April 2026
Amandine Denis-Ryan || CEO, IEEFA Australia

Managing Australia's diesel squeeze

How acting now can save fuel and protect essential services

- *Australia imports 87% of its diesel, and is the world's largest diesel importer. It could face a diesel squeeze as prices skyrocket and suppliers curtail exports or even become importers due to a prolonged Middle East fuel crisis.*
- *Eco-driving, improved maintenance and optimised logistics could likely cut diesel use by 10%–20% in transport, mining and agriculture, so the government should ramp up its focus on driver education and training, and incentivise fuel-optimisation solutions.*
- *With the top 10% of road users responsible for up to 40% of all kilometres driven, incentivising electrification of these vehicles could reduce diesel use faster.*
- *Australia should prepare for the fuel supply crunch's potential "long tail" now by developing systems to quickly deploy fuel rationing and protect essential services if the need arises.*

Around the beginning of April, the last of the oil tankers to leave the Persian Gulf before the beginning of the Iran conflict and the closing of the Strait of Hormuz reached Asia. Other shipments bound for Europe and North America landed about 10 and 15 days later, respectively. Australia, however, faces a longer lag from the full impacts of the Iran crisis, due to the fact most of its imported oil products must first be refined in Asia.

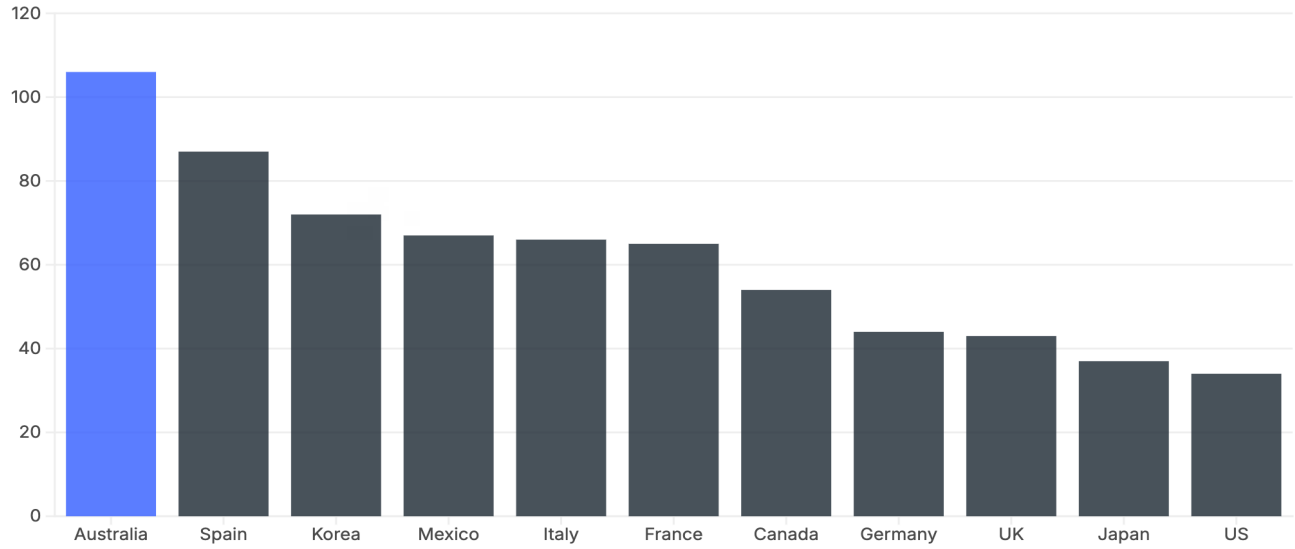
Australia vulnerable as the world faces a diesel squeeze

A nation highly dependent on fuel imports

Diesel makes up more than half of Australia's petroleum product use (excluding oil use for petroleum refining). Diesel is a key energy source for major economic sectors, in particular transport, mining, agriculture and construction.

Australia is one of the world's highest users of diesel on a per dollar GDP basis, with a diesel consumption about three times as high as the US and Japan, and twice as high as Canada (Figure 1).

Figure 1: Diesel use intensity for selected OECD countries, barrels per US$ million GDP

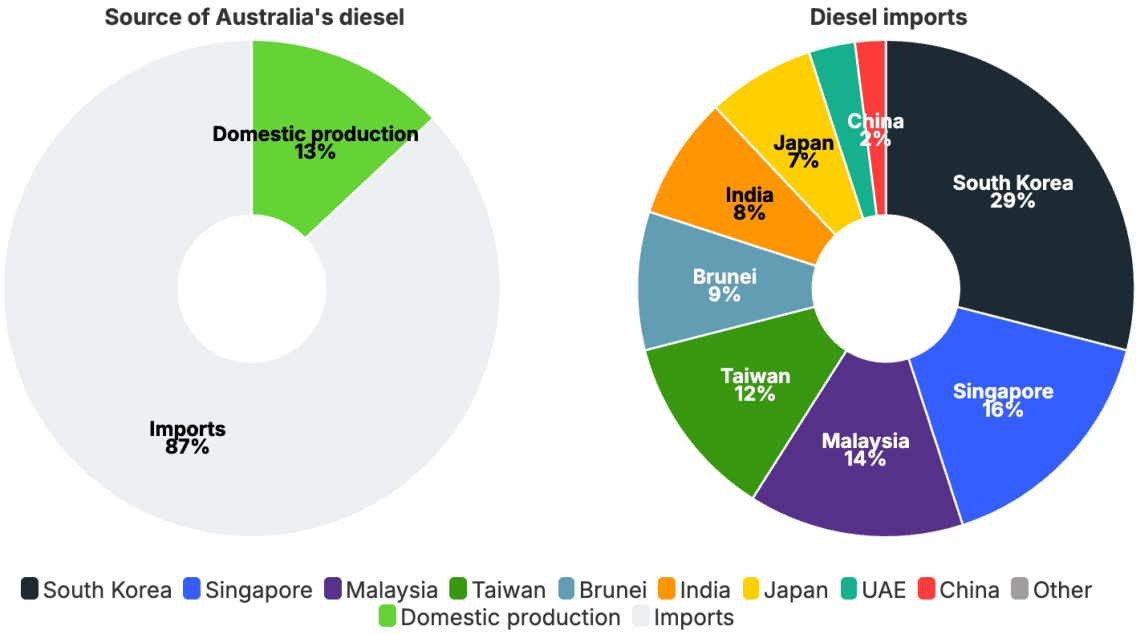


Source: International Energy Agency (IEA); World Bank. Note: Diesel use is for January 2026 while GDP figures are for 2024.

In addition, Australia is highly dependent on imports for its diesel use. Only 13% of the country's diesel is sourced from domestic production, with the vast majority imported from Asia (Figure 2). The recent fire at Geelong's Viva refinery is expected to primarily affect petrol production, though the entire facility will operate at reduced levels for several weeks as a safety precaution.

Public trade data on diesel is scarce, but Australia was reportedly the world's largest importer of diesel in 2025. The scale of Australia's imports is staggering compared with the total diesel trade. In 2025, Australia was estimated to represent between 6.5% and 10% of global seaborne trade. This compares with Australia representing just 0.3% of the world's population and 1.6% of the world's GDP. This is due to Australia having relatively high diesel consumption and a low level of domestic refining.

Figure 2: Source of Australia's diesel (left) and of diesel imports (right)

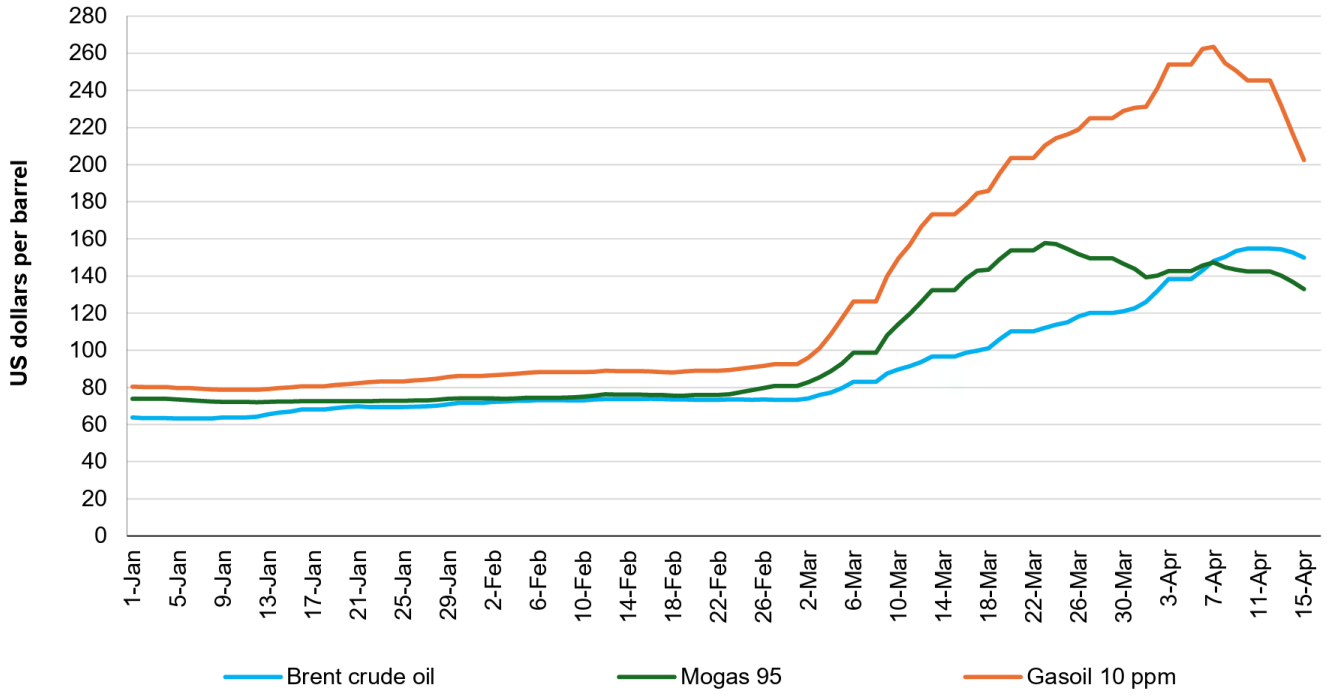


Source: DCCEEW: Australian Petroleum Statistics.

The world faces a diesel squeeze

Diesel prices have had larger increases and more volatility than crude oil and petrol prices. At their peak in early April 2026, diesel prices had tripled compared with prices at the start of the year, compared with an approximate doubling in price for crude oil and petrol (Figure 3). The Australian Competition and Consumer Commission (ACCC) explained why this is so: "[…] refined diesel prices continue to increase more rapidly than refined petrol prices as the Middle-East is a key supplier of both diesel and the crude oil grades that yield the greatest diesel volume upon refining. The larger refineries in Asia, which Australia relies heavily upon for importing diesel, are mostly configured to process these more sour crudes produced in the Middle-East."

Figure 3: Weekly average international crude oil and refined fuel benchmark prices

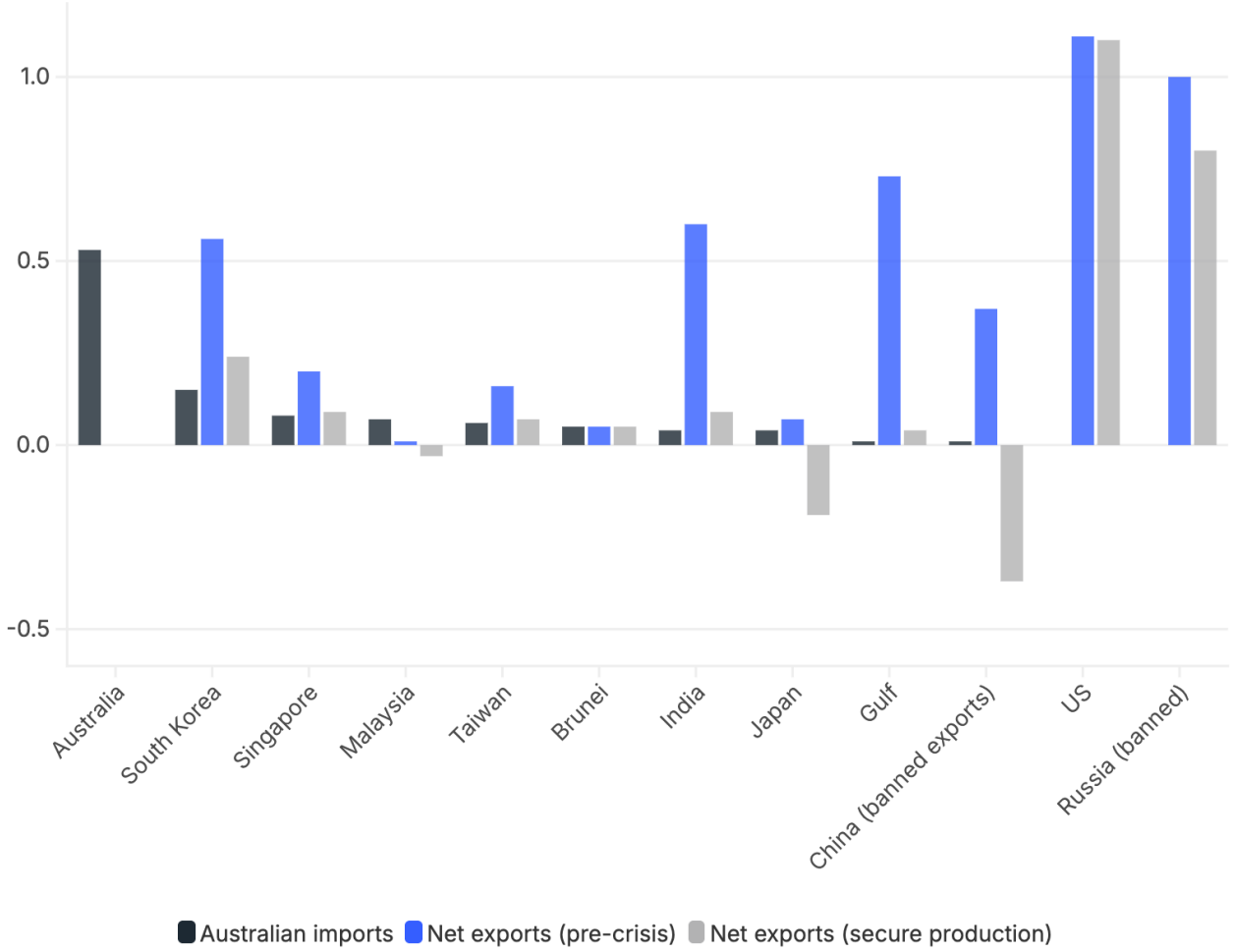


Source: ACCC.

The crisis is putting significant constraints on the ability of key diesel producers in the Asia-Pacific region to continue exporting it. Figure 4 shows pre-crisis diesel export levels from Australia's suppliers in 2025 and Russia (from which oil imports are banned), as well as the impact a halving of crude oil supply from Gulf countries would have on diesel exports, if domestic demand remains constant and this crude oil supply is not replaced. Most Asia-Pacific countries would need to either slash their exports or even start importing to meet their domestic demand. China has already banned exports of diesel. Taiwan, Brunei and India have also reportedly materially decreased their exports to Australia.

Some countries would be able to tap into their crude oil reserves to compensate for the loss in Middle Eastern supply. In particular, Japan and South Korea both have 200 days or more of net imports in stock. A prolonged conflict could reduce the willingness of those countries to use their reserves for exports.

Figure 4: Diesel imports (Australia) and net exports (others), million barrels per day (Mb/d)

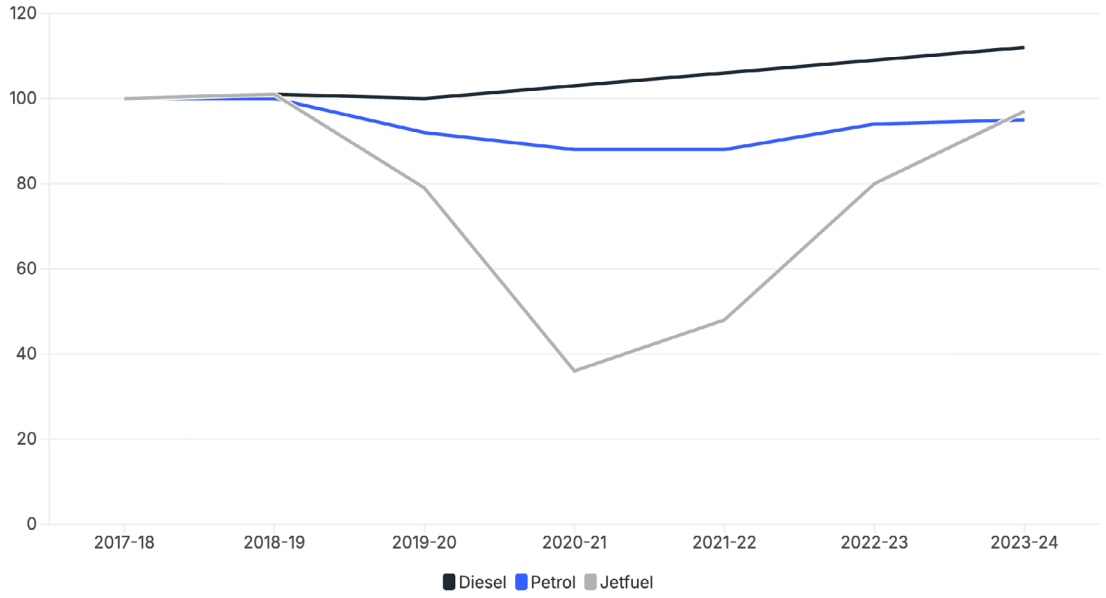


Source: See Appendix for source data.
Note: Secure production levels represent production levels if imports from the Middle East are reduced by 50% with no alternative suppliers secured and no change in domestic demand. The categories Distillate Fuel Oil, Gasoil or High Speed Diesel were used when diesel wasn't specified. Very limited data exists on Brunei; total diesel exports are estimated to be close to exports into Australia given Australia is the country's largest export market, and diesel exports to Australia represent nearly 30% of the country's refining capacity. Russian exports are assumed to be reduced by 20%. Oman is considered the only Gulf country able to continue to export diesel given that bypass routes are focused on crude oil.

It is unlikely that material decreases in domestic demand will help boost exports from Asian countries. Diesel use has a low elasticity to prices, as it is a non-discretionary item. A comprehensive review of the literature on transportation demand elasticity found that diesel elasticity is low, half that of petrol in OECD countries. This was supported by a Korean study, which found that diesel use was relatively inelastic to price changes, and much more sensitive to income changes. A US study even found that demand for trucking fuels had shifted from being elastic to inelastic between 1970 and 2012.

This lack of elasticity could be observed in Australia during the COVID epidemic, when diesel use did not fall while petrol use declined by up to 12% and jetfuel by up to 64% (Figure 5). While petrol and jetfuel consumption had still not recovered to pre-COVID levels in 2023-24, diesel continuously increased over the period.

Figure 5: Australian consumption of key refined petroleum fuels since FY2017-18, index



Source: DCCEEW: Australian Energy Statistics.

Even if the Strait of Hormuz is reopened in the short term, the conflict is likely to have a lasting impact on fuel supply. The International Energy Agency (IEA) has warned it could take six months or more to get supply volumes back to pre-conflict levels. Many infrastructure assets have been damaged, and it takes time to restart these facilities. In addition, there is a long lag in the system due to the time it takes for oil to transit by sea, for instance, about two months to reach Australia from the Middle East.

Australia can take steps today to improve its diesel resilience

Fuel efficiency improvements could deliver fast relief

The largest user of diesel by far is road transport, which represents 53% of Australia's diesel use (Figure 5). Based on 2020 data, the largest subcategories are light commercial vehicles (31% of road transport diesel use), articulated trucks (27%), cars (19%) and rigid trucks (19%). There are many opportunities to deliver fast improvements in fuel efficiency in road transport, particularly through eco-driving, speed reduction and improved maintenance and logistics.

Eco-driving involves avoiding unnecessary acceleration and braking, maintaining a steady speed at low revolutions per minute, shifting up gear early and minimising idling. The best truck drivers use 35% less fuel than the worst drivers just through their driving practices. In 2012, Australian logistics company Linfox reduced its carbon emissions by 14% by implementing a program to coach its drivers in eco-driving competencies, which it embedded in the company's performance management system. An Australian case study also found that private drivers who attended eco-driving training reduced their fuel use by 4.6% compared with a control group. A pan-European program focused on eco-driving found that training could deliver reductions in fuel use of 6%–22%.

Improved maintenance can also reduce fuel use by optimising vehicle performance. For example, the federal government advises that "truck tyres inflated 10 psi below recommended air pressure levels can lower truck fuel efficiency by around 5%", and that "the combined effect of low-viscosity synthetic engine oils and drivetrain lubricants can improve fuel economy by at least 3%".

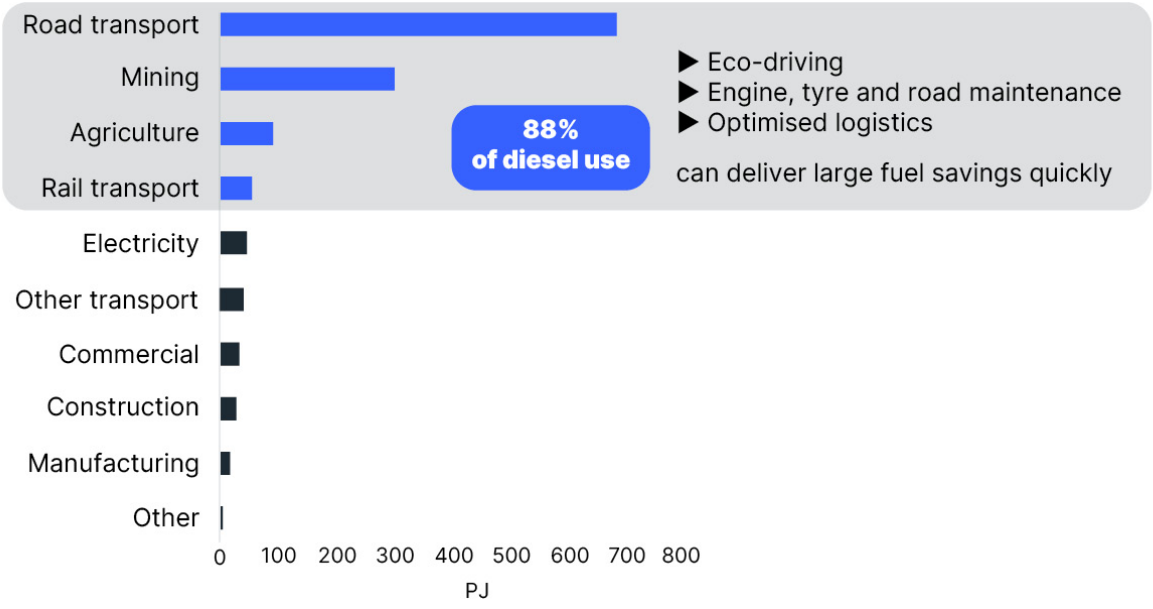
Route optimisation can decrease fuel use by reducing the distance travelled and avoiding traffic congestion. Load consolidation – combining multiple deliveries into a single vehicle and trip, or using double-stacked trailers – can also improve fleet utilisation and reduce fuel use.

Finally, reducing speed on highways by 10 kilometres per hour (km/h) can have a significant impact on consumption. The IEA estimates that this can reduce cars' fuel use by 1%–6% in total and heavy freight trucks' fuel use by about 5%. In response to the crisis, Pakistan has already reduced motorway speed limits from 120 km/h to 100 km/h for light vehicles and from 110 km/h to 90 km/h for heavy vehicles. It is important to note that reducing speed limits has an impact on productivity given that it lengthens travel times, but it is a proven crisis measure.

Opportunities to quickly reduce diesel use in mining, agriculture and rail are often similar to road transport solutions. Maxmine, a mining service provider, estimates that improving idle time, payload, driver behaviour, engine health and rolling resistance (improving road maintenance) can cut diesel use in mines by up to 40%. Studies on individual opportunities have shown that large fuel savings can be achieved through reduced payload variance (up to 35%), enhanced dispatching systems (up to 20%) and from road treatment (17%). It is unclear how many mines have implemented those types of initiatives. Data from the past Energy Efficiency Opportunities (EEO) program showed there was a large gap between top-performing miners in terms of energy efficiency and others. The top quintile of companies reduced their energy use by 14% while the average reduced it by just 2% and the bottom quintile by 0%.

In agriculture, the NSW government advises that, "the machinery selection process, training and motivating staff to drive efficiently, tractor set-up and maintenance, and effective planning and record keeping" can each reduce diesel consumption by 5%–20%. In rail transport, key opportunities include lowering speeds, restricting throttle use to reduce braking, driver assistance software, reducing idling, better maintaining wheels and tracks, and optimising logistics. Driving and schedule optimisation technology developed in Australia is delivering up to 15% energy savings.

Figure 6: Diesel use by sector and fast demand reduction opportunities



Source: Department of Climate Change, Energy, the Environment and Water (DCCEEW): Australian Energy Statistics 2025.

The government has already launched a campaign to raise awareness of "simple, practical behaviours to use less fuel". It should urgently ramp up its efforts and roll out education and training for drivers in those sectors on how to improve fuel efficiency, particularly for businesses.

It should also incentivise the implementation of fuel-optimisation solutions. In addition to helping mitigate any potential supply shortfalls, these initiatives would reduce the financial impact of the oil crisis on businesses.

Electrification of the largest road users could deliver faster savings

Shifting Australia's vehicle fleet from diesel to electric will take time. Electric vehicles (EVs) represent 15% of new vehicle sales and about 2% of all cars on Australian roads. For heavy vehicles, almost 1,000 electric vans and trucks have been sold in Australia to date, and a similar volume of diesel-electric hybrid vehicles. In the first quarter of 2026, battery electric vehicles represented 0.76% of new heavy vehicle sales.

One way Australia could accelerate the impact of electrification is by targeting the largest road users first. Data on distribution of kilometres driven by driver is poor; the latest information available dates from 2014. This data shows that the top 10% of drivers are responsible for 30%–40% of kilometres driven in every vehicle category, and the top 20% of drivers are responsible for 48%–64% of kilometres driven (Table 1). Australia could therefore achieve strong diesel demand reduction by targeting those drivers to shift to EVs in coming years.

Table 1: Distribution of diesel use, vehicles and share of distance driven by vehicle type

Vehicle type	Transport diesel use %	Share of distance driven		Diesel vehicles, '000s
		Highest 10% of drivers	Highest 20% of drivers	
Light commercial	31%	32%	50%	3,234
Articulated truck	27%	30%	52%	127
Car	19%	30%	48%	2,350
Rigid truck	19%	40%	59%	649
Bus	3%	34%	53%	89
Other truck	0%	40%	64%	41

Source: Bureau of Infrastructure and Transport Research Economics (BITRE) (2014 data on distribution of kilometres driven by vehicle type and 2025 data on number of diesel vehicles), ABS (2020 data on % diesel use).

In the short term, incentivising large road users with diesel cars to switch to EVs could make a material difference in car diesel consumption. In March 2026, 15,839 battery electric vehicles were sold in Australia. A similar number of monthly sales could replace 12% of total car diesel use over six months if it displaced diesel vehicles in the top 10% of road users. Many of the EV models available in Australia now have a range of more than 500 kilometres per day, which should be able to cater to high road users.

In the medium term, vans appear to be low-hanging fruit for fast progress. Light commercial vehicles (LCVs), which include vans, utes and small trucks, are responsible for about 31% of diesel use in the Australian transport sector, or about 17% of total national diesel use. Australia's uptake of EVs in this category is much lower than in other countries. In 2024, electric LCVs comprised 7% of new sales globally, and about a third of new sales in China. In the first half of 2025, they represented 80% of new sales in the Netherlands and over 20% of new sales in Northern European countries. The high penetration in China has been supported by tax exemptions, preferential road rights, and charging discounts and subsidies. In Australia, it is worth noting that about three quarters of new LCVs are utes (pick-ups/cab-chassis vehicles), which have fewer electric models available than vans. However, electric utes are becoming available in Australia.

Penetration of EVs is lower globally for heavy-duty vehicles, but growing fast, especially in China. Electric truck sales represented 22% of new sales in China in the first half of 2025, and 8%–17% in several European countries. Almost 450 models of heavy-duty electric vehicles were available in China in 2024, about 150 in Europe and more than 140 in the US. On top of the upfront cost barriers, electric trucks also face a range of challenges, such as mass and width limits that exclude a range of models and reduce the payload an electric truck can carry. There is also a critical lack of infrastructure, such as adapted roads and fast charging networks for heavy vehicles. The oil crisis has prompted the Electric Vehicle Council to call for a nationally consistent approach to address those issues and to incentivise new EV purchases. It also urged a reform to curfews to enable overnight electric freight deliveries given they are much quieter than diesel trucks – which could optimise the use of the existing electric fleet.

Several policy options could incentivise electrification of large road users. Incentives could target high users based on proof of annual mileage or could be dedicated to high-usage sectors such as ride-hailing or long-distance freight. They could include accelerated depreciation or preferential loans, buy-backs of high diesel use vehicles, financial support for home or depot charging infrastructure, and priority access and/or discounted fees for fast charging networks. These could be complemented by road upgrades and support for the deployment of fast charging infrastructure on major roads. Restricting fast charging points for high users could increase confidence that they will be available when they are needed, especially while they are limited in number.

Another approach could be to make incentives available to all users, but design them so the incentive is larger for high users. For example, incentives could be designed on a per litre of diesel saved basis. This means the same vehicle could attract significantly larger financial support for a high user than an occasional user.

One of the benefits of targeting financial support at high users is that it would be more fiscally efficient, delivering a higher volume of diesel savings and emissions reductions per dollar spent. One challenge is access to reliable data on kilometres driven per year, which varies by state. New South Wales (NSW) has the most advanced system, with odometer readings for the past three years available publicly for all cars, motorcycles and trucks registered in the state. Other states often record it when vehicles change ownership. For businesses, incentives could be designed with clawback mechanisms – requesting repayment if actual kilometres driven are materially lower than declared.

It would be beneficial for the government to collect up-to-date data on kilometres-driven distribution, penetration of EVs for high road users, key routes taken and barriers to EV adoption to help support this type of initiative. Given that odometer data is readily available in NSW, it would be a good place to start.

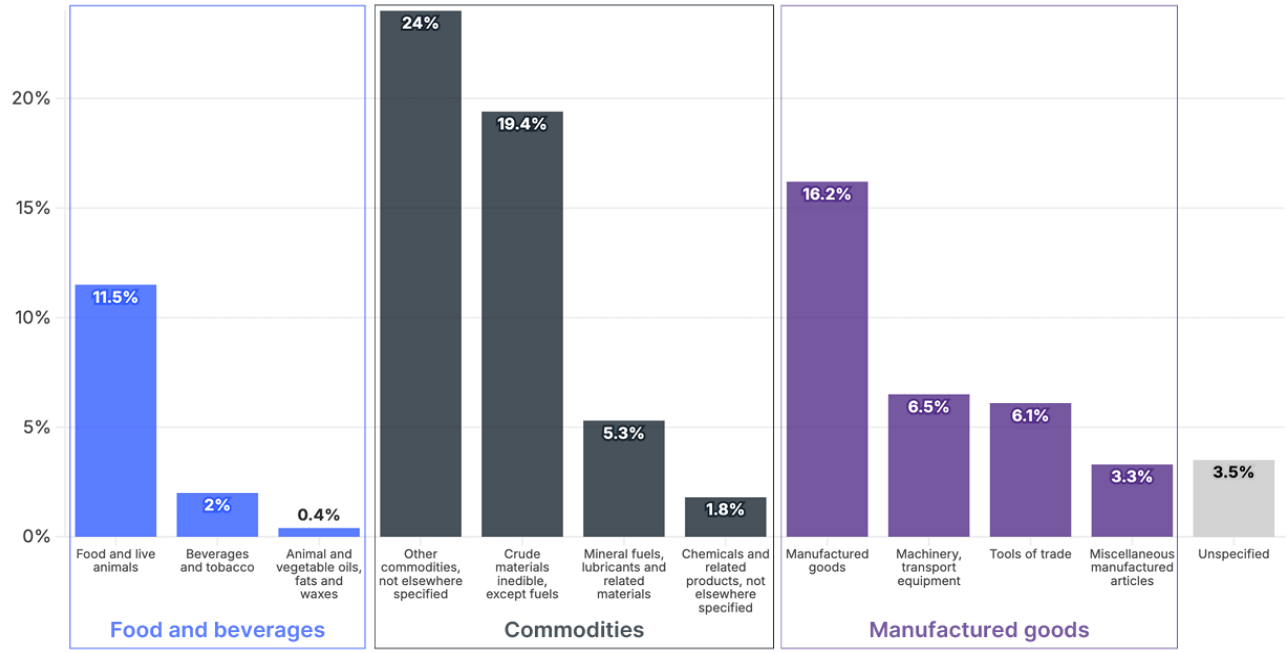
Australia should prepare now if stronger interventions are needed later

In the coming months, it is possible Australia may not have enough diesel to support all activities. It may need to implement urgent measures to ensure essential services can continue to operate. This may mean implementing fuel rationing to prevent panic buying and stockpiling, and implementing systems to prioritise supply of essential services. The National Fuel Security Plan indicates that a "nationally consistent framework for the prioritisation of fuel supplies to critical sectors" would be developed at Level 4, while Australia is currently at Level 2. Completing preparatory work before Australia gets to Level 4 would likely greatly enhance the country's ability to respond rapidly.

New systems would be required to implement fuel rationing, which may take time to develop. For example, Sri Lanka was able to quickly deploy a QR-code based system within 48 hours of the Strait of Hormuz closure, having developed it during its 2022 energy crisis. The system is sophisticated, with users having to register online and being allocated a quota. If they hit their quota, the fuel pass is deactivated for a week.

It is unclear whether Australia has the data available to understand how much diesel is used to support essential services. The last survey of motor vehicle use by the Australian Bureau of Statistics (ABS) was done in 2020, and has been discontinued. It does not provide the detail required to understand which trucks carry essential goods (e.g. manufactured food products, medical supplies, fertilisers) or discretionary items (Figure 6). It is also presented in tonnes rather than tonne-kilometres, which would provide a better estimate of the fuel requirements.

Figure 7: Share of tonnes carried by freight vehicles, by commodity



Source: ABS.

It will also be critical to support remote communities reliant on diesel for electricity. About 500,000 people, or 2% of Australians, are not connected to the electricity grid. In these areas, electricity supply is most often provided by diesel generators. Economic analysis of a microgrid project in remote south-west Queensland found shifting to renewables backed by batteries and diesel could deliver significant power bill savings, reduce emissions, lower government subsidies and improve power reliability. The Northern Territory (NT), which is home to many of those remote communities, has set a target for 70% of renewable electricity generation for Indigenous Essential Services communities by 2030. Several communities have already benefited from a rollout of solar power. However, Infrastructure Australia says the broader initiative is not a priority for planning or delivery investment in the next year, but should be considered by the government in the next two to four years. In light of the fuel crisis, the federal government should consider an accelerated deployment program in remote communities in the NT and elsewhere.

Conclusion

While the federal government has secured fuel supply to the end of May, Australia is likely to feel the effect of the Middle East crisis with a significant lag due to the time it takes for oil to transit from Gulf countries to Asia then Australia. Diesel is a key vulnerability for the country, as it imports 87% of its diesel and is the world's largest diesel importer. Should oil supply from the Middle East be disrupted for a long period, many of Australia's key diesel suppliers are likely to materially curtail their exports, and some could even become importers.

Australia can act now to reduce the impact of a diesel squeeze. Large fuel savings can be achieved from quick fuel efficiency improvements in road and rail transport, mining and agriculture, such as improved driving practices, better engine and tyre maintenance, and optimised logistics and planning. Savings of 10%–20% of diesel use appear achievable through these initiatives, while offsetting some of the diesel cost increases experienced in those sectors. Reducing highway speeds can also deliver material savings but comes at a productivity cost.

Data suggests the top 10% of road users represent 30%–40% of kilometres driven, which means electrifying them could deliver significant benefits in a relatively short period. If supply became really constrained, fuel rationing and essential services prioritisation may be required.

Australia's location means it may feel the crisis for longer than other countries, but it is also buying the country time to prepare for a possible diesel squeeze. The government should not squander this opportunity.

Key recommendations for government

Implement now

- **Driver education and training:** expand current efforts by rolling out education and training programmes focused on eco-driving practices, particularly for businesses, and improved maintenance and logistics in the transport, mining and agriculture sectors.
- **Incentives for fuel-optimisation solutions:** support the roll-out of measurement, software and management solutions to optimise diesel use in operations, especially in the freight and mining sectors.
- **Electrification of high road users:** implement either dedicated incentives for the electrification of high road users, or design broad-based programmes that provide stronger incentives for high users, starting with diesel cars.
- **Infrastructure:** support the deployment of fast chargers on key routes; start planning for road upgrades on major freight axes.
- **Heavy freight electrification enablers:** address obstacles to freight electrification such as mass and width limits; reform curfews to enable overnight electric freight deliveries.

Prepare in case the need arises

- **Reduced highway speeds:** get ready to reduce speeds by 10 or 20 km/h should diesel supply dwindle.
- **Essential services assessment:** develop comprehensive, up-to-date data on the diesel requirements for critical services.
- **Fuel rationing preparation:** develop systems and tools so that a fuel rationing system could be deployed quickly if the need arises.
- **Remote communities protection:** accelerate the deployment of solar and battery systems to communities that rely on diesel for their electricity generation.

An Appendix detailing the exposure of key diesel exporters to Middle East supply disruptions can be downloaded here.

About IEEFA

The Institute for Energy Economics and Financial Analysis (IEEFA) examines issues related to energy markets, trends, and policies. The Institute's mission is to accelerate the transition to a diverse, sustainable, and profitable energy economy. www.ieefa.org

About the Author

Amandine Denis-Ryan

Amandine has been the CEO at IEEFA Australia since 2022. She is a recognized expert in energy markets and the energy transition. Amandine has particular expertise on gas and LNG markets, demand-side opportunities and industrial decarbonisation. She has worked with and advised many organisations on the strategy, investment and risk implications of the energy transition. adenisryan@ieefa.org