

# 7NEWS

## Fact check: Does Australia have 3 weeks of petrol in reserve?

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 Checks out

**PHOTO:** Senator Jim Molan has criticised the level of fuel held in reserve in Australia. (ABC News: Jed Cooper)

### The claim

**In the wake of US airstrikes on Syria, Liberal Senator Jim Molan raised concerns about Australian fuel supplies being affected by conflict in the Middle East.**

Speaking to Alan Jones on 2GB, Senator Molan criticised the level of fuel held in reserve in Australia.

"At the moment, from my estimations, in relation to petrol we have something between 19 to 24 days," Senator Molan said.

"In relation to diesel we have something between 12 to 17 days and in relation to aviation fuel... we've got something like 17 to 19 days."

So has Senator Molan got the numbers right? RMIT ABC Fact Check takes a look.

### The verdict

Senator Molan's claim checks out.

The Department of the Environment and Energy releases statistics showing the end-of-month stocks of fuel products in Australia.

The data available at the time of Senator Molan's claim, from December 2017, backs up his figures.

That publication gave 21 days of petrol stocks, 16 days of diesel and 19 days of aviation fuel - all within the parameters given by the senator.

At the time, the data was collected from companies on a voluntary basis. Due to concerns about its reliability, the Government has since begun publishing data collected on a mandatory basis.

The petroleum industry takes issue with the exclusion from the data of fuel stocks on ships en route to Australia, but experts told Fact Check there was good reason these stocks were not included.

The industry also notes that Senator Molan was quoting figures for refined products only. The department also publishes data for crude oil stored in Australia.

How quickly Australia could obtain fuel from alternative suppliers in the event of disruption to supply lines is not the subject of this fact check.

## Australia's sources of fuel

Production, imports and exports of fuel and oil and are separated into two main categories: unprocessed crude oil, and refined petroleum products.

Crude oil is the unprocessed liquid oil extracted from underground, while petroleum products are the finished, ready-for-use fuels that are the result of crude oil being refined.

An August 2017 report from the Department of the Environment and Energy shows that while Australia produces its own crude oil, around 75 per cent of local production is exported and refined overseas.

The report noted most of Australia's oil production occurred off the north-west coast - closer to Asian refineries than Australian refineries on the east coast.

"In addition, domestically produced grades of crude oil are generally not as well suited for use by local refineries as those sourced from other countries," the report said.

As such, Australian fuel consumption is heavily reliant on imports, with 75 per cent of crude oil and 55 per cent of refined petroleum sourced overseas, according to the department.

The department's monthly production statistics show that much of these imports come via the Asia-Pacific region.

In 2016-17, South Korea supplied 27 per cent of Australia's refined product imports by volume, closely followed by Singapore with 26 per cent. Japan supplied 14 per cent, Malaysia 10 per cent and China 8 per cent.

Crude oil is sourced from a more diverse range of countries, with Malaysia the largest supplier, at 33 per cent of imports, followed by the United Arab Emirates at 16 per cent.

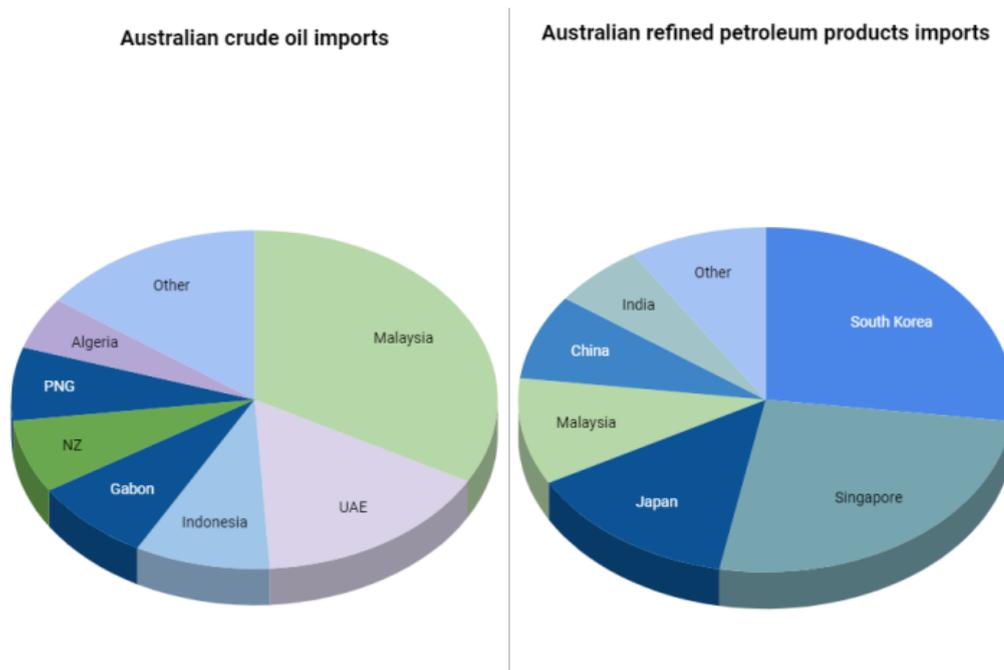
Indonesia, Gabon and New Zealand were the next three biggest sources, each supplying less than 10 per cent of Australia's crude oil imports in 2016-17.

While the exact origin of the crude oil arriving in Australia as refined products is difficult to determine, almost a third of global crude oil production in 2017 was in Persian Gulf nations, according to the US Energy Information Administration.

Conflict in or near to any of these places, including the Korean Peninsula, the South China Sea or the Middle East, has the potential to affect Australia's fuel supply.



**PHOTO:** The Damascus sky lights up with missile fire as the US launches an attack on Syria in April. Conflict in the Middle East, a major producer of oil, has the potential to affect Australia's fuel supply. (AP Photo: Hassan Ammar)



**PHOTO:** Australia's crude oil and refined petroleum product imports, by volume (2016/17) (Source: Australian Petroleum Statistics, March 2018)

## Australia's stocks of fuel

Fuel stocks are held by petroleum producers and at refineries and seaboard bulk storage terminals by major oil companies and some large consumers.

According to a 2015 submission from the then Department of Industry and Science to a Senate inquiry into Australia's transport energy resilience and sustainability, there are no publicly held fuel stocks in Australia, nor does the Australian government mandate compulsory stockholding by the private sector.

The submission said that three of Australia's seven refineries had closed in the previous five years and the country's "capacity for short-term surge production and fuel switching was limited".

The executive director of the Australian Strategic Policy Institute, Peter Jennings, told Fact Check a lack of refineries and fuel farms meant Australia would not have the capacity to store large quantities of fuel.

"We would not be able to actually keep much in-country stock because our fuel farms are now so decrepit and falling out of service that we wouldn't have the capacity to store it all," Mr Jennings said.

"It would take several billions of dollars to get us to a point where we'd have the storage capacity."

Four major oil companies hold stocks in Australia: BP, Caltex, Mobil Oil and Viva Energy. These companies are the key members of the Australian Institute of Petroleum, the peak industry body representing businesses involved in refining and/or marketing of petroleum.

According to Resources and Energy Quarterly, published by the Department of Industry, Innovation and Science, the largest proportion of oil refined in Australia — 44 per cent — became petrol. Diesel accounted for 35 per cent and jet fuel for 14 per cent. The remainder became fuel oil, LPG or other products and chemical feedstock.

In its submission to the 2015 Senate Inquiry, the Department of Industry and Science said that "approximately three quarters of all oil consumption in Australia is associated with the transport sector".

## Checking the numbers

The Department of the Environment and Energy publishes monthly Australian Petroleum Statistics, sourced from the Australian fuel industry.

While data for the first three months of 2018 has now been published, these statistics were not available at the time Senator Molan appeared on radio. Accordingly, Fact Check has used the December 2017 statistics to check the senator's claim.

The statistics published by the department give a count of days of consumption cover for a variety of oil and fuel products.

Days of consumption cover is calculated by taking the end of month stocks of a product as reported by the fuel industry, and dividing those stock levels by the average daily sales of that product over the previous 12 months.

Senator Molan specified three categories of refined products in his claim: automotive gasoline, diesel, and aviation fuel.

While the senator used the word "petrol", which could refer to any refined petroleum product rather than just petrol for cars, he clarified what he meant when he repeated the claim on The Bolt Report.

"We have at the moment now something between 19 to 24 days of petrol, for your car to get you to work," he said.

This type of petroleum is listed as automotive gasoline in the government data.

The government statistics show that at the end of December, Australia had stocks equivalent to 21 days of automotive gasoline consumption, 19 days of aviation turbine fuel and 16 days of diesel.

These statistics are within the parameters given by Senator Molan.

The Australian Institute of Petroleum told Fact Check that quoting figures for petrol "in reserve" ignored crude oil stored at Australian refineries, which will be turned into petrol and other transport fuels, and crude oil stored at crude production facilities that could be transported to Australian refineries.

Figures for these stocks are also published in the Australian Petroleum Statistics. The data available when Senator Molan made his claim showed 25 days of "crude oil and refinery feedstocks".

## How is the data collected?

Before January 2018, industry data was supplied to the Department of the Environment and Energy through a voluntary survey.

Last year the Government introduced legislation to make reporting mandatory.

The explanatory memorandum for the legislation noted the proportion of fuel market operators participating in the survey had declined, reducing the reliability of the statistics.

"Mandatory reporting will enable the development of more accurate, reliable and informative statistics on petroleum, other fuels and fuel-related products," the memorandum said.

A spokesman for the Australian Institute of Petroleum told Fact Check a key weakness in previous iterations of the department's petroleum statistics was the growth of smaller independent fuel importers in recent years, which were not voluntarily supplying data.

"As a result, the Australian Institute of Petroleum was strongly supportive of the decision to introduce mandatory petroleum data reporting, since a voluntary approach has not delivered a complete and robust petroleum dataset," he said in an email.

John Blackburn, a defence and national security systems consultant and the author of two National Roads and Motorists' Association (NRMA) reports on fuel security, also had doubts the statistics were completely reliable given they worked on a voluntary reporting system.

"Without the industry reporting what stock they had and where, [the department] were looking at the import and export data and estimating the stock levels," Mr Blackburn, a retired air vice-marshal, said.

The newest data - from March 2018 and collected with mandatory reporting - showed 22 days of automotive gasoline consumption, 23 days of aviation turbine fuel and 21 days of diesel.

## Excluded stocks

The then Department of Innovation and Science told the 2015 Senate inquiry that its Australian Petroleum Statistics data did not represent all fuel in the Australian supply chain.

"Petroleum en route to Australia by ships is excluded whilst fuel moving around the coast is included in the Australian Petroleum Statistics. In addition, all petroleum in pipelines, in transit by tanker (road and rail) and held at retail fuel sites and military stocks are excluded," the department said.

The Australian Institute of Petroleum takes issue with the criteria for fuel to be counted as "in reserve" in Australia, in particular the exclusion of offshore stock owned by Australian companies, data for which was collected but not published.

A 2017 submission from the institute to the Government on the proposed mandatory reporting said stock "on the water" en route to Australia represented more than a quarter of total inventory owned by Australian companies.

"This stock has not been effectively collected/reported in the past and has meant that the current APS data provides an incomplete picture of the total petroleum inventory under the control/ownership of Australian market operators and available to the domestic market."

However, experts contacted by Fact Check disagreed that stocks on water should be included in counts of fuel in reserve in Australia.

The exclusion of offshore stocks stemmed from International Energy Agency standards on fuel reporting, Mr Blackburn said.

"The reason being, as those tankers move around the world, their fuel cargos are often traded multiple times, so what leaves the Middle East or a refinery to come to Australia, may in fact get diverted because of different demands," Mr Blackburn said.

Dr Liam Wagner, a lecturer at Griffith University who specialises in energy, environmental and natural resource economics, told Fact Check he didn't think stocks on ships should be considered "in reserve" in Australia.

"For instance, shipping could be interrupted by a conflict, or ships could be re-routed by the operator, even if that were against the law," Dr Wagner said.

"The current Australian Petroleum Statistics data gives the full picture of fuel stocks."

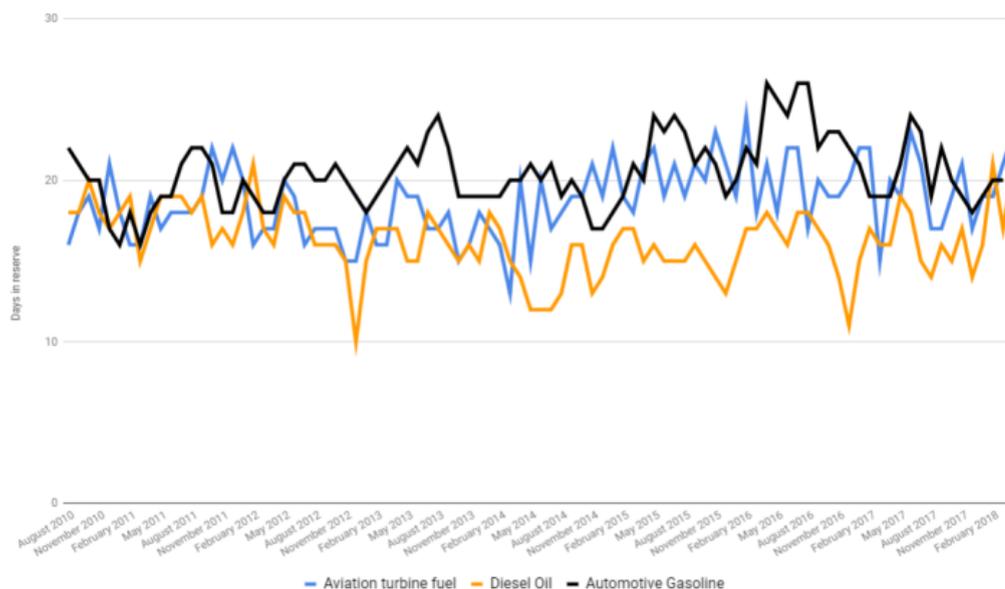
Australian National University Associate Professor Llewelyn Hughes agreed stock on ships should not be included in counts of fuel reserves.

"If cargoes can be resold, I see little sense including offshore stocks in the APS data, even if it may not be economic to resell," he said.



**PHOTO:** Australia imports fuel from more than 20 countries, with no one country supplying more than 20 per cent of combined crude oil and petroleum. The diversity of suppliers has increased in the past decade. (ABC News)

**How many days worth of fuel does Australia have?**



**PHOTO:** How many days worth of fuel does Australia have? (Source: Australian Petroleum Statistics, March 2018)

## Fuel reserves in an emergency

Mr Blackburn said the count of days of average consumption, which was based on average sales, was problematic because they were not indicative of what might happen in a crisis.

"The moment you get an emergency, if people are aware that it's coming, everyone's going to rush out and fill everything up they possibly can, and that then accelerates the problem."

Mr Jennings agreed. "If you look at jet fuel, for example, a crisis may cause a sudden spike in use, if the air force require more resources," he said.

"Or if rationing was applied, the supplies would last longer. A lot of assumptions go into how those figures are put together."

Associate Professor Hughes also noted buyer panic would contribute to shortages.

"Historically, supply disruptions have been experienced as price phenomenon, although buyer panic can drive localised shortages. Modelling supply disruptions across multiple scenarios is the best way to assess the real vulnerabilities Australia faces."

Despite this scepticism, Mr Blackburn, Mr Jennings and Associate Professor Hughes agreed the Australian Petroleum Statistics was the most reliable available.

"My best judgement would be that those stats are in ballpark of the actual stocks held in Australia," Mr Blackburn said.

## Government reviews

In the wake of the recent renewed discussion around fuel reserve levels, on May 7 Energy Minister Josh Frydenberg announced a Turnbull Government review into fuel security.

Mr Frydenberg said the assessment "should not be construed as Australia having a fuel security problem", but was the prudent and proper thing to do to make sure Australia was not complacent.

The review follows a number of reports relating to fuel security commissioned by federal government from both sides of politics over the past decade.

These include National Energy Security Assessments published by the former Labor government in 2009 and 2011, and the Coalition's 2015 Energy White Paper.

The consensus from these government reports has been that the Australian fuel market and a diverse range of suppliers mean there is little risk to fuel security in the event of a disruption along the supply chain.

The 2011 National Energy Security Assessment said Australia had "access to well-functioning markets for liquid fuels which have helped create robust and flexible supply chains with a significant degree of resilience".

The 2015 white paper said the Government "considers that supply reliability will be maintained because of the depth, liquidity and diversity of international crude and fuel markets".

These views were echoed in a 2011 report assessing Australia's liquid fuels vulnerability commissioned by the federal government from consulting firm ACIL Allen, a second 2014 report from ACIL Allen titled Oil Market Responses to Crises, and a 2014 review of Australia's oil market resilience to supply disruptions commissioned from New Zealand consultancy firm Hale & Twomey.

More recently, officials told a joint parliamentary committee that the Department of Energy and Environment continued to monitor domestic liquid fuel markets.

The department's assistant secretary for energy security policy, Helen Bennett, gave evidence that Australia imported fuel from more than 20 countries, and no one country supplied more than 20 per cent of combined crude oil and petroleum.

"So it's a very diverse market, much more so than, say, a decade ago, where we were very heavily dependent on Singapore," Ms Bennett said.

Associate Professor Hughes told Fact Check he believed the high cost of increasing fuel reserves played a part in the divided opinion on whether fuel security was an issue worth closer attention.

"The reason for the divide is because [increasing fuel reserves] is costly, as it would require the government to hold public stocks, require higher holdings by companies in private inventories, or buy tickets," Associate Professor Hughes said.

"Against this, security experts tend to more strongly emphasise the potential for more severe, longer, disruptions due to geopolitical events."

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**Topics:** oil-and-gas, international-aid-and-trade, government-and-politics, federal-government, australia