

Fuel prices in Queensland

August 2019

RACQ monitors automotive fuel prices throughout Queensland on behalf of its members. In the 2018/19 financial year, RACQ found the average passenger car in Queensland used 1,395 litres or \$1,970 worth of fuel per annum¹, 26.8 litres or \$38 per week.

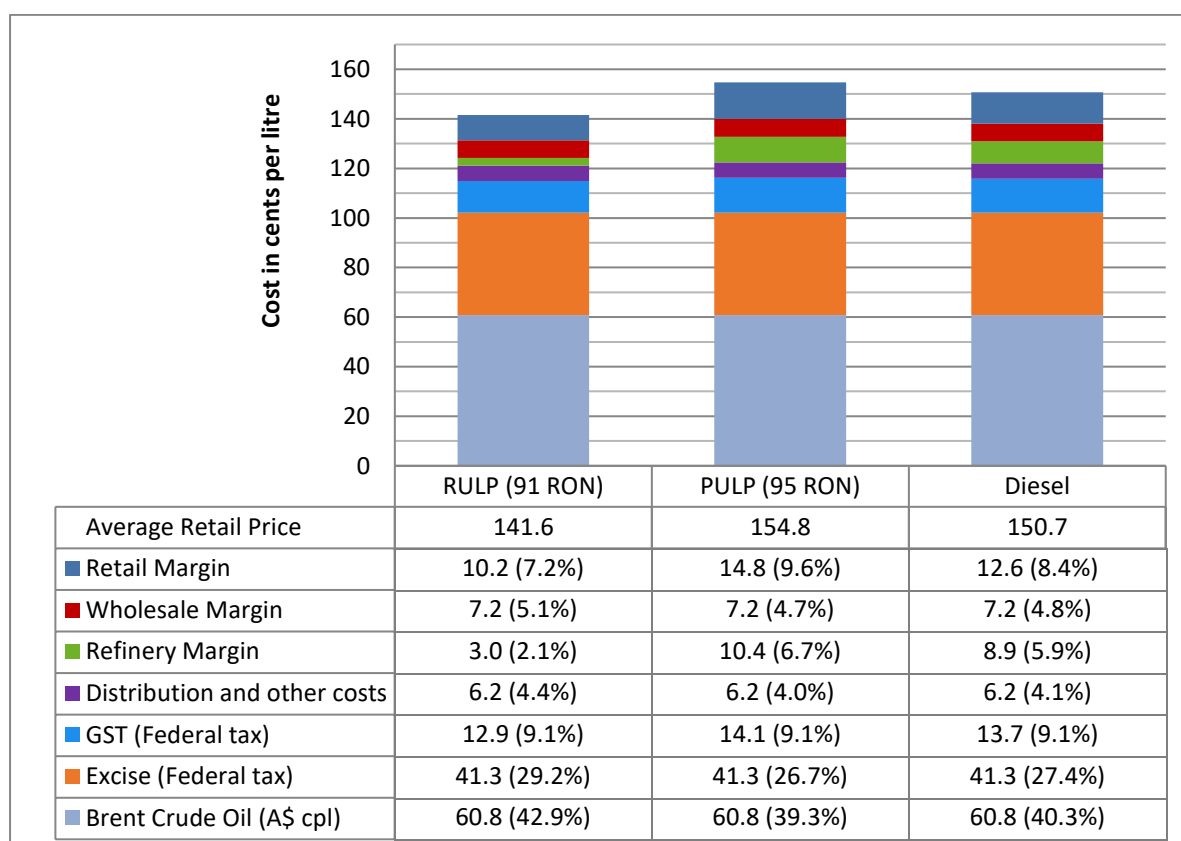
Motorists in Queensland can purchase:

- unleaded petrol (Regular 91 RON – RULP, Premium 95 or 98 RON – PULP)
- ethanol blended petrol (typically E10 – 10% ethanol and 90% petrol, or the less common E85 – 85% ethanol and 15% petrol)
- liquid petroleum gas (LPG)
- diesel

Cost components of fuel in Queensland

RACQ has dissected the cost components in a litre of fuel. The table below shows the costs for RULP (91 RON), PULP (95 RON) and diesel for the 2018/19 financial year (2018/19)².

The costs are not fixed and vary from month to month and year to year. The pricing for LPG is significantly different from the other fuels and will be discussed separately.



¹ Assuming average annual distance travelled as 12,800km (ABS 2019, *Survey of Motor Vehicle Use*), average fuel economy of 10.9 litres/100km (ABS 2019) and average cost of RULP in Brisbane for 2018/19 of 141.6 cpl (RACQ calculations using OPIS data).

² RACQ calculations using OPIS data

As can be seen in the table above, the largest cost component in fuel is the crude oil used to produce the refined fuel, at 60.8 cents per litre (cpl) or 43% of the total cost for RULP. Second to this is tax – excise and GST, which together accounted for 54.2 cpl or 38%. The remaining costs include transport and the margins added by fuel companies. For the latest cost breakdown, please see this month’s RACQ Monthly Fuel Price Report. The monthly reports can be found here: <http://www.racq.com.au/fuel>.

Excise and taxes

Two taxes are applied to retail fuel in Australia: fuel excise and GST. Fuel excise (as of 1 August 2019) on regular petrol and diesel was 41.8 cpl. Excise on E10, at 38.7 cpl, was slightly lower because excise is applied at a discounted rate to the ethanol component. Excise on LPG was 13.7 cpl. Excise is indexed to the consumer price index (CPI) and increased twice yearly, in February and August. The next increase is due on 1 February 2020.

GST is charged at 10% for all fuels. In 2018/19, the average GST on regular RULP sold in Brisbane was 12.9 cpl.

Retail prices

The fuel reporting and analysis undertaken by RACQ is based on electronic pricing data supplied by OPIS³ and the Queensland Government’s Mandatory Fuel Price Reporting Trial⁴. RACQ’s website and fuel price app allows members to find the cheapest fuel in Queensland by location. These services can be found here: www.racq.com.au/fairfuel.

RACQ publishes monthly and annual fuel price reports, summarising fuel price trends in Brisbane, Australian capital cities and regional Queensland. The annual report analyses fuel price movements for the previous year, with a focus on the key Brisbane capital city market. The monthly and annual reports can be found on the RACQ fuel price webpage: www.racq.com.au/fuel.

Fuel company margins

To assess fuel company prices over time and between towns and cities, RACQ monitors fuel company margins and highlights when they are unreasonably high. RACQ calculates indicative margins at three points in the fuel supply chain: refining fuel; wholesale supply; and retail, using models based on the retail price of RULP, the Terminal Gate Price (TGP, the wholesale price charged by fuel companies), and the price of Brent crude oil.

In 2018/19, indicative average retailer margins for RULP sold in Brisbane were 10.2 cpl, wholesale margins were 7.2 cpl, and refiner margins were 3.0 cpl. The total margin was 20.4 cpl. Average retail margins in Brisbane tend to be higher than those in the southern capitals.

Local competition and retail margins

The price of fuel depends on the competitiveness of the local market. In order to increase sales volumes, a retailer may lower their bowser price by reducing their retail margin. In response, the neighbouring retailers are likely to reduce their price. For example, competition between retailers on Beaudesert Road in Acacia Ridge and the neighbouring

³ OPIS (Oil Price Information Service) by IHS Markit, <https://www.opisnet.com/>

⁴ <https://www.dnrme.qld.gov.au/energy/initiatives/fuel-price-reporting-trial>

area often leads to them offering some of the cheapest petrol in Brisbane.

Independent retailers often offer the cheapest fuel in Brisbane, and their market share is increasing. In 2016/17 accounted for 25% of national sale volumes up from 18% in 2011/12⁵. Fuel retailing in Queensland, like the rest of the country, has been dominated by supermarkets (Coles and Woolworths). However, their market share is declining. In 2016/17 fuel sold by the supermarkets accounted for 37% of fuel sales by volume, down from a peak of 51% in 2012/13. In 2016/17, the refiner marketers, or the majors, (BP, Caltex and, to lesser extent, Shell/Viva Energy) accounted for the remaining 38% of sale volumes, up from 30% in 2012/13. The shift away from the supermarkets, towards the independents and the majors has been attributed to the unusual pricing behaviour of Coles Express. In recent years Coles Express adopted a high range pricing strategy.

Price by brand

Distinct price differences can be observed between retail brands. The table below shows the average RULP prices in Brisbane for June 2019⁶ split by site brand.

Brand	Network-wide average RULP retail price
Coles Express	147.3
Freedom	145.5
Caltex	144.9
Unbranded	144.8
Liberty Oil	144.4
7-Eleven	144.3
BP	143.9
Puma	142.6
Woolworths	142.1
Pacific Petroleum	141.3
Shell	140.7
United	139.5
Metro	134.4

In June 2019, Metro Petroleum offered the cheapest RULP at an average of 134.4 cpl, 7.5 cpl below the June average of 141.9cpl. Coles Express was the dearest at 147.3cpl, 5.4cpl dearer than the average and 12.9cpl dearer than Metro Petroleum. While Metro is the cheapest retailer, it is a relatively new addition to the Queensland market and with only seven sites in south-east Queensland.

The Queensland Government's fuel price reporting trial

Starting in December 2018, the Queensland Government's two-year mandatory fuel price reporting trial aims to promote consumer choice and education by requiring all retailers to publish their fuel prices. Retailers are required to report all price changes within 30 minutes

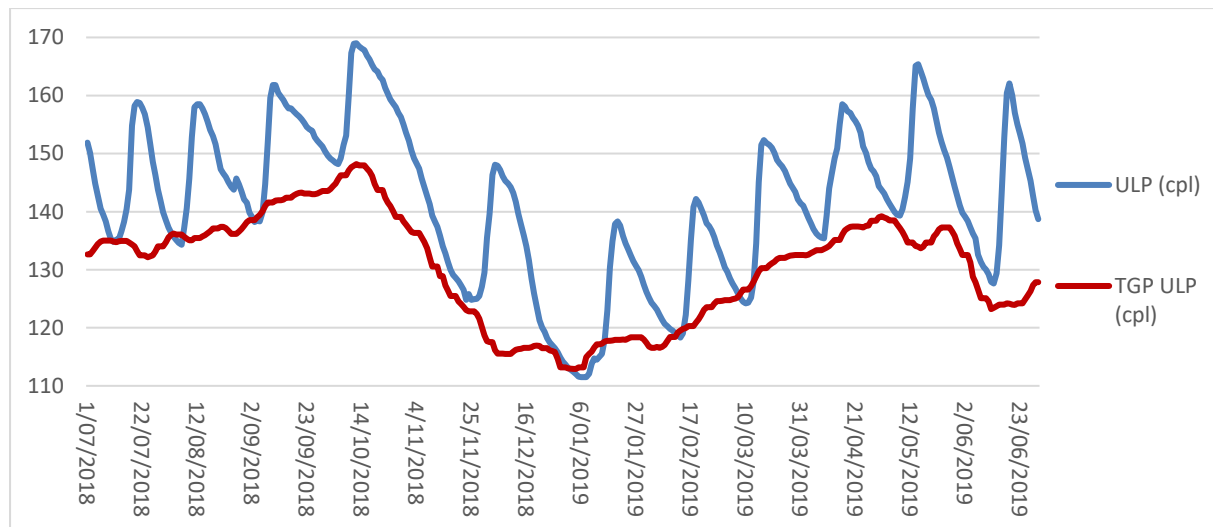
⁵ Source: ACCC 2018, "Retail and wholesale petrol market shares in Australia", Commonwealth of Australia

⁶ Due to data limitations average price by brand could not be calculated for the whole of 2018/19. June 2019 has been used instead.

of the change at the bowser. An aggregation service – Fuel Prices Queensland – run under the auspices of the Queensland Government, collects and provides the data to be published on third-party apps and websites. RACQ’s price comparison serves, the Fair Fuel Price website and Fuel Finder smartphone app can be found here: www.racq.com/fairfuel.

Price cycles

In Brisbane and most of the other Australian capital cities, the retail price of all petrol blends fluctuates according to a price cycle. In the chart below, the blue line shows the daily average retail price and the red line shows the average terminal gate price of RULP sold in Brisbane.



Prior to 2010, the Brisbane petrol price cycle lasted 7 days. As a result, the cheapest and dearest days for fuel purchases fell on the same day each week. Since mid-2010, the length of the cycle has extended. In late 2014 the first month long cycle was observed. In 2018/19 the average cycle length was 32 days, the shortest was 22 days and longest 49 days.

The fuel price cycle in Queensland is only observed in the metropolitan areas in south-east Queensland. The area affected by the price cycle extends north along the Sunshine Coast ending at Noosa, south along the Gold Coast extending to Tweeds Heads in northern NSW, and west to Ipswich.

Outside south-east Queensland, the price of petrol remains stable from day-to-day. When prices change, it is in response to changes in the price of oil and the TGP. LPG and diesel are not affected by price cycles as these prices remain relatively stable.

Outside Queensland, petrol price cycles occur in Sydney, Melbourne, Adelaide and Perth. The Sydney, Melbourne and Adelaide cycles are similar in duration and amplitude to the Brisbane cycle, but often have different timing (that is, these cities are not all cheap or expensive at the same time). Perth is the only city with a weekly fuel price cycle. Prices in Perth are regulated through the state government FuelWatch program. Retailers must notify FuelWatch by 2:00pm daily of the prices they intend to charge the next day. These prices are then fixed for 24 hours.

Price cycles occur in a few other countries. For example, some towns and cities in Canada and the US have price cycles. However, these cycles tend to be shorter and with a smaller

amplitude compared to those observed in Australia. The majority of large overseas cities do not have a price cycle and prices slowly rise and fall as price of oil changes.

Ethanol Blended Petrol and the Queensland Ethanol Mandate

E10 and E85 are liquid fuel blends of regular mineral petroleum and ethanol. E10 contains up to 10% ethanol and 90% mineral petrol, and E85 contains up to 85% ethanol and at least 15% petrol. Ethanol blended fuels are offered as an alternative to mineral petrol and are used to reduce the amount of mineral fuel consumed.

Most, but not all, cars manufactured after 1986 can safely use E10 instead of Regular 91 RON unleaded petrol. The Queensland Government E10OK website (www.e10ok.com.au) provides a tool for checking E10 compatibility. Another list of vehicles can be found [here](#) on the Federal Chamber of Automotive Industries website – www.fc.ai.com.au. Currently, very few cars sold in Australia are designed to run on E85. E85 is only available at a handful of Caltex and United sites.

Since its introduction on 1 January 2017 the Queensland biofuels mandate has required liable retailers to sell a prescribed volume of ethanol and biodiesel. The Queensland mandate currently requires 4% of the combined sales volume of RULP and Ethanol Blended Petrol (EBP) to be ethanol. In effect, this requires at least 40% of combined RULP and EBP sales to be E10. In addition, 0.5% of all diesel is required to be bio-based diesel.

The lower energy content of E10 compared to RULP and modest price difference makes E10 less cost effective than RULP. In Brisbane, in June 2019 the average price of E10 was 2.0 cpl less than RULP. While E10 appears a cheaper fuel option, cars use about 3% more E10 compared to RULP. For most cars, the cost of increased fuel consumption will be greater than the savings from buying E10. At current prices, E10 would need to be 4.2 cpl cheaper than RULP before it became more economical to buy.

Diesel

The price of diesel remains relatively stable throughout Queensland. Unlike RULP, diesel prices do not follow a price cycle. The retail price of diesel is made up of similar components to RULP. Costs include the crude oil, excise and GST, distribution costs, and refiner, wholesale and retail margins.

LPG

The pricing structure for LPG is substantially different from ULP and diesel. The retail price of LPG includes the cost of the propane and butane gas that has been blended to make LPG, as well as taxes and margins. RACQ is unable to access the data required to calculate LPG retail, refiner and wholesale margins, but can estimate total gross margins and costs based on the international benchmark price – the Saudi Aramco Contract Price (Saudi CP).

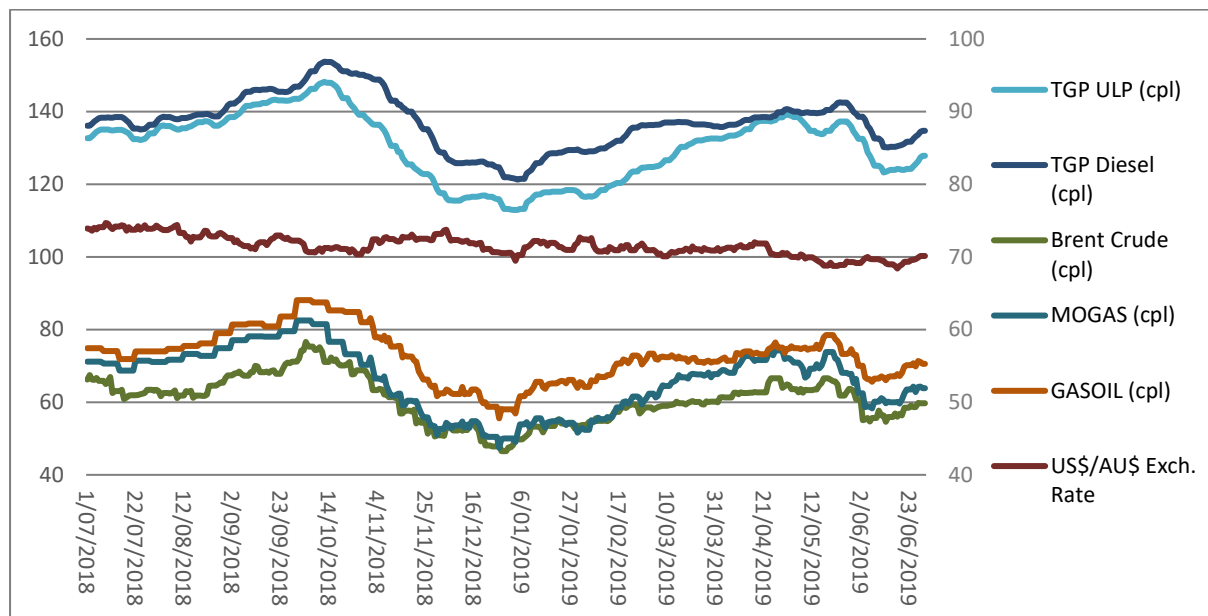
The Saudi CP is set monthly and is the average of all wholesale contracts for the previous month negotiated by the Saudi Arabian, state-owned, Saudi Aramco Company. While this benchmark tends to move with the price of oil, it is also strongly affected by seasonal variations. Propane and butane (the gases that make up LPG) are also used for domestic heating in the northern hemisphere, subsequently the Saudi CP is usually higher during the northern winter months.

The average retail price of LPG in Brisbane in 2018/19 was 87.6 cpl. The average difference between the Brisbane retail LPG price (excluding excise and GST) and the Saudi CP – the indicative gross margin was 28.1 cpl. Indicative gross margins and retail prices were substantially higher than historic prices relative to the Saudi CP. Historic indicative gross margins were about 20 cpl.

Benchmark prices

Prior to 1998, government regulation pegged the TGP in Australia to the Singapore wholesale price. Today the price of fuel in Australia is no longer regulated. However, the TGP closely tracks Singapore wholesale prices of fuel (MOGAS for unleaded petrol and GASOIL for diesel). In turn, MOGAS and GASOIL strongly follow the price trend of the international crude oil benchmark oil – Brent.

The chart below shows the Brent crude price, the Singapore MOGAS and GASOIL prices, the Brisbane RULP and diesel TGP (all displayed as A\$ cpl), and the US\$/A\$ exchange rate (displayed on the right axis as US\$ per A\$). The difference between the Singapore and Brisbane TGP is refiner and wholesale margins, shipping costs, excise and GST.



Conclusion

Affordable motoring is important for Queenslanders and the price of fuel is a key component in the cost of motoring. While there is little RACQ can do to influence the underlying price of crude oil, RACQ will continue to exert pressure on the fuel industry and the ACCC to keep fuel margins reasonable, and on government to ensure taxes and fuel excise are not disproportionately increased.

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