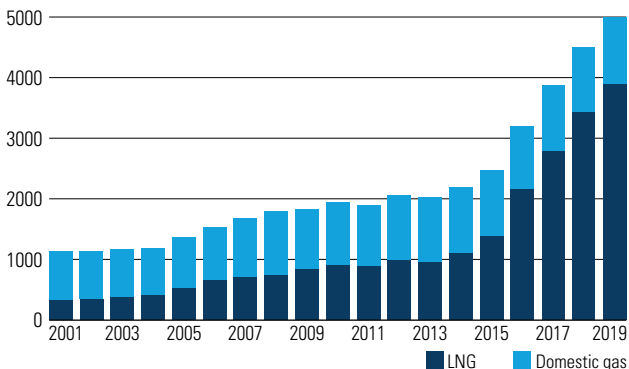
	Crude		Condensate		LPG	
	2018	2019	2018	2019	2018	2019
New South Wales	–	–	–	–	–	–
Northern Territory	0.2	0.1	2.3	20.7	1.1	13.9
Queensland	–	–	–	–	–	–
South Australia	11.0	12.5	1.8	1.8	2.7	2.6
Tasmania	–	–	0.5	0.4	0.6	0.4
Victoria	4.7	3.3	7.3	7.5	9.6	7.8
Western Australia	25.5	31.6	53.0	63.3	5.5	6.1
<b>Total</b>	<b>41.4</b>	<b>47.6</b>	<b>64.9</b>	<b>93.7</b>	<b>19.5</b>	<b>30.9</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 (domestic use and LNG) increased by 11% in 2019 compared with 2018. Production has more than doubled over the last 5 years with double digit growth year-on-year since 2014.

### 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		Coal seam gas		LNG exports	
	2018	2019	2018	2019	2018	2019
New South Wales	–	–	5.0	4.5	–	–
Northern Territory	77.0	450.7	–	–	43.4	393.7
Queensland	5.0	3.8	1,303.0	1,397.4	1,071.4	1,169.3
South Australia	94.2	97.7	–	–	–	–
Tasmania	15.5	10.7	–	–	–	–
Victoria	311.2	314.0	–	–	–	–
Western Australia	2,683.9	2,719.7	–	–	2,315.4	2,327.4
<b>Total</b>	<b>3,186.6</b>	<b>3,596.6</b>	<b>1,308.0</b>	<b>1,401.9</b>	<b>3,430.2</b>	<b>3,890.4</b>

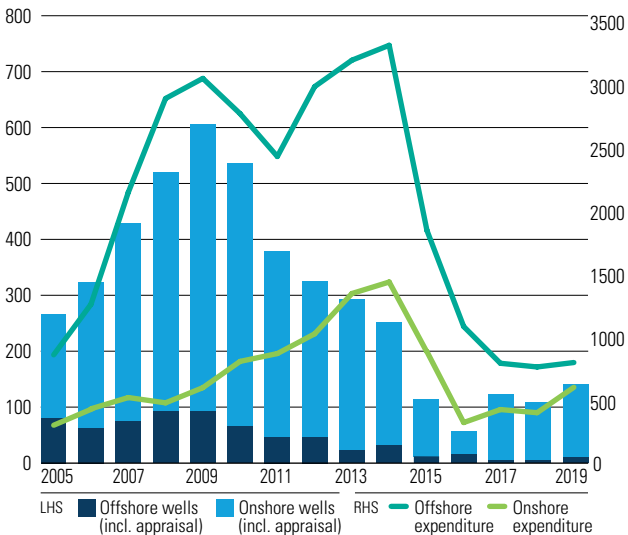
SOURCE: ENERGYQUEST. Note: includes production from Commonwealth waters adjacent to each state or territory and excludes production from the JPDA.

# PETROLEUM EXPLORATION

Oil and gas exploration is vital for Australia's energy security. Sustainable growth in the industry depends on the level of exploration. Oil and gas cannot be produced without first 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.

Exploration statistics up to December 2019 represented an improvement in terms of both onshore and offshore exploration wells drilled but activity remained low compared to the highs of the previous decade.

## Annual exploration well activity and expenditure

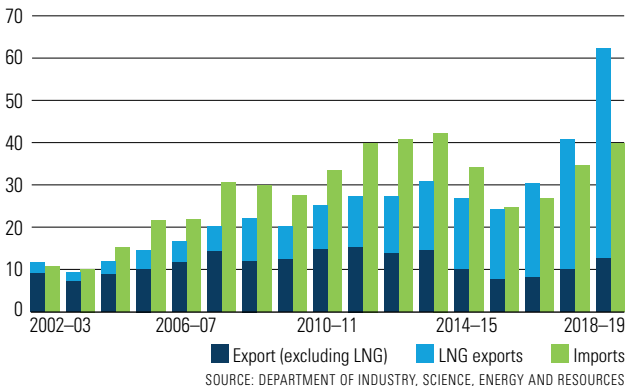


SOURCE: ABS, APPEA

## ECONOMIC CONTRIBUTION TRADE

Australia imports and exports significant quantities of petroleum and petroleum-related products. In 2018–19, Australia recorded a A\$22.5 billion surplus in the trade of oil and gas — the highest surplus in the last 30 years. This is primarily due to a 61% increase in value of LNG exports. The increased exports of LNG have made a significant contribution to Australia’s economic growth over the last few years and have helped maintain economic resilience in the face of COVID-19 related economic challenges.

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



### Oil and gas imports and exports 2018–19 (A\$ billion)

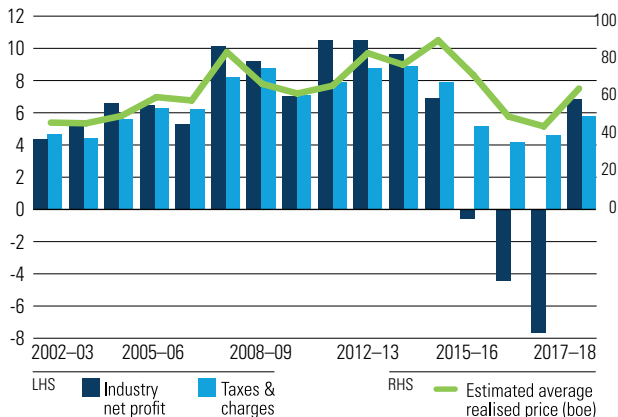
	Exports	Imports
Crude	9.1	13.6
LNG	49.7	–
LPG	1.0	–
Products	0.7	26.3
Bunkers	1.8	–
<b>Total</b>	<b>62.4</b>	<b>39.9</b>

SOURCE: DEPARTMENT OF INDUSTRY, SCIENCE, ENERGY AND RESOURCES

## ECONOMIC CONTRIBUTION TAXATION

A key factor shaping industry investment decisions is the fiscal framework. Producers are confronted with an array of taxes, charges and fees covering petroleum activities. Fiscal imposts include resource taxes (the petroleum resource rent tax, petroleum royalties and production excise), company income tax and a wide variety of other taxes, fees and charges.

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



SOURCE: APPEA FINANCIAL SURVEY

APPEA's 2017–18 Financial Survey—the 31st instalment of the survey of the sector's financial performance—showed the oil and gas industry contributes around \$5.8 billion in tax, rents and royalties.

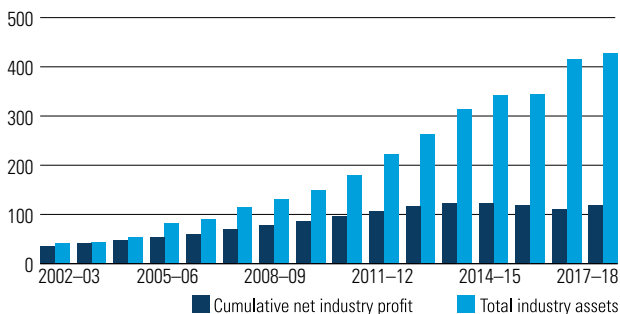
Rebounding from a record operating loss of \$7.6 billion in 2016–17, the 2017–18 survey showed industry recorded an overall profit of \$6.88 billion. This was driven by an increase in oil and gas sales revenue of approximately 61% to \$54.3 billion in 2017–18 on the back of higher production and improvements in the petroleum price.



# INDUSTRY INVESTMENT

The oil and gas industry continues to invest in Australia—more than A\$350 billion over the last decade alone. 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

While COVID-19 has seen projects delayed in the face of challenging market conditions, the oil and gas industry had over A\$88 billion worth of projects in the pipeline as at October 2019.

## LNG, gas, oil major projects investment pipeline (October 2019)

	2018		2019	
	No. of projects	Range \$ billion	No. of projects	Range \$ billion
Publicly announced	12	28.1+	13	29.4+
Feasibility stage	15	36.0+	19	44.8+
Committed	13	10.9	6	14.3
Completed	7	103.5	5	3.6

SOURCE: DEPARTMENT OF INDUSTRY, SCIENCE, ENERGY AND RESOURCES. (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.)

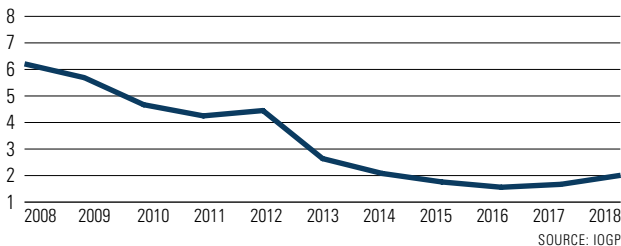
# SAFETY PERFORMANCE

The International Association of Oil & Gas Producers (IOGP) collects global safety performance data from both the onshore and offshore petroleum industry.

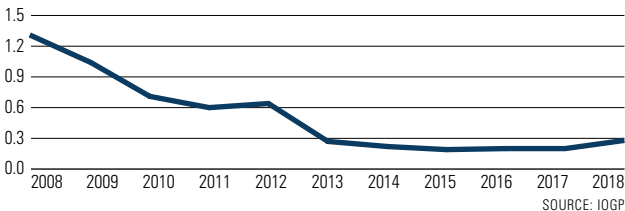
For 2018, the total recordable injury frequency rate (TRIFR)—the number of recordable injuries (fatalities + lost work-day cases + restricted work-day cases + medical treatment cases) per million hours worked was 2.01, up from 2017.

The lost time injury frequency rate (LTIFR)—the number of lost time injuries (fatalities + lost work-day cases) per million hours worked was 0.28, up from 2017.

## TRIFR (per million hours worked)



## LTIFR (per million hours worked)



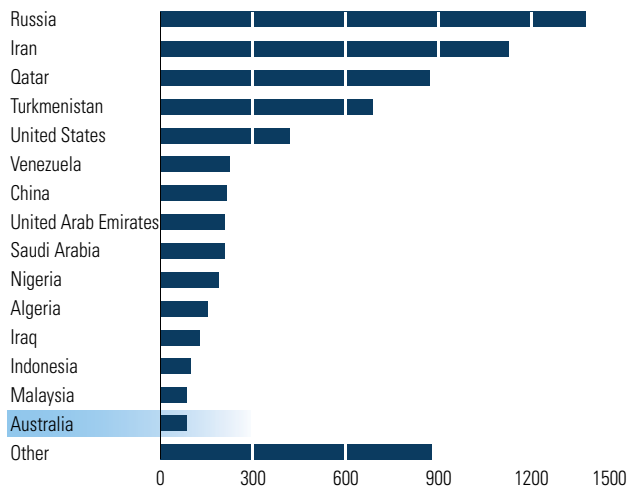
# RESOURCES

## 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 2018 (trillion cubic feet)



SOURCE: BP STATISTICAL REVIEW OF WORLD ENERGY 2019



## 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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APPEA ACKNOWLEDGES ENERGYQUEST'S SUPPORT IN PREPARING THIS REPORT



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