IPART Independent Pricing and Regulatory Tribunal | NSW

Monitoring the retail market for E10 2024

Final Report

August 2024

Transport »

Acknowledgment of Country

IPART acknowledges the Traditional Custodians of the lands where we work and live. We pay respect to Elders both past and present.

We recognise the unique cultural and spiritual relationship and celebrate the contributions of First Nations peoples.

Tribunal Members

The Tribunal members for this review are:

Jonathan Coppel, Acting Chair
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The Independent Pricing and Regulatory Tribunal

IPART's independence is underpinned by an Act of Parliament. Further information on IPART can be obtained from IPART's website.

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Summary

The sale of biofuels in NSW is regulated by the *Biofuels Act 2007* (NSW) (Biofuels Act) and the Biofuels Regulation (No 2) 2016 (the Regulation). The primary objective of the Act is to support the development of a sustainable and competitive biofuels industry in NSW,[1] as well as:

- improve air quality
- address climate change by reducing greenhouse gas emissions
- provide consumers with cheaper fuel options
- reduce the reliance of NSW on imported petroleum products
- support regional development.[2]

The Act seeks to achieve these objectives by requiring "volume fuel retailers"[a] to take certain steps to promote E10, which contains ethanol, including:

- make a petrol-ethanol blend ("E10") available for sale[3] and as accessible as regular unleaded petrol ("U91") ("availability and accessibility requirement")[b],[4]
- ensure that at least 6% of the petrol sold is ethanol ("ethanol mandate")[5]

Under the Biofuels Act, the Independent Pricing and Regulatory Tribunal (IPART) must report on the retail market for E10.[6] Our last market monitoring report was provided to the Minister for Fair Trading in September 2021.[7] This market monitoring report provides an update on the changes that have occurred in the wholesale and retail fuel markets since that report was completed, and contains our analysis on the effect that IPART's wholesale price determinations have on the retail market for E10.

We have found that in New South Wales, all volume fuel retailers promote E10 fuel as required by the Act or have an exemption from doing so under the Act.

In general, the retail price of E10 is discounted relative to the retail price of unleaded fuels. The prevailing average level of discount compared to regular unleaded fuel is approximately 2.1 c/L.[8] There is some commentary that E10 is about 3% less efficient than non-premium unleaded petrol, but contains a higher level of octane than E91. IPART understands that the relative efficiency of E10 and non-premium unleaded petrol depends on a number of factors including the engine of the vehicle and the way the engine has been tuned.

[a] Under Biofuels Act 2007 (NSW), ss. 3 and 4A, and Biofuels Regulation 2022 (NSW), cl 5-6.volume fuel retailers are persons or business that:
- operates or controls one or more volume fuel service stations — a service station that sells three or more types of petrol or diesel and sells more than 1,800,000 litres of petrol and diesel combined every six months for two consecutive periods, or
- operates or controls the operation of 20 or more service stations, none of which are volume fuel service stations

[b] If U91 is not available, it must be made as accessible as another type of petrol that is available.

The retail price of E10 has increased and sales have fallen

At the time we prepared our last market monitoring report, NSW was coming out of its second major COVID-19 lockdown. In the intervening period there has been a marked change in the conditions prevailing in both the wholesale and retail fuel markets.

At the end of March 2024, E10 prices were significantly higher than what they have been in recent years:

- the wholesale price of E10 (169.5 c/L) was 1.5 times higher than it was prior to the pandemic and 2.2 times higher than the lows observed during the pandemic
- the retail price of E10 (195.2 c/L) was 1.4 times higher than it was prior to the pandemic and 2 times higher than the lows observed during the pandemic.

These increases were similar to the prices changes of unleaded fuels. This is to be expected as unleaded fuel makes up 90% to 91% of E10 (with ethanol making up the other 9% to 10%). The increases are largely the result of higher global oil prices.[9]

Fuel sales in NSW have recovered from the lows observed in the 2020-2021 lockdowns, but remain around 10% lower than they were in 2019 prior to the pandemic.[10] This is likely a result of the increased uptake of more full-efficient, hybrids and electric vehicles, which is expected to continue in the future. E10 sales have fallen by around 20% since their pre-pandemic levels, and it now makes up around 22% of fuel sales (down from 25% in 2019).[11] This is just over a third of what would be required to meet the ethanol mandate.

E10 continues to be widely available and accessible in NSW

As at April 2024, 72% of the service stations in NSW were supplying E10, with those service stations located throughout regional and metropolitan areas of NSW. E10 was as accessible as U91 at those service stations subject to the Biofuels Act, with over 50% of the nozzles at those service stations dispensing E10.

The availability and accessibility of E10 has provided consumers in NSW with more choice and a greater ability to switch between fuels. The exercise of this is choice has been supported by services, such as the NSW Government's FuelCheck website and app.

Retailers have continued to sell E10 at a discount to U91, even though there were 2 relatively prolonged periods in which the wholesale price of E10 exceeded that of U91.[12]

Our wholesale price determinations are not intended to constrain ethanol prices, but do provide retailers with protection

Under the Biofuels Act, IPART also has a role to determine, and periodically review, a reasonable wholesale price for ethanol for use in the production of a petrol-ethanol blend.[13] Our retail market monitoring reports must report on the effect of a reasonable wholesale price determination on that market.

Our reasonable wholesale ethanol price determinations do not place a cap on the price that ethanol producers can charge.[c,14] The price is instead determined through negotiations between ethanol producers and fuel wholesalers. If the price agreed to by producers and fuel wholesalers exceeds our determination, then a retailer may apply for an exemption from the ethanol mandate.[15]

While historically, the price agreed to by ethanol producers and fuel wholesalers has been below the prices that we have determined, since mid-2021 the wholesale price is likely to have exceeded our determined price on a number of occasions.[d] There has also been an increase in the prevalence of the wholesale price of E10 exceeding that of U91.

As noted above, retailers have continued to sell E10 at a discount to U91 during this period, absorbing the higher wholesale prices. This is likely to reflect that retailers are required to make ethanol available, and due to the lower efficiency of E10, most consumers will only choose to buy it if it is sold at a discount to U91.

If high wholesale ethanol prices persist and absorbing the cost differential becomes financially unsustainable for retailers, then they could consider other options, including importing ethanol or raising the retail price of E10. Retailers also have the option of applying for an exemption from the ethanol mandate on the basis that it is not economically viable because the wholesale price of ethanol exceeds our determination, as 1 retailer has already done.[16]

While all retailers that are subject to the Biofuels Act currently have an exemption from the ethanol mandate, most have obtained the exemption on the basis that they have taken all of the prescribed steps to comply.[17] This includes, having arrangements in place to secure, on a continuing basis, sufficient ethanol or E10 to comply with the mandate. Retailers with an exemption on this ground can therefore still be exposed to higher wholesale ethanol prices.

Obtaining an exemption because the wholesale ethanol price exceeds our determined price, could therefore provide retailers with a greater level of protection than they may otherwise have under their existing exemption.

[c] If the wholesale price exceeds this level, it can also be used as a defence to the offence of failing to comply with the ethanol mandate ethanol mandate. Biofuels Act 2007 (NSW), s 9A(2)(c)(i)

[d] There is no publicly available information on the price that ethanol producers charge for fuel-grade ethanol. We have therefore had to estimate the price using terminal gate prices for U91 and E10 and a number of other assumptions.

Findings

1 Introduction

The *Biofuels Act 2007 (NSW)* (Biofuels Act) was implemented in 2007 to support the development of a sustainable and competitive biofuels industry and to meet a range of other objectives, including improving air quality, reducing emissions and providing cheaper fuel options.[e,18] The Biofuels Act applies to volume fuel retailers, which are retailers that operate or control the operation of:[19]

- a 'volume fuel service station', which is a service station at which:
  - 3 or more types of petrol or diesel are available for sale, and
  - the total volume of petrol and diesel sold by the retailer exceeds 1.8 million litres in each half-year period for 2 consecutive periods.
- 20 or more service stations, none of which are volume fuel service stations.

Amongst other things, the Biofuels Act requires non-exempt volume fuel retailers to:[f]

- make petrol-ethanol blend available for sale[20] and as accessible to customers as U91[g,21]
- ensure that ethanol accounts for at least 6% of the total volume of petrol sold.[22]

The main petrol-ethanol blend that is sold In NSW is E10, which comprises 9-10% ethanol and 90-91% U91.[h] This means that in order for the ethanol mandate to be met, around 60% of fuel that is sold must be E10. Box 1.1 provides further detail on E10.

Box 1.1 E10 petrol-ethanol blend

E10 is a regular unleaded petrol that is blended with 9 to 10% ethanol in accordance with Australian fuel quality standards.

The inclusion of ethanol in this blend has been found to reduce greenhouse gas emissions, by producing between 2 to 5% lower carbon dioxide emissions than regular unleaded petrol.[23]

In compatible vehicles, the use of E10 should reportedly have no "noticeable change to performance or drivability".[24] It does, however, have around 3% less energy than the equivalent amount of U91, which has been estimated to result in an average increase in fuel consumption of around 3%.[25]

e Including improving air quality, reducing emissions, providing cheaper fuel options, supporting regional development.

f Section 7 of the Biofuels Act also requires non-exempt fuel retailers to ensure that at least 5% of the total volume of diesel sold is biodiesel.

g If U91 is not available, it must be made as accessible as another type of petrol that is available.

h A small number of service stations also sell E85. E85 is a specialist fuel that can be used in high performance vehicles and comprises 85% ethanol and 15% petrol.

Box 1.1 E10 petrol-ethanol blend

While E10 is not as fuel efficient as U91, E10 does have a higher octane rating, which increases engine efficiency. This is because ethanol is an oxygenate (i.e. its molecules contain oxygen), which means that there is a more complete burn of the available fuel.[26]

Sources: NSW Government, E10 facts website and Queensland Government, *Using E10 in your vehicle website*.

1.1 IPART has 2 key functions under the Biofuels Act

Since 2017, the Biofuels Act has required IPART to perform the following functions:

- Reasonable wholesale ethanol price determination function: Section 17A(1)(a) of the Biofuels Act requires us to determine, and periodically review, a reasonable wholesale price for ethanol for use in the production of petrol-ethanol blend.
- A market monitoring and reporting function: Section 17A(1)(b) of the Biofuels Act requires us to monitor the retail market (including prices) for petrol-ethanol blend and report to the Minister on the effect of a reasonable wholesale price determination on that market.

We determine the reasonable wholesale price for ethanol based on what it would cost to import the ethanol from overseas suppliers (the "import parity price"). We adopted this approach in our first determination, which was made in late 2016 following a detailed review of the various pricing methods that could be employed that was carried out in consultation with stakeholders.[27]

In the intervening period, we have made 20 determinations on the reasonable wholesale price for ethanol and have also periodically reviewed our approach to determining this price.[28] We are currently determining prices every 6 months, with our most recent determination applying from March 2024.[29]

Over the same period, we have provided the Minister for Fair Trading (Minister) with a number of market monitoring reports. Our last market monitoring report was prepared during the height of the COVID-19 pandemic and provided to the Minister in September 2021.[30]

1.2 Purpose and structure of this market monitoring report

In keeping with the Biofuels Act, this report sets out the results of our monitoring of:

- the conditions prevailing in the retail market for E10 (including prices) and the changes that have occurred in this market since our last report was completed
- the effect of our determination of a reasonable wholesale price for ethanol on the retail market for E10.

To help inform this report, we released a consultation paper on 1 March 2024. We received 2 confidential submissions in response to this consultation paper. Due to the confidential nature of these submissions, they are not referred to any further in this report.

The remainder of this report, sets out the results of our review and is structured as follows:

- Chapter 2 summarises the market for ethanol on the East Coast of Australia
- Chapter 3 provides an overview of recent trends in wholesale and retail fuel markets in terms of both the prices and volumes of unleaded fuel sold
- Chapter 4 describes the current retail market for E10
- Chapter 5 provides further detail on how we determine the reasonable wholesale price for ethanol and the effect our determinations are having on the retail market for E10.

2 Ethanol production on the East Coast

The Australian ethanol industry operates at three broad levels: production, wholesale and retail, summarised in Figure 2.1. Ethanol producers distil pure ethanol from feedstock and sell it to fuel wholesalers who blend the ethanol with petrol to make E10. The E10 is then distributed to retail outlets.

Many of the fuel retailers in NSW are also vertically integrated refiner-wholesalers. They refine and wholesale petrol, as well as sell petrol under their brand at the retail level (for example, BP, Ampol, Mobil and Viva Energy/Shell).

Figure 2.1 Supply chain for fuel ethanol

While fuel wholesalers have the option of importing fuel-grade ethanol from overseas, they have not done so date. This is likely because of the excise subsidy that is available to domestic ethanol producers, which usually results in locally produced ethanol being the lower cost option.

2.1 Competition in the wholesale ethanol market

Following the closure of United Petroleum's Dalby Bio-Refinery in 2020,[31] there are now just 2 fuel-grade ethanol producers in the east coast of Australia:[32,i]

- Manildra, who uses residual starch from wheat to produce ethanol, at its 300 megalitre (ML) plant in the Shoalhaven area in NSW
- Wilmar Sugar, who uses molasses (a by-product of its sugarcane production) to produce ethanol at its 60 ML plant in the Sarina area in northern Queensland.

No new projects have progressed beyond the pilot stage.

[i] Manildra and Wilmar Sugar produce ethanol for use in a range of other applications, including food and beverage products, pharmaceuticals and personal care products, industrial solvents, chemicals and other industrial applications.

At a state level, approximately 108 ML of fuel-grade ethanol was sold in NSW in 2023, 57 ML was sold in Queensland[j] and 30 ML was sold in Victoria.[33] While there is no publicly available information on which producers supplied which locations. based on both the capacity and location of the ethanol production facilities, it is likely that Manildra supplied most of the fuel-grade ethanol in NSW and Victoria, while Wilmar Sugar supplied Queensland.

With just 2 fuel-grade ethanol producers now operating in the east coast, the market for the wholesale supply of ethanol in NSW is highly concentrated, with Manildra accounting for around 74 to 75% of industry revenue between 2020 and 2024.[34]

The concentrated nature of this market stems from the relatively high (but not insurmountable) barriers to entry that prospective new entrants would face if they were to try and enter the market. These barriers include both the high capital costs associated with establishing new production facilities and the need to be able to access sufficient volumes of feedstock at competitive prices.[35] The feedstock used by Manildra and Wilmar Sugar is a byproduct from other parts of their operations. They are therefore likely to have a competitive advantage over new entrants.

It is unlikely that new entry into this market will occur in the short to medium term, given:

- there is substantial excess domestic production capacity - in 2023, around 196 ML of fuel-grade ethanol was sold in the east coast of Australia, which represents just over 50% of the combined capacity of Manildra and Wilmar Sugar[36,37]
- the reported reduction in profitability of local ethanol production[38], due to:[39]
  - competition between producers, both of whom have excess productive capacity
  - the impact of COVID-19 in 2020-2021
  - the increased volatility of global oil prices and higher feedstock costs[k]
- the demand by motorists for E10 has fallen significantly (see section 3.4).

While competition in the wholesale market is currently limited, ethanol producers are likely to face greater constraints on their pricing going forward as the uptake of electric vehicles increases and the demand for E10 (and other fuels) continues to decline.

Findings

1. The wholesale ethanol market is highly concentrated, with just 2 ethanol producers competing to supply fuel grade ethanol in the east coast. New entry is unlikely to occur in the short- to medium-term, if at all.

[j] Queensland is the only other Australian state that has a biofuels mandate. Since July 2018 it has required that 4% of all fuel sold must be ethanol and 0.5% of all diesel must be biodiesel. Queensland Government, Business Queensland, Queensland biofuels mandates, accessed June 2024.

[k] Ethanol feedstock accounts for around 70-85% of an ethanol producer's costs. Wheat and sugarcane prices changed significantly over the period since 2020. Wheat prices more than doubled in 2022, and sugar prices reached a 10-year high in 2023. However both sugar and wheat prices have since reverted close to 2020 prices. Energy Quest, *Benchmarking the price of fuel ethanol in Australia*, July 2010, p 13; NAB, *Rural Commodities Wrap*, May 2024, p 7, Financial Times, *Commodity prices*, accessed June 2024 and International Energy Agency, *Renewable Energy Market Update Outlook for 2023 and 2024*, June 2023, p 79.

3 Recent trends in wholesale and retail fuel markets

At the time we prepared our last market monitoring report, NSW was coming out of its second major COVID-19 lockdown. In the intervening period, wholesale and retail fuel prices in NSW, have increased significantly, largely as a result of higher global oil and ethanol feedstock prices.

The volume of fuel sold in NSW has also recovered from the lows observed during the COVID-19 pandemic, but is substantially lower than the volume sold prior to the pandemic; likely a result of the increased uptake of more fuel-efficient, hybrid and electric vehicles.

This chapter provides further detail on the changes that have occurred in wholesale and retail fuel markets in NSW since our last market monitoring report.

3.1 Wholesale fuel prices have more than doubled since COVID-19

In Australia, wholesale fuel prices, which are also referred to as terminal gate prices (TGP),[l] are heavily influenced by both global crude oil prices and the exchange rate.[m,n]

Over the last 5 years, the major influences on global crude oil prices have been:[40]

- the COVID-19 pandemic
- geo-political events, such as the Russian-Ukraine and Middle East conflicts
- economic conditions that have affected the demand (or outlook for demand) for crude oil
- factors that have affected crude oil production, including agreements by the Organisation of the Petroleum Exporting Countries (OPEC) and other oil producing countries (OPEC+) to increase or reduce production.

The effect that some of these factors have had on the Sydney TGP for U91, E10 and premium unleaded fuels can be seen in Figure 3.1. As it shows, the TGPs for each of these fuels have increased significantly since our last report, with TGPs at the end of March 2024 being around:[41]

- 1.4 to 1.5 times higher than they were prior to the pandemic:
  - the E10 TGP increased from an average level of 116.7 c/L in 2019 to 169.5. c/L
  - the U91 TGP increased from 117.7 c/L to 169.3 c/L and premium TGP increased from 125.9 c/L to 178.5 c/L.[42]

[l] Terminal gate prices are the prices at which petrol can be purchased from wholesalers in the market. The difference between the terminal gate price and the retail price includes the cost of transporting fuel, and retail operating costs such as rent, wages and utility costs. ACCC, *Financial performance of the Australian downstream petroleum industry 2002 to 2018,* April 2020, p 7.

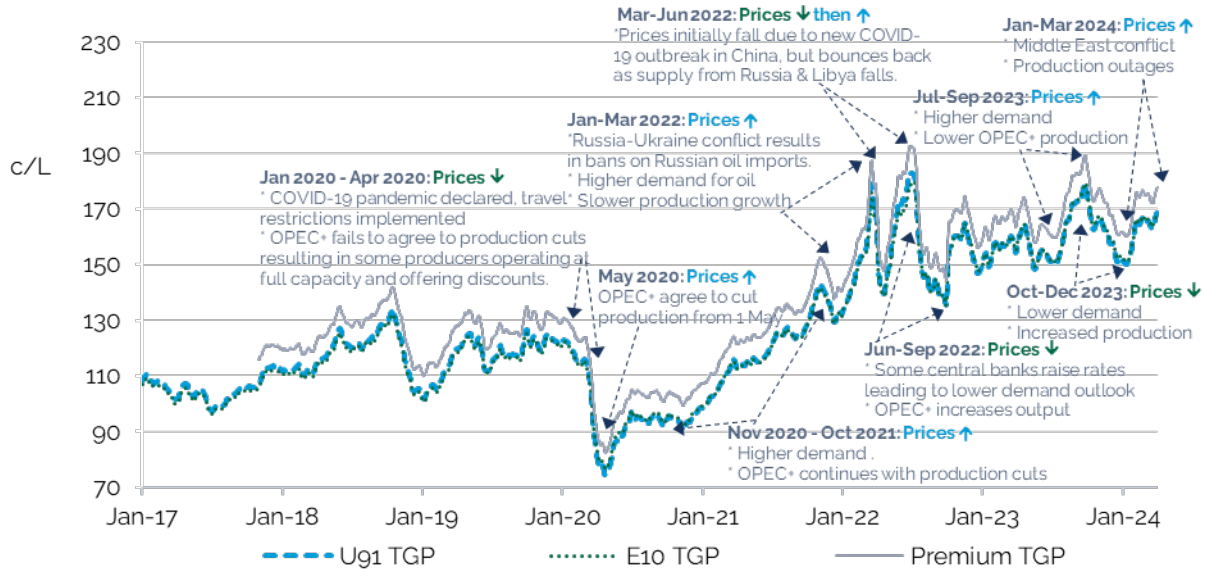
[m] The exchange rate has an influence on these prices because oil prices are bought and sold in US dollars.

[n] These prices will also be affected by excise and wholesale goods and services tax, other wholesale costs and margins (which includes international shipping costs and other import costs, and wholesale costs and margins). ACCC, *Report on the Australian petroleum market, March quarter 2024*, June 2024, p 4.

- 2.2 to 2.3 times higher than they were during the lows observed in the pandemic. Since mid-April 2020:
  - the E10 TGP increased from 76 c/L to 169.5 c/L
  - the U91 TGP increased from 74 c/L to 169.3 c/L and the premium TGP increased from 82.1 c/L to 178.5 c/L.

While not shown in Figure 3.1, another factor that had an important bearing on both wholesale and retail fuel prices over this period, was the decision by the Commonwealth Government to reduce the fuel excise by 50% between 1 April 2022 and 29 September 2022.[43]

Figure 3.1 Sydney terminal gate prices ($nominal, ex GST, 7 day rolling average, January 2017 to March 2024)



Note: Data on premium unleaded TGPs is only available from mid-2017.
Source: Daily average Sydney TGPs for regular unleaded, premium unleaded and E10 from FuelTrac. Information on key events affecting global crude oil prices based on information contained in the ACCC's reports on the Australian petroleum market for the June quarter 2022, March quarter 2023 and March quarter 2024.[44]

Findings

2. Wholesale prices of unleaded fuels in NSW at the end of March 2024 were 1.4 to 1.5 times higher than they were prior to the pandemic and over 2 times higher than they were during the lows observed in the COVID-19 pandemic.

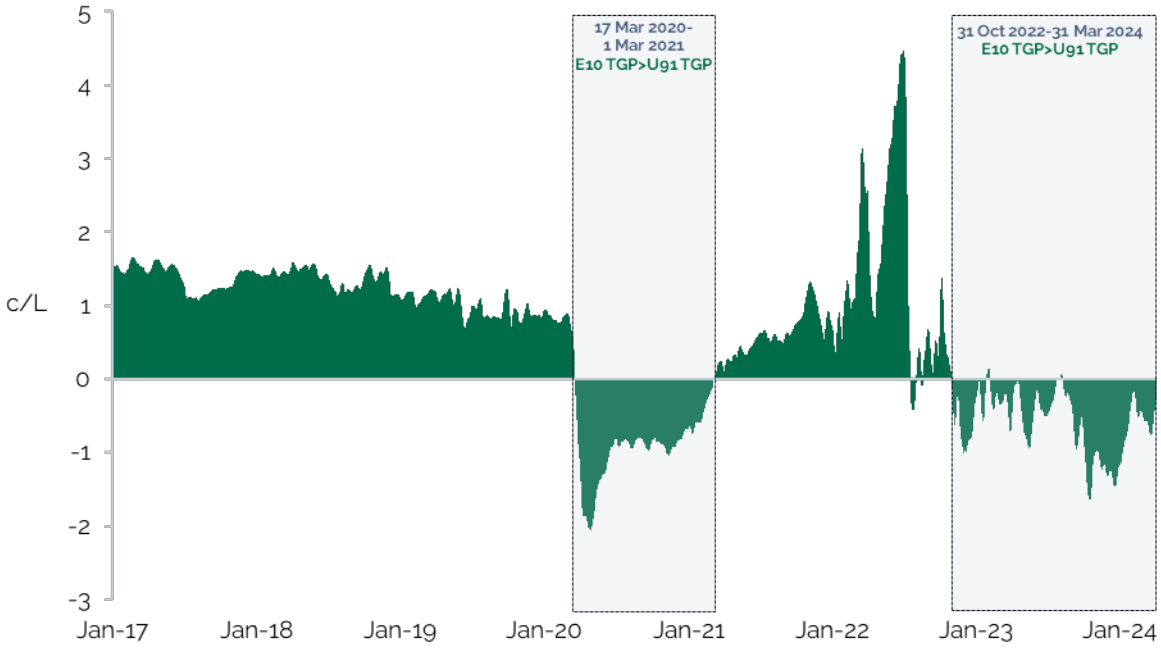
3.2 The wholesale price of E10 has at times exceeded that of U91

As Figure 3.1 shows, the wholesale price of E10 closely tracks that of U91. This is because E10 comprises 90% to 91% unleaded petrol, with ethanol making up the remaining 9% to 10%.

Historically the wholesale price of E10 has been lower than U91, however, this relationship started to change in early 2020, when the wholesale price of E10 started to exceed that of U91. As Figure 3.2 shows, there have now been 2 relatively prolonged periods where the E10 TGP exceeded the U91 TGP:

- 17 March 2020 to 1 March 2021
- 31 October 2022 to 31 March 2024.[o]

Figure 3.2 Difference between U91 and E10 TGPs ($nominal, ex GST, 7 day rolling average, January 2017 to March 2024)



Source: Daily average Sydney TGP for regular unleaded and E10 from FuelTrac and IPART Wholesale ethanol price determinations between 1 January 2018 and 1 March 2024.

There is no publicly available information on the wholesale price of ethanol. The price and other terms and conditions on which ethanol is supplied are set out in commercially-in-confidence bilaterally negotiated contracts between ethanol producers and fuel wholesalers. While we have previously encouraged Manildra to publish its TGP for ethanol, it has not done so.[45]

As a result, IPART has not been unable to compare the wholesale price of ethanol directly to the price of U91, to confirm whether ethanol prices have increased above U91, leading to an E10 TGP that is higher than the TGP of U91.

[o] There were also some shorter term instances where this occurred in July and August 2022.

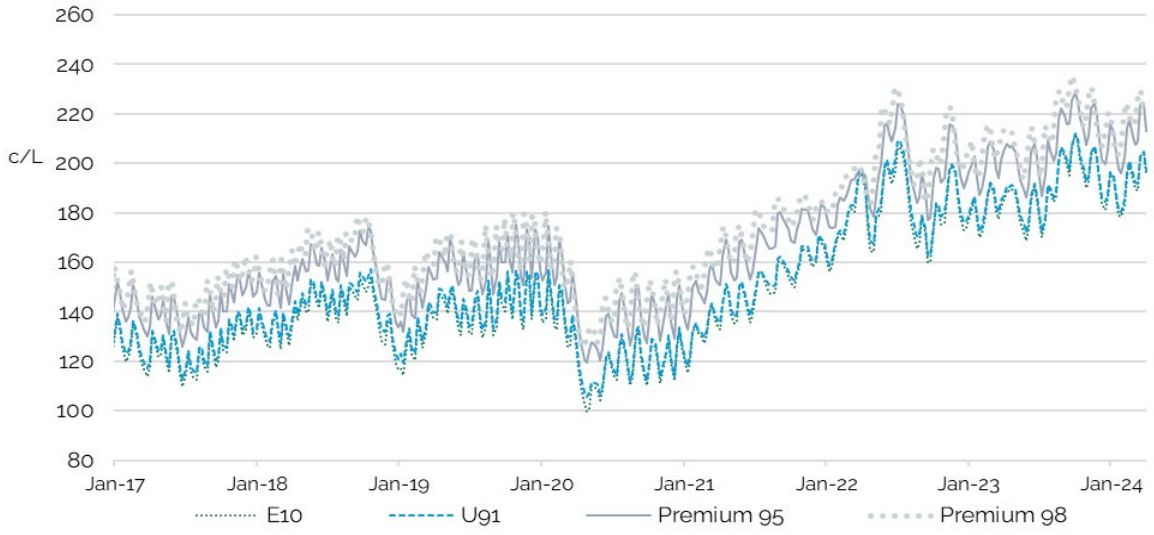
Manildra Group told us that its approach to setting prices for fuel ethanol had not changed compared to previous market monitoring reviews, including during periods identified by IPART where the TGP of E10 exceeded that of U91. Manildra told us that the higher prices of E10 TGPs are likely to reflect the pricing strategies of E10 wholesalers, rather than reflecting wholesale ethanol prices.[46] On the other hand, a fuel wholesaler has told us that the wholesale price of ethanol exceeded the supply price of U91 during both periods.[47]

3.3 Retail fuel prices have also increased significantly

In a similar manner to wholesale prices, retail prices of U91, E10 and premium unleaded fuels ("P95" or "P98") at the end of March 2024 were around (Figure 3.3): [48]

- 1.4 times higher than they were prior to the pandemic, with the retail price of E10 increasing from an average level of 138.7 c/L in 2019 to 195.2 c/L by the end of March 2024, while the retail price of U91 increased from 141.4 c/L to 197.1 c/L over this period.[49]
- 1.8 to 2 times higher than they were during the lows observed in the pandemic, with the price of E10 increasing from 99.5 c/L in April 2020 to 195.2 c/L by the end of March 2024, while the retail price of U91 increased from 105.7 c/L to 197.1 c/L over this period.

Figure 3.3 Retail fuel prices in NSW ($nominal, ex GST, weekly average, January 2017 to March 2024))



Note: We calculate average prices for the hours between 6 am and 10 pm, since very little petrol is sold outside these hours. As a check we calculate the average prices and price difference across all 24 hours and the results are very similar.

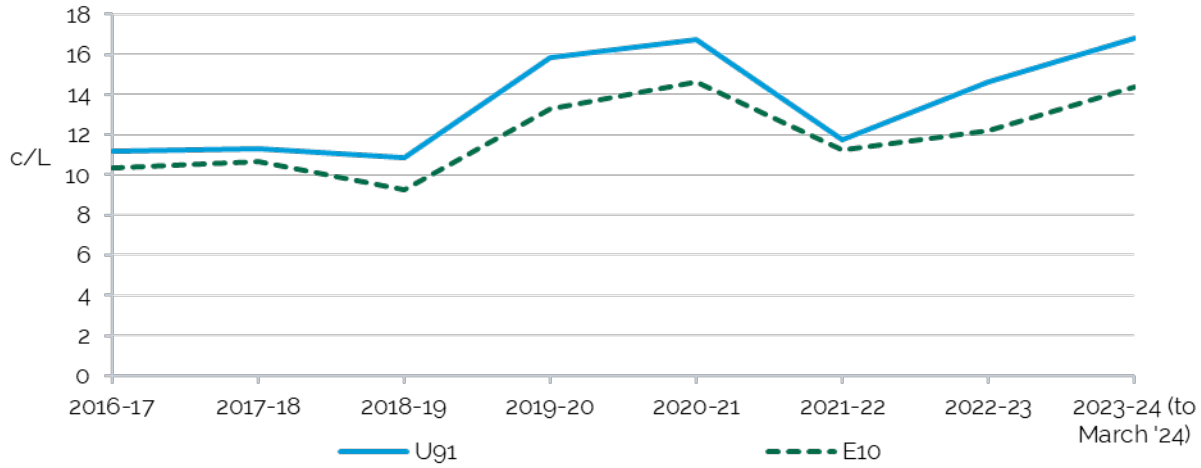
Source: NSW Government Open Data Portal, Datasets, *FuelCheck*, accessed May 2024.

While the wholesale price of E10 exceeded that of U91 between 2020 and 2024 (Figure 3.2), E10 remained the lowest cost fuel available to consumers in the retail market. Retailers absorbed the cost differential, so that E10 could continue to be sold at a discount to U91.

Retailers have historically sold E10 at a discount, because it has around 3% less energy than the equivalent amount of U91 (Box 1.1). Consumers will therefore only tend to view E10 as an economically viable substitute if it is sold at a sufficient discount to U91.

Figure 4.3 shows the difference between the retail price of fuels and the terminal gate price. This amount covers the costs of transporting the fuel from the terminal to the bowser, administrative and marketing costs and service station running costs, and a retail margin. It shows that the difference is lower for E10, compared to U91, and the gap has generally widened since 2018 (with less of a difference in 2022).

Figure 3.4 Difference between the average retail price and terminal gate price for U91 and E10 (2016-17 to 2023-24, including GST)



Source: NSW Government Open Data Portal, Datasets, *FuelCheck*, accessed May 2024, Daily average Sydney terminal gate prices for U91 and E10 from Fueltrac.

Findings

3. Retail prices of unleaded fuels at the end of March 2024 were around 1.4 times higher than they were prior to the pandemic and 1.8 to 2 times higher than the lows observed during COVID-19 pandemic.

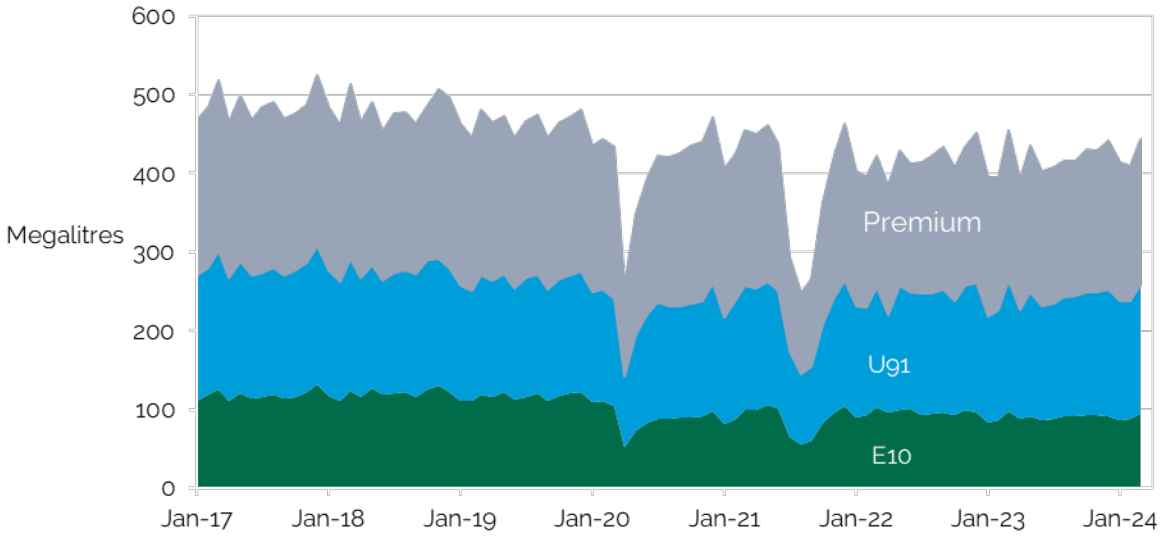
4. The wholesale price of E10 has exceeded that of U91 for 2 relatively prolonged periods since 2020 (17 March 2020 to 1 March 2021 and 31 October 2022 to 31 March 2024). However the retail price of E10 continues to be lower than U91.

3.4 Fuel sales in NSW remain lower than pre-pandemic levels

During the major COVID-19 lockdowns that occurred in March to April 2020 and July to August 2021, fuel sales in NSW fell by 41% and 43%, respectively.[50] While the volume of fuel sold in NSW has recovered from these lows, it was around 10% lower in 2023 than the pre-pandemic levels (Figure 3.5).[51]

On an individual fuel basis, the story was more mixed. U91 sales increased by 2% between 2019 and 2023, while E10 sales fell by 23% and premium fuel sales fell by 12% over this period.[52]

Figure 3.5 Total volume of fuel sold in NSW (January 2017 – March 2024)



Source: Department of Climate Change, Energy, the Environment and Water (DCCEEW), Australian Petroleum Statistics - Data extract, March 2024.

While fuel sales in 2023 were lower than they were prior to the COVID-19 pandemic, the number of vehicle kilometres travelled in NSW has remained relatively stable.[53] This reduction in fuel sales appears therefore to reflect the increased uptake of more fuel-efficient, hybrid and electric vehicles in NSW.[p,54]

Recent estimates published by the Electric Vehicle Council, suggest there are now over 180,000 electric vehicles on Australian roads, which represents around 1% of the total light vehicle fleet in Australia.[55] These estimates also reveal that new electric vehicle sales have doubled every year since 2020, rising from around 9,000 in 2020 (or 0.8% of new light vehicle sales) to just under 100,000 (or 8.5% of new light vehicles sales) in 2023.[56] In NSW, new electric vehicle sales accounted for around 9% of new light vehicle sales in 2023, which is slightly higher than the national average of 8.5% and up from around 4% in 2022.[57]

[p] The fact that vehicle kilometres travelled did not grow over this period, while the number of registered vehicles in NSW grew by 8% and gross state product increased by 8% over this period, suggests that motorists are driving less than they used to. This could reflect a range of factors, including the increased prevalence of working from home and/or cost of living pressures.

Bureau of Infrastructure and Transport Research Economics, *Australian Infrastructure and Transport Statistics Yearbook 2023*, p. 147 and Australian Bureau of Statistics, *5220.0 Australian National Accounts: State Accounts*, Table *1*

Looking forward, the growth in electric vehicles is expected to continue, supported by a range of government measures, including the Commonwealth Government's New Vehicle Efficiency Standard and a range of other Commonwealth, state and territory government initiatives.[58] The CSIRO, for instance, has recently estimated that electric vehicles could account for 35% to 60% of new vehicle sales by 2030, depending on the assumptions made about Australia's decarbonisation pathway, and the economic and policy environment.[59]

The other interesting point to note from Figure 3.5 is that while premium fuel sales have fallen, they still account for the majority of fuel sold in NSW. For instance, in 2023 premium fuels accounted for over 40% of the fuel sold in NSW, which is substantially higher than other states and territories, where premium fuels account for 13 to 32% of fuel sales. [60]

Given that premium fuels are more expensive than U91 and E10 (Figure 3.3), this would tend to suggest that a reasonable number of motorists in NSW are more concerned about fuel quality than price and may not view U91 or E10 as close substitutes for premium fuels.[61] This may reflect that a large number of cars have high compression engines that require premium fuel.

Findings

5. Fuel sales in NSW have recovered from the lows observed during the COVID-19 pandemic, but are 10% lower than they were prior to the pandemic. This likely reflects the increased uptake of more fuel-efficient, hybrid and electric vehicles in NSW, which is expected to continue into the future.

4 Retail market for E10

The retail market for E10, which forms part of the broader retail fuel market in NSW, has been in operation for some time and is around 2 to 4 times larger than E10 retail markets in other states and territories.[q][62] The development of this market in NSW has been aided by the requirements in the Biofuels Act that retailers meeting the volume threshold must make:

- E10 available for sale at each of their volume fuel service stations[63]
- E10 as accessible U91 (or if U91 is not available, another type of petrol).[64]

This chapter provides further detail on the role the Biofuels Act has played in supporting the development of the E10 retail market in NSW, the choices that consumers in NSW now have and what has happened to retail prices, and sales in this market since our last report.

4.1 The Biofuels Act has made E10 widely available and accessible

There are currently over 900 service stations in NSW that are subject to the requirements of the Biofuels Act. These are operated by close to 200 'volume fuel retailers'.[65]

As outlined in further detail in Box 4.1, all of volume fuel retailers have obtained an exemption from the ethanol mandate, but most are still subject to the availability and accessibility requirement.

In April 2024, approximately 72% of service stations in NSW (including those that weren't subject to the Biofuels Act) were offering E10.[66] Those service stations offering E10 include those operated by the major fuel retailers (e.g. 7-Eleven, BP, Caltex-Ampol, Chevron, United Petroleum and Viva Energy) as well as independent retailers.[67] These service stations are located in both metropolitan and regional areas of NSW, including in the Far West, Central West, New England, Northern Rivers, Mid-North Coast, Central Coast, Illawarra, Southern Highlands. South Coast and Murray River regions.[68]

[q] The only other states that have a retail market for E10 are Victoria and Queensland. Between 2020 and 2023, sales of E10 in Victoria were around a quarter of those in NSW, while in Queensland they were around half of those in NSW. DCCEEW, Australian Petroleum Statistics - Data extract, March 2024.

Box 4.1 Exemptions from the Biofuels Act

A retailer can apply for an exemption from the ethanol mandate on the grounds set out in the table below.

Table 4.1 Grounds for obtaining an exemption[69]

Exemption grounds	
1. The retailer has taken the following steps set out in the *Biofuels Regulations (NSW) 2022* to comply with the ethanol mandate: (a) upgrading the infrastructure required to distribute sufficient blend to comply (b) ensuring the availability of facilities for the sale of petrol-ethanol blend (c) securing, on a continuing basis, sufficient ethanol or petrol-ethanol to comply (d) marketing, on a continuing basis, petrol-ethanol blends, including by ensuring the price is conspicuously displayed on a sign alongside other fuels (e) ensuring that all E10 sold contains at least 9% ethanol.	
2. The retailer has otherwise taken all reasonable steps to comply.[70]	
3. It was not economically viable for the retailer to comply:	i because the wholesale price of ethanol exceeds IPART's determination of a reasonable wholesale price
	ii because of the price it was reasonably able to produce or obtain petrol-ethanol blend for retail sale
	iii on any other grounds (including grounds set out in the regulations):[71]

As at May 2024, all fuel retailers in NSW that are subject to the Biofuels Act had obtained an exemption from the ethanol mandate.[72]

Around 69% of these exemptions have been granted on the first ground listed in Table 4.1. That is, the retailer was unable to meet the mandate despite having taken all the prescribed steps required to comply, including installing the required infrastructure, having arrangements in place to procure sufficient E10 to comply and making E10 as available and accessible as other fuels.[73]

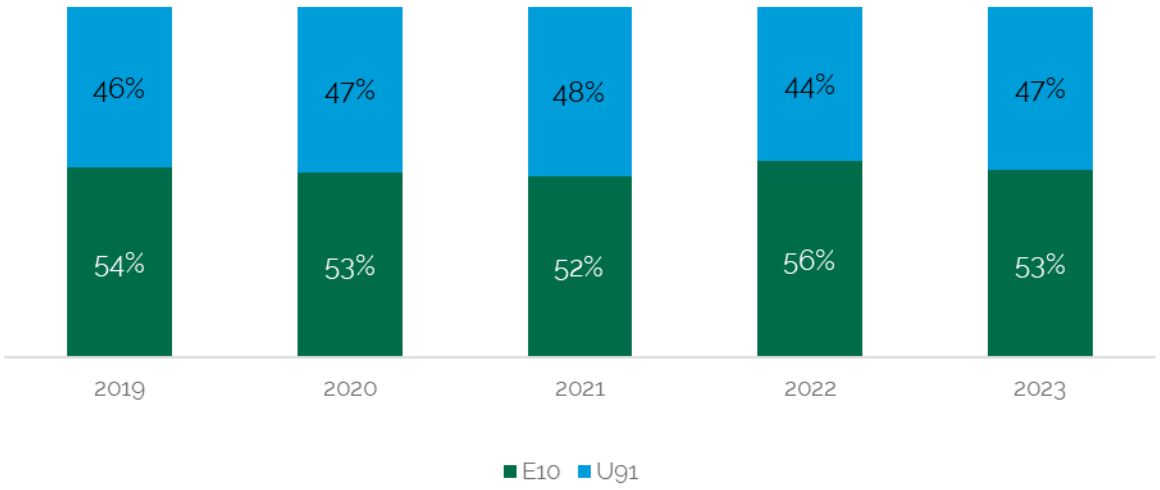
The remaining exemptions have either been granted because it was not economically viable for the retailer to comply (13%), or for other extraordinary circumstances (18%).[74]

One of the grounds that a retailer can obtain an exemption is because the wholesale price of ethanol exceeds our determination of the reasonable wholesale price (ground 3(i)).[75] We understand that only 1 retailer has obtained an exemption on this ground to date.[76]

The requirement for volume fuel retailers to make E10 as accessible as U91 (or if U91 is not available, another type of petrol) means the retailer must take reasonable steps to market E10, including advertising the price of E10 on their main price board alongside the price of other fuels.[77] The retailer must also make E10 nozzles available across service station forecourts, in comparable numbers to U91.[78]

Figure 4.1 shows the percentage of nozzles dispensing E10 and U91 at those service stations subject to the Biofuels Act. As it shows, over 50% of these nozzles were being used to dispense E10 in 2023, which is similar to prior years.[79]

Figure 4.1 E10 and U91 nozzles at service stations subject to the Biofuels Act



Notes: Nozzle data relates to stations subject to the Biofuels Act.
The 2019 data is measured using September quarter data, while for all other years it is measured using December quarter data.

Source: Data from NSW Fair Trading. Received 18 June 2024.

Findings

6. All the fuel retailers in NSW that are subject to the Biofuels Act have obtained an exemption from the ethanol mandate. However, most are still subject to the availability and accessibility requirement, which has helped support the development of the retail market for E10 in NSW.

7. E10 is widely available in metropolitan and regional areas of NSW, with around 72% of service stations in NSW selling E10 in April 2024. E10 is also as accessible to consumers as U91, with just over 50% of the nozzles in service stations subject to the Biofuels Act dispensing E10.

4.2 Consumers have an effective choice between fuels and retailers

One of the main benefits of the availability and accessibility requirement in the Biofuels Act is that it has provided consumers with greater choice when deciding on what fuel to purchase and a greater ability to switch between E10 and U91 in response to higher prices.

Figure 4.2 provides some insight into the fuel options available to consumers in NSW in April 2024. As it shows, 96% of the service stations that were selling unleaded petrol in April 2024, were offering consumers some type of choice between fuels. At those service stations that offered consumers a choice, the majority allowed consumers to choose between 3 types of unleaded fuel (i.e. U91, E10 and premium fuels), while the remainder allowed consumers to choose between 2 fuel types.

Figure 4.2 Choice of fuels at NSW service stations in April 2024

Source: NSW Government Open Data Portal, Datasets, *FuelCheck*, April 2024 data, accessed May 2024.

Consumers also have the option of going to another service station if the fuel they want is not available at a particular service station. We have previously found that of those service stations that do not sell U91:

- 90% are located within 5 minutes' drive of one that does
- 99.7% are located within a 10 minute drive of one that does.[80]

Whether or not individual consumers will view particular fuels as substitutes will depend on their individual preferences. In general, E10 has been considered a close substitute for U91, and while it is less likely to be viewed that way by premium fuel users, it is still capable of being used in compatible cars (Box 1.1). Similarly, premium fuels can be used in vehicles that may ordinarily be fuelled by E10 or U91.

In the Australasian Convenience and Petroleum Marketers Association's (ACAPMA), most recent survey of fuel consumer attitudes, price was found to be the key driver for consumers, with 54% of respondents indicating this was the most important factor in their decision making. Location was the next most important factor (identified by 13% of respondents) followed by fuel quality (identified by 11% of respondents).[81]

Consumers' decisions about what fuel to procure, where to procure it from and whether to switch between fuels and/or retailers have been supported by fuel comparator services. The NSW Government's FuelCheck service, for instance, enables consumers to make more informed decisions about each of these matters by providing close to real-time information on the fuels available and the price of each fuel at each service station.

As at May 2024, the FuelCheck app had been downloaded over 3 million times, while the FuelCheck website has been visited over 33.6 million times.[82] The utilisation of this service and other comparator services provides evidence that consumers are actively engaging in the market.

Findings

8. Consumers continue to have a high degree of choice and are able to switch between both fuels and retailers.

9. Comparator services, such as the NSW Government's FuelCheck, are helping consumers to make more informed decisions about what fuel to procure, and where to procure it from.

4.3 E10 continues to be the cheapest fuel available to consumers in NSW

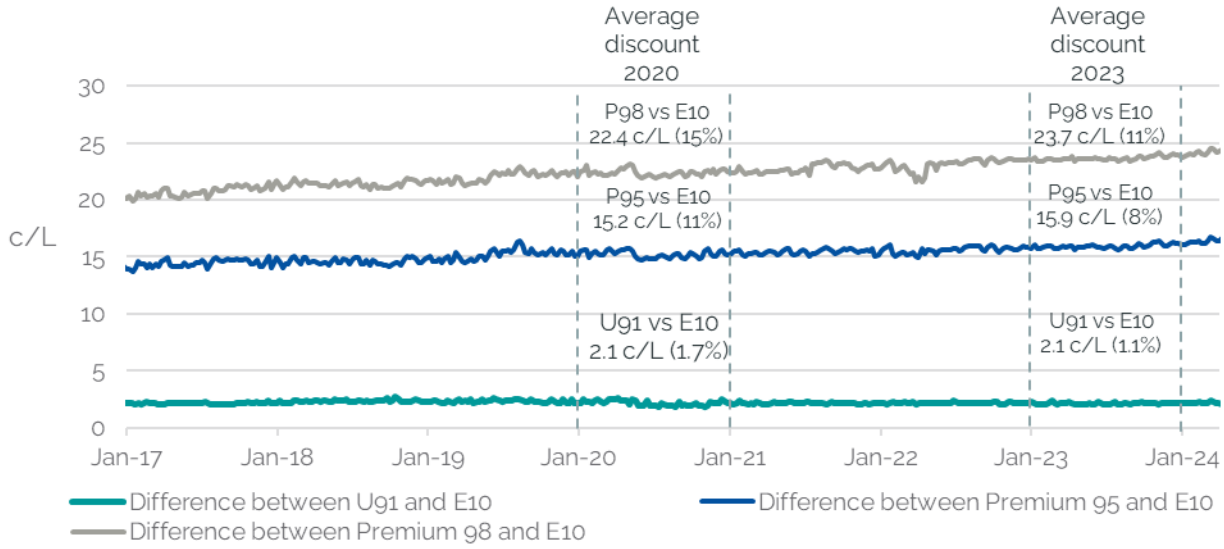
Similar to other unleaded fuels, the retail price of E10 at the end of March 2024 was around:

- 1.4 times higher than it was prior to the pandemic, with prices rising from an average level of 138.7 c/L in 2019 to 195.2 c/L by the end of March 2024
- 2 times higher than the lows observed during the COVID-19 pandemic, with prices rising from 99.5 c/L in mid-April 2020 to 195.2 c/L by the end of March 2024.[83]

While the price of E10 has increased significantly, it continued to be the cheapest fuel available to NSW consumers over this period, with retailers continuing to sell E10 at a discount to both U91 and premium fuels (Figure 4.3).[84]

On average, E10 was sold at a 2.1 c/L discount to U91 in 2023 and a 15.9 to 23.7 c/L discount to premium fuels. When measured on a cents per litre basis, the discount to U91 was relatively stable at 2.1 c/L, but when measured as a percentage of the U91 price , it fell from 1.7% to 1.1%.[85] In the case of premium fuels, the average discount measured on a cents per litre basis was slightly higher in 2023 than it was in 2020, but on a percentage basis it also fell.[86]

Figure 4.3 Difference between the retail price of E10 and other fuels in NSW ($nominal, ex GST, weekly average, January 2017 to March 2024)



Source: NSW Government Open Data Portal, Datasets, *FuelCheck*, accessed May 2024.

Findings

10. E10 continues to be the cheapest fuel available to consumers in NSW. On average, retailers sold E10 at a 2.1 c/L discount to U91 in 2023 and a 15.9 to 23.7 c/L discount to premium fuels. On a cents per litre basis, the 2.1 c/L discount is equivalent to what it was in 2020, but on a percentage basis it is down from 1.7% to 1.1%.

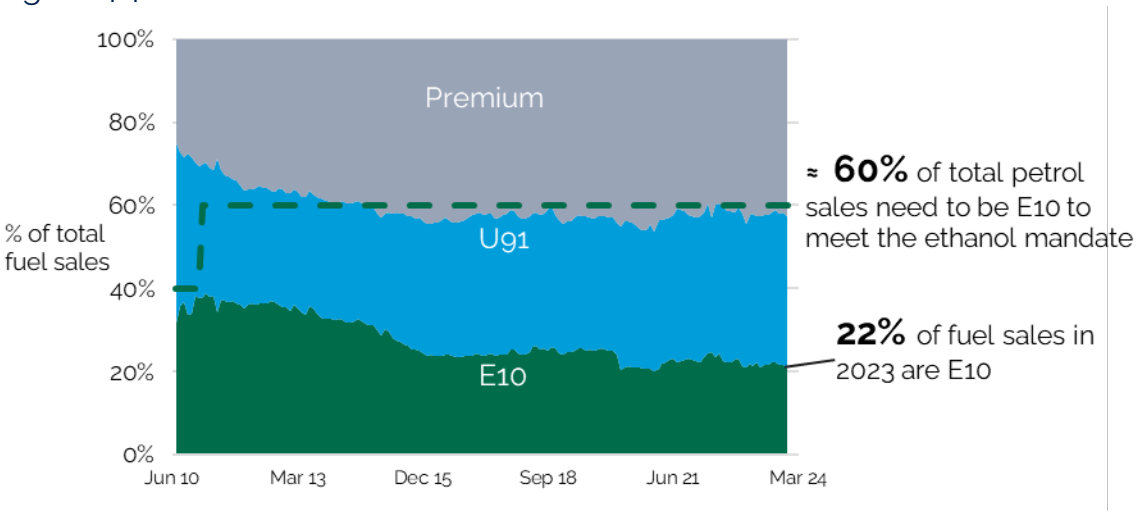
4.4 E10 sales have fallen, but its share of total fuel sales is stable

In 2023, E10 sales in NSW were around 23% lower than they were prior to the pandemic,[87] As noted in section 3.4, this likely reflects the increased uptake of more fuel efficient, hybrid and electric vehicles.

Although E10 sales have fallen, the share of total fuel sales accounted for by E10 has remained relatively stable since 2020, at around 22% (after an initial decrease down from 25% in 2019) (Figure 4.4).[88] This represents just over a third of the sales of E10 required to meet the ethanol mandate if it was binding on any retailers.[r]

[r] The ethanol mandate requires ethanol to account for at least 6% of the total volume of petrol sold. Assuming E10 comprises 10% ethanol, this means E10 must account for at least 60% of a retailer's fuel sales to meet the mandate.

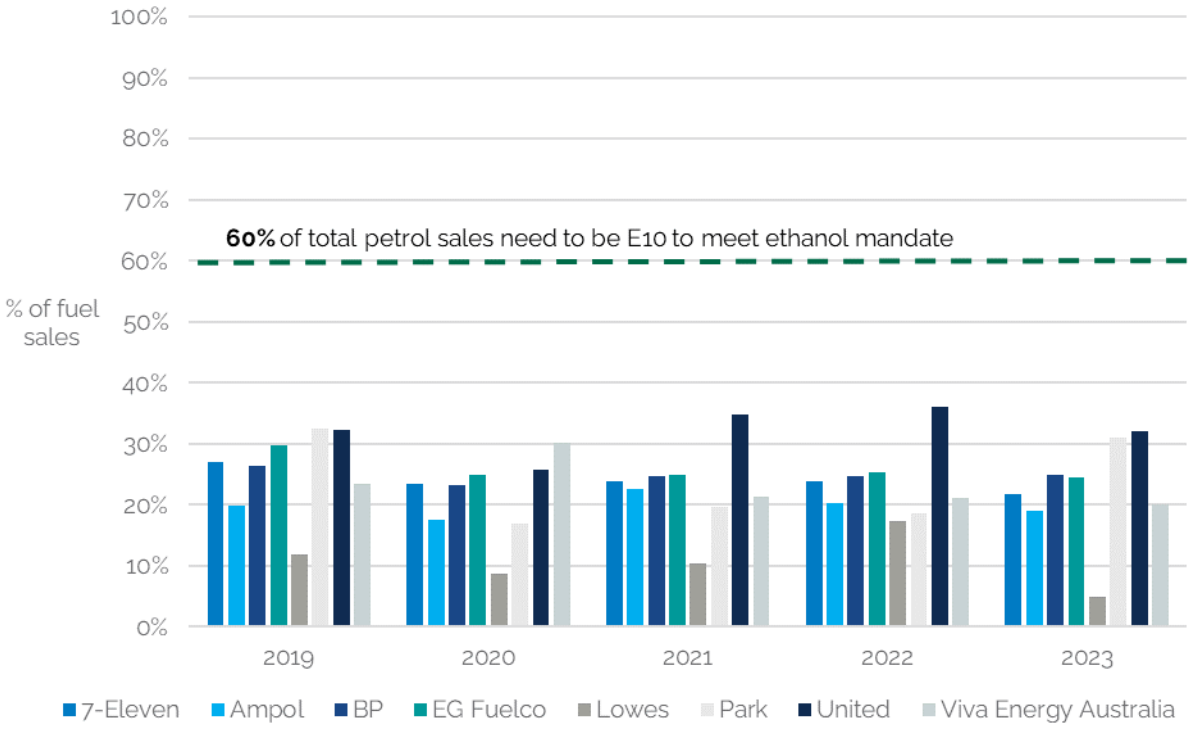
Figure 4.4 E10 share of fuel sales in NSW



Source: DCCEEW, Australian Petroleum Statistics - Data extract, March 2024.

Figure 4.5 provides further insight into the E10 sales that the major retailers have been able to achieve since 2019. As it highlights, no retailers have been able to achieve the ethanol mandate, although some retailers, such as United Petroleum, have come closer than others.

Figure 4.5 Major retailers' estimated E10 sales in NSW



Notes: Retailers report on the percentage of fuel sales that were ethanol. This has been converted to the percentage of E10 sales by assuming a 10% ethanol blend. Note also that the 2019 and 2020 data is based on December quarter data, while all other years are based on second half year data (i.e. July to December).
Source: NSW Fair Trading, Biofuels marketplace data, accessed May 2024.

In a statutory review of the Biofuels Act carried out in 2020, the NSW Government found that there were numerous reasons why the ethanol mandate was not being met, including low price differentials between fuels and customer concerns about ethanol blends.[89]

When coupled with the increasing uptake of hybrid and electric vehicles, it is difficult to see the mandate being met in the future. That said, the increased take-up of hybrid and electric vehicles will help to meet a number of the other objectives of the Biofuels Act, including improving air quality and reducing emissions.

Findings

11. E10 sales have fallen by 23% since 2019. However, because the sales of all fuel types have fallen, the proportion of fuel sales that is E10 as remained relatively stable since 2020 at around 22% (down from 25% in 2019). This represents just over a third of what would be required to meet the ethanol mandate if it was binding on any fuel retailers.

12. Total E10 sales are likely to continue to decline with the increasing uptake of hybrid and electric vehicles. The uptake could nevertheless help to achieve some of the broader objectives of the Biofuels Act, including improving air quality and reducing emissions.

5 Effect of our reasonable wholesale price determinations on the retail market for E10

In 2017, amendments to the Biofuels Act commenced that accorded IPART responsibility for determining a reasonable wholesale price for ethanol for use in the production of petrol-ethanol blends, such as E10. In determining this price, we are required to:[90]

- consider the price at which ethanol would need to be sold for use in the production of petrol-ethanol blend for the wholesale and retail markets to be economically viable
- take into account the biofuel requirements and disregard exemptions that may be granted.

Importantly, our determinations do not place a cap on the price that ethanol producers can charge. Our determinations can, however, provide a basis for retailers to apply for an exemption from the ethanol mandate, with retailers able to do so if the wholesale price of ethanol used in the production of E10 exceeds our determination (ground 3(i) in Table 4.1).[91]

This chapter provides further detail on how we determine the reasonable wholesale price for ethanol, the prices that we have recently determined and the effect that our determinations have had on the retail market for E10.

5.1 We use the import parity price method to determine the wholesale price for ethanol

To date, we have determined the reasonable wholesale price for ethanol based on an estimate of the market price of importing ethanol, which we refer to as the import parity price.

Our decision to use an import parity price followed a detailed review in 2016 of both the need for price regulation and the form it should take.[92] At the time, we found that some form of price regulation was required because while there was some competition between local ethanol producers, it was quite limited, with 3 producers competing in the market at this time.[93]

While competition at a wholesale level was limited, we found that consumer choice and competition between fuels in the retail market was likely to protect consumers from potential exercises of market power.[94] As outlined in Chapter 4, E10 competes with U91 and, to a lesser extent, premium fuels. This poses a constraint on the price that retailers can charge for E10.

In principle, this competitive constraint in the retail market should also pose a constraint on the prices ethanol producers can charge. This is because if ethanol producers try to charge excessive prices, retailers could respond by increasing the price of E10, which could, in turn, prompt consumers to switch to U91, resulting in lower volumes of ethanol being sold by producers.

While we considered employing a cost-based form of price regulation in the 2016 review, we were cognisant of the risk of overregulation in a market where there is some degree of competition and/or the potential for competition through new entry. That is, the risk of setting the price too low and, in doing so, adversely affecting competition between existing market participants and/or discouraging new entry.[95] We decided therefore to employ more of a market-based form of price regulation, by using the import parity pricing method.

In deciding to employ this method, we were aware that:[96]

- the import parity price method is commonly used by fuel importers and wholesalers when determining the price of other petroleum products
- ethanol producers and fuel wholesalers would continue to negotiate wholesale ethanol prices, with such negotiations occurring between well-resourced and sophisticated counterparties.

Since this initial review, we have periodically reviewed the use of the import parity price method, in consultation with stakeholders. Each of these reviews have confirmed that this is the appropriate method to use given the degree of consumer choice and competition in the retail market.[97]

As the discussion in Chapters 2 and 3 highlights, this remains the case, with:

- competition in the wholesale ethanol market being quite limited, with just 2 producers currently competing in the east coast and little prospect of new entry (section 2.1).
- consumer choice in the retail market and competition between fuels continuing to constrain the prices that consumers pay for E10 in the retail market (see Chapter 4).

On the first of these points it is worth noting that while competition at a wholesale level is currently limited, ethanol producers are likely to face greater constraints on their pricing going forward as the uptake of electric vehicles increases and the demand for E10 (and other fuels) continues to decline (see section 3.4).

Findings

13. Our use of the import parity price method to determine the reasonable wholesale price for ethanol remains appropriate, given consumer choice and competition in the retail market continues to constrain the prices consumers pay for E10.

5.2 The import parity price has increased significantly as a result of higher feedstock prices

To calculate the import parity price, we use the following inputs:

- the international market price of wholesale ethanol, which includes the mill gate price as well as freight and port costs in the country of origin
- sea freight and insurance costs
- landing costs in Australia, including wharfage costs at the import terminal in Australia
- storage and handling costs at the import terminal in Australia
- the customs value duty and the relevant excise tax for ethanol.

As a number of these inputs are priced in US dollars, we have to convert them into Australian dollars. The exchange rate can therefore impact our determinations.

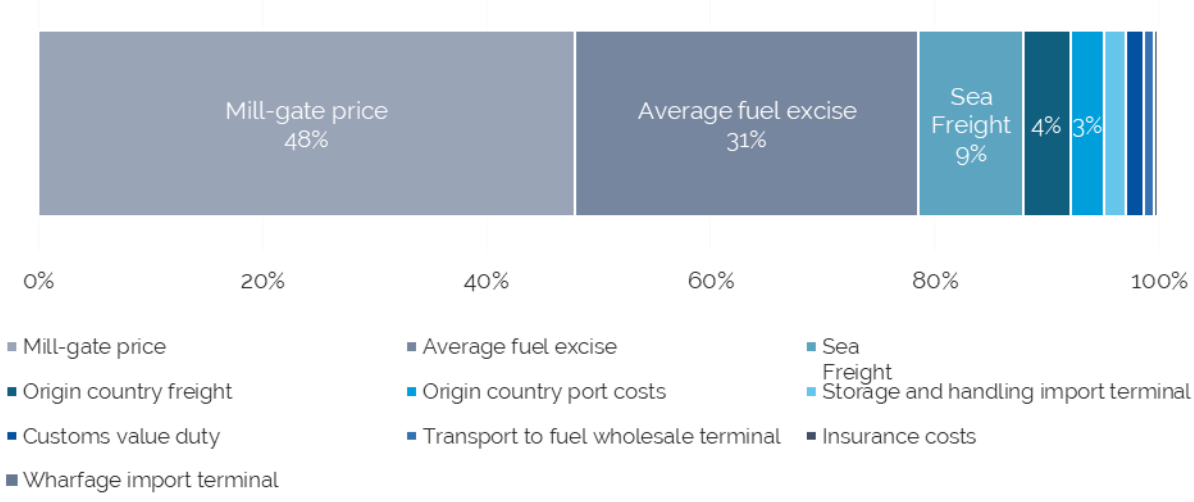
Using the inputs listed above, we calculate a 9-month average (up until 1 month prior to commencement of the pricing period) of weekly import parity price estimates, using the lowest cost origin for ethanol for each week, from either the US or Brazil. The US is currently the largest international producer of ethanol, accounting for around 46% of world production in 2022, while Brazil is the second largest producer, accounting for 25% of world production.[98]

Figure 5.1 shows the contribution of each of these inputs to our last determination, which came into effect on 1 March 2024. As it shows, the largest contributors to the import parity price are:[99]

- The mill gate price, which reflects all the costs associated with producing ethanol, including feedstock costs. In March 2024, this accounted for just under half of our import parity price.
- Fuel excise, which is payable on imported ethanol. In March 2024, this accounted for just over 30% of our import parity price.

Of the remaining inputs, sea freight and origin country freight costs and accounted for 9% and 7%, respectively, while the other inputs accounted for between 0.1% and 2%.[100]

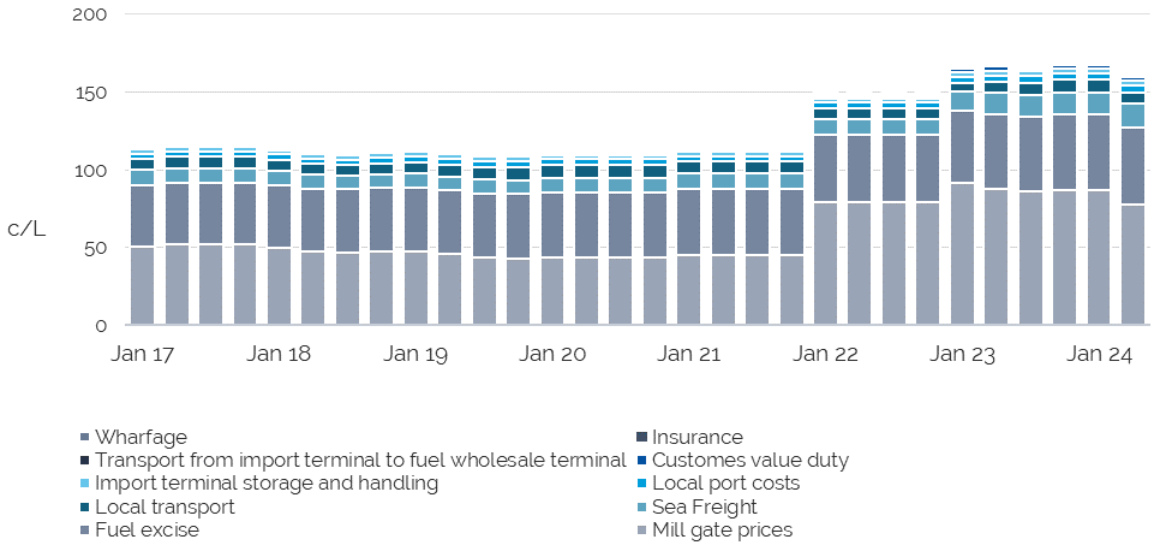
Figure 5.1 Components of the import parity price (March 2024)



Source: IPART, Import price parity model.

As Figure 5.2 shows, the import parity price has increased by around 45% between January 2020 and March 2024 from 111.7 c/L to 161.9 c/L.[101] The mill gate price accounted for most of the increase over this period, rising by 34 c/L (or 78%), while fuel excise increased by 8 c/L and sea freight costs increased by 6 c/L.[s] Around 10 to 15 percentage points of the 45% increase was due to exchange rate fluctuations (i.e. around a quarter to a third of the increase).

Figure 5.2 Reasonable wholesale price for ethanol determinations (c/L)



Note: Between 2020 and 2022 IPART determined the wholesale price annually. Due to significant price volatility following COVID, we made quarterly determinations over 2023. In September 2023, we decided to do 6-monthly updates as the ethanol price had stabilised. For more information on how often we set prices, please see our September 2023 determination.

Source: IPART, Import price parity model.

Mill gate prices in the US and Brazil increased significantly between 2020 and 2024, largely as a result of higher feedstock prices, with corn (the main source of ethanol feedstock in the US) and sugar (the main source of ethanol feedstock in Brazil) prices increasing significantly in this period.

Corn prices, for instance, reached a 7-year high in the first half of 2021 and rose even further in the first half of 2022. While prices have since moderated, they are materially higher than what they were in 2020.[102] Sugar prices also reached a 10-year high in early 2023[103] and remained relatively high until late 2023.[104] Like corn, sugar prices have since moderated, but are still higher than they were in 2020.[105]

Some of the factors that have affected corn and sugar feedstock prices over this period include higher global demand, higher fertiliser costs, geo-political events that have affected supply, such as the Russia-Ukraine conflict, weather related supply interruptions and other trade disruptions.[106]

Findings

[s] At the time we calculated the price that would apply from January 2020 the AUD/USD exchange rate was around $0.67, which is similar to the exchange rate that we used to calculate the March 2024 price ($0.66). The exchange rate does not appear therefore to have been a significant contributor to the increase in prices over this period. See IPART, Import price parity model.

14. Our import parity price increased by 45% between January 2020 and March 2024, largely as a result of higher ethanol feedstock prices overseas.

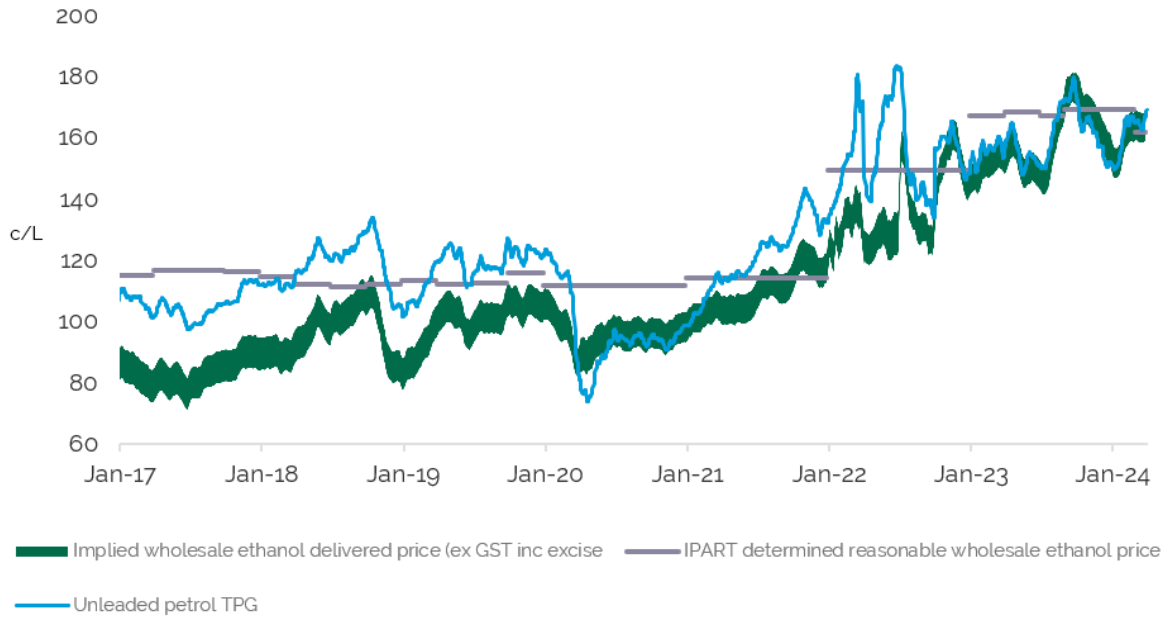
5.3 Our determinations can provide retailers some protection

As outlined in the introduction to this chapter, our reasonable wholesale price determinations form part of the Biofuels Act exemption framework and do not directly affect the wholesale prices of ethanol. These prices are instead determined through negotiations between ethanol producers and fuel wholesalers, and so may be above or below our determined prices.

If the negotiated price is above our determination, then retailers may apply for an exemption from the ethanol mandate.[107] We understand that to date only 1 retailer has sought an exemption on this basis,[108] but there is no publicly available information on how much the wholesale price the retailer was having to pay exceeded our determination. This is because, in contrast to other fuels, there is no publicly available information on the ethanol TGP (as discussed in Chapter 3).[t]

Our analysis of the wholesale prices that retailers are having to pay ethanol is therefore based on implied values, calculated using the Sydney TGPs for E10 and U91. The implied values are set out in Figure 5.3.

Figure 5.3 Implied wholesale price of ethanol based on Sydney E10 TGPs, compared to unleaded fuel TGPs



Note: The range for the implied wholesale ethanol price assumes an ethanol blend in E10 between 9% and 10%, and includes domestic excise on ethanol, but excludes GST. It assumes fuel wholesaler margins (including the costs of blending ethanol with U91) of between 3 and 12 cents per litre of fuel, based on past estimates from ACCC.

Source: IPART calculations based on daily average Sydney terminal gate prices for U91 and E10 from Fueltrac, Australian Government, Historical excise rates, accessed June 2024.

[t] While we have previously encouraged Manildra to publish its TGP for ethanol, it has not done so. IPART, *Ethanol market monitoring 2018-19*, December 2019, p 8.

As Figure 5.3 shows, the implied wholesale price of ethanol has been below our reasonable wholesale price determinations for most of the period in which we have had this function. It would appear, however, that since mid-2021 there may have been an increase in the prevalence of the wholesale price of ethanol exceeding our determinations. For instance, in the latter half of 2021, 2022 and 2023 and again in early 2024, the implied wholesale price of ethanol exceeded our determinations by as much as 7 to 17 c/L over these four periods.

In Australia, the wholesale price of ethanol is closely linked to the price of unleaded fuel (i.e. it set at a discount to the unleaded fuel TGP). Figure 5.3 shows that at times unleaded fuel TGP has peaked well above our determined wholesale price of ethanol, and so the wholesale ethanol has increased alongside it. In addition, as discussed in Chapter 3, it appears that some fuel wholesalers are at times selling E10 for more than unleaded petrol.

As discussed earlier in this report, while at a wholesale level the price of ethanol appears to have exceeded our determinations, retailers have continued to sell E10 at a discount to U91 (see section 3.3).

It is important to recognise that while retailers may be negatively impacted by the higher wholesale prices of ethanol, changing the way in which we determine the reasonable wholesale price would not address this issue. This is because our determinations do not regulate the price that ethanol producers charge. So irrespective of the method we use to determine the reasonable wholesale price, ethanol producers would continue to be able to determine how to set their prices.

That is not to say that retailers have to continue to absorb the higher ethanol prices. Rather, retailers could consider:

- importing fuel-grade ethanol if the price local ethanol producers are charging exceeds the import parity price
- allowing the retail price of E10 to exceed U91, even just for a short period of time, so that ethanol producers bear some of the financial consequences of E10 being uncompetitive, which may provide them a stronger incentive to reduce their wholesale ethanol prices.

Retailers also have the option of applying for an exemption from the ethanol mandate on the basis that it is not economically viable to comply, as 1 retailer has already done.[109]

While all retailers in NSW that are subject to the Biofuels Act currently have an exemption from the ethanol mandate, the majority have obtained the exemption on the basis that they have taken all the prescribed steps to comply (see ground 1 in Table 4.1 and Box 4.1). This includes: [110]

- having the infrastructure in place to distribute sufficient E10 to comply with the requirement
- ensuring the availability of facilities to dispense E10
- marketing E10 on a continuing basis to support compliance
- securing, on a continuing basis, sufficient ethanol or E10 to comply with the requirement.

Obtaining an exemption on this alternative ground (ground 3(i) in Table 4.1) would therefore mean that retailers do not have to comply with the prescribed steps, which could otherwise impose significant costs on retailers and leave them exposed to high wholesale ethanol prices. For instance, while a retailer that has been granted an exemption on ground 1 in Table 4.1 does not have to meet the 6% ethanol mandate, it is still required to procure sufficient ethanol or E10 to comply, which means it can still be required to pay the high wholesale ethanol prices.

Obtaining an exemption because the wholesale ethanol price exceeds our determined price (ground 3(i) in Table 4.1), could therefore provide retailers with a greater level of protection than they may otherwise have under their existing exemption.

Findings

15. Over the period 2020 to 2024, the wholesale ethanol price is likely to have exceeded our determined price on a number of occasions.

16. To date retailers have absorbed the higher wholesale cost of ethanol and E10. If this becomes unsustainable, retailers could consider other options, including importing ethanol or raising the retail price of E10. If the wholesale price exceeds our determined price, retailers could also apply for an exemption from the ethanol mandate on a 'not economically viable' ground, which would provide them with additional protection from high wholesale ethanol prices.

[1] Department of Customer Service, Statutory Review Biofuels Act 2007, August 2020.
[2] NSW Fair Trading, Regulatory Impact Statement: Biofuels Regulation, May 2016, p. 3.
[3] Biofuels Act 2007 (NSW), s 8.
[4] Biofuels Regulation 2022 (NSW), cl 8.
[5] Biofuels Act 2007 (NSW), s. 6.
[6] Biofuels Act 2007 (NSW), s. 17A(1)(b).
[7] IPART, *Determining ethanol wholesale prices and monitoring the retail market for E10*, Final Report, September 2021.
[8] NSW Government Open Data Portal, Datasets, *FuelCheck,* accessed May 2024.
[9] FuelTrac Sydney Terminal Gate price data and NSW Government Open Data Portal, Datasets, *FuelCheck,* accessed May 2024.
[10] DCCEEW, Australian Petroleum Statistics - Data extract, March 2024.
[11] DCCEEW, Australian Petroleum Statistics - Data extract, March 2024.
[12] FuelTrac Sydney Terminal Gate price data.
[13] Biofuels Act 2007 (NSW), s. 17A(1)(a).
[14] Biofuels Act 2007 (NSW), s. 9B (1)(a) and s 9A(2)(c)(i).
[15] Biofuels Act 2007 (NSW), s 9A(2)(c).
[16] Email from NSW Fair Trading, received 20 May 2024.
[17] Email from NSW Fair Trading, received 20 May 2024.
[18] NSW Government, Statutory Review – Biofuels Act 2007, August 2020, p 4.
[19] Biofuels Act 2007 (NSW), ss. 3 and 4A, Biofuels Regulation 2022 (NSW), cl 5-6.
[20] Biofuels Act 2007 (NSW), s 8.
[21] Biofuels Regulation 2022 (NSW), cl 8.
[22] Biofuels Act 2007 (NSW), s 6.
[23] CSIRO, *Biofuels in Australia – an overview of issues and prospects*, 2007, p 5.
[24] Queensland Government, *Using E10 in your vehicle website,* accessed June 2024
[25] NSW Government, E10 facts website, accessed June 2024.
[26] NSW Government, E10 facts website, accessed June 2024.
[27] IPART, *Review of a maximum price for wholesale ethanol in automotive fuel blends*, Final Report, December 2016.
[28] IPART, *Determining ethanol wholesale prices and monitoring the retail market for E10*, Final Report, September 2021.
[29] IPART, *Wholesale price for fuel ethanol*, 29 February 2024.
[30] IPART, *Determining ethanol wholesale prices and monitoring the retail market for E10*, Final Report, September 2021.
[31] Robbie Katter, Member for Traeger, *Labour's Triple failure closes Dalby Bio-Refinery,* Media Release, 25 June 2020.
[32] IBISWorld, *Ethanol Fuel Production in Australia*, February 2024, p 39.
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