



Fuel Policy

August 2020

RACT Policy – Fuel

Mobility Strategy Pillar: Sustainability

Sustainability is the third component of RACT's mobility strategy. Within this pillar, RACT's vision is to reduce fuel emissions through the use of affordable and clean energy.

Fuel policy statements

Fuel explained

- Fuel is a complex issue and within this policy it will be considered as having three key areas of focus, including fuel price, vehicle emissions, including fuel efficiency, and fuel quality.
- Fuel prices are a significant issue in Tasmania, with Hobart and Launceston motorists overcharged significantly in comparison to mainland centres.
- Vehicle emissions, including fuel efficiency, and fuel quality are important to consider as one as the implementation of international emission standards requires improved fuel quality and fuel efficiency.

Purpose of this policy

- The purpose of this policy is to establish RACT's position fuel price, vehicle emissions and fuel quality, which will inform how RACT advocates on these issues.
- This is part of RACT's aim to develop a comprehensive focus on future, more sustainable transport.

Relevance to RACT

- RACT is committed to ensuring Tasmania's future transport options provide better environmental and health wellbeing outcomes for the community.
- As more strict environmental standards continue to be implemented across the world, RACT will represent Tasmanian motorists through a policy that addresses more sustainable transport.

Background, evidence and position

Background

Fuel prices

- Approximately 75% of Australia's crude oil supply is imported from overseas countries, before being refined locally, while 55% of refined fuel (petrol and diesel) is also sourced overseas (Department of Environment and Energy, 2017).
- Fuel costs in Australia fluctuate due to the international benchmark price, which are set by Singapore Mogas for petrol, Singapore Gasoil for diesel and Saudi Arabia prices for LPG (ACCC, 2018).

- Benchmark prices for petrol, diesel and LPG are priced in US dollars, meaning the value of the Australian dollar relative to the US dollar may affect the domestic price of fuel (ACCC, 2018).
- Fuel wholesalers and retailers can also raise prices due to costs, including wharfage, freight, insurance, transport, storage, salaries, rent, power and other utilities (ACCC, 2018).
- The AAA's Transport Affordability Index and the ACCC's Report on the Australian Petroleum Market have both consistently found that Hobart and Launceston are among Australia's most expensive cities for fuel prices (AAA, 2020).
- The NSW Government implemented real time fuel price monitoring in 2016, making it mandatory for retailers to record any changes in their prices in real time. The positives of the NSW FuelCheck Scheme, as provided by NRMA, include:
 1. Full transparency for motorists with real time fuel prices listed on a website and smart phone apps.
 2. Motorists can search for the cheapest fuel in their area and other regions.
 3. Providing motorists with this information prior to travel.
 4. Provision of prices for all fuel types in the system.
- The Tasmanian Government implemented a real time fuel price monitoring scheme under a code of practice in July 2020. This makes it mandatory for retailers to publicly report changes in their prices as they occur both online and on a smart phone app (Department of Premier and Cabinet, 2020).
 - Price information by retailers will be closely monitored by the Government, with penalties for failing to provide accurate information. Should retailers continue to charge high prices, the Government will explore additional legislation around fuel price capping.
 - RACT believes this scheme will reduce prices by generating more retailer competition and accountability.
- All retail fuel prices in Australia include fuel excise and GST charges. The fuel excise, which is indexed in February and August each year, is worth just over 40 cents per litre of fuel for both unleaded petrol and diesel (ACCC, 2019).
 - GST is charged at 10% of the total price, after the excise is added.
 - The Australian Government does not allocate fuel excise revenue for road safety and transport infrastructure, as in other countries. Therefore, it can allocate these funds to any area of expenditure (AAA, 2018).
- Infrastructure Australia recommends removal of road fees and charges, including the fuel excise, in place of a road user charge model that reflects each road user's consumption of the network (Parliament of Australia, 2019).
 - This includes location, time and distance of travel as well as vehicle weight and environmental impact, with an appropriate percentage of revenue going towards road safety and infrastructure improvements.
 - This system is supported by Infrastructure Partnerships Australia and the Australian Automobile Association.

Fuel quality and vehicle emissions overview

- RACT understands that vehicle emissions are harmful to human health, in terms of respiratory problems faced in crowded urban centres. Environmentally, emissions place stress on parks and gardens, trees, urban wildlife and pets.
- The Federal Government is aiming to reduce greenhouse gas emissions as part of climate change commitments within the 2015 Paris Agreement, including carbon dioxide (Department of Environment and Energy, 2016).
 - In order to meet the 2030 emissions reduction target, the Australian Government is aiming to deliver low cost emissions reductions and other co-benefits, including measures to improve light vehicle efficiency.

- Since 1992, Europe has also introduced six standards that stipulate the maximum amount of noxious emissions from a vehicle (International Council of Clean Transportation, 2016).
- Euro 6 was implemented in Europe in 2015 and aimed to reduce four main emission groups known as noxious emissions, including: carbon monoxide, hydrocarbons, nitrogen oxides and particulate matter (International Council of Clean Transportation, 2016).
 - Noxious emissions impact on the quality of the air we breathe, leading to harmful health effects such as respiratory illness, cardiovascular disease and cancer (Department of Environment and Energy, 2018).
- The current minimum emission standards for new light vehicles in Australia are based on Euro 5 standards. The minimum standard for new heavy vehicles are based on Euro V standards (Department of Infrastructure and Transport, 2018).
- In terms of fuel quality, European fuel standards are based on sulphur content, which is a natural component of crude oil found in refined fuel that impacts the environment and human health (Department of Environment and Energy, 2016).
- In Europe, changes to fuel quality are linked to the introduction of tighter emissions regulations. Sulphur limits were reduced to 10 parts per million (ppm) in 2009 to enable the introduction of Euro 5 and 6. Reducing sulphur limits in European petrol from 150ppm to 10ppm occurred over nine years, and in every case, the new fuel standards preceded the new emissions standards (AAA, 2018).
- Conversely, Australia ranks 66th in the world for its fuel quality standards, the lowest of all developed countries, with an allowable sulphur content up to 15 times higher than countries like China (the Guardian, 2019).
 - As mentioned, the Australian Government has mandated Euro 5 emission standards. However, this does not include the associated fuel quality standards for petrol, being 10ppm of sulphur for 95 octane fuel. This standard is unchanged for Euro 6 regulations (Federal Chamber of Automotive Industries, 2019).

Government action on fuel quality and vehicle emissions

- The Australian Government established the Ministerial Forum on Vehicle Emissions in 2015, with a 2018 discussion paper considering whether Australia should adopt the Euro 6 standards for light vehicles and Euro VI standards for heavy vehicles (Department of Environment and Energy and Australian Automobile Association, 2018).
- The forum has outlined three measures to align the nation's fuel quality with European standards. This would reduce environmental impacts, enable to supply of low emission vehicles and allow the introduction of new emission standards. The following three measures are supported by the AAA and the FCAI:
 1. Euro 6/VI vehicle emissions standards to reduce noxious emissions.
 - New Australian vehicles must be equipped with latest emissions technology that enable them to use lower sulphur fuels.
 2. Fuel efficiency standards to reduce carbon dioxide emissions
 - New Australian vehicles comply with efficiency standards that help reduce fuel consumption and emissions.
 - Improved fuel efficiency also improves noxious emissions.
 3. Fuel quality standards and instruments to reduce noxious and greenhouse gas emissions.
 - Australian fuel must be in line with European 10 parts per million (ppm) sulphur standards in order to implement Euro 6 emission standards.
 - Low sulphur fuel allows improved emission standards and therefore the sale of lower emission vehicles.
 - Higher octane fuel results in better efficiency and lower emissions.

- However, this forum has been criticised over its inaction, and before the May 2019 election the government postponed fuel quality improvements (to 10 ppm sulphur) for Australian refineries until July 2027. This means sulphur levels will not fall to the European standard of 10 ppm until then (CarAdvice, 2019 and Fuels and Lubricants Magazine, 2020).
 - The 2027 deadline was nominated by the petroleum industry, which said it needed eight years to upgrade its four local refineries: Mobil in Melbourne, Viva/Shell in Geelong, BP near Perth, and Caltex in Brisbane. According the Australian Institute of Petroleum this would cost of almost \$1 billion. The petrol companies are concerned these refineries would be closed if fuel standard changes were brought forward.
 - A statement from the Department of Energy said: “petrol quality will be improved by lowering the aromatic content starting in 2022 and lowering the sulphur limits starting in 2027”.
 - This was despite an initial pledge to implement Euro 6 by 2017 being extended to 2019 or 2020 (Fuels and Lubricants Magazine, 2020).
 - New Zealand implemented 10 ppm sulphur limits in 2018.
- Consequentially, pursuing this 2027 timeline results in the delayed introduction of lower sulphur fuel and therefore Euro 6 standards. This also delays the introduction of advanced Euro 6 standard cars in Australia, which reduce noxious emissions through low sulphur fuels. These low sulphur fuels also reduce CO2 through improved fuel efficiency (AAA, 2018)
 - Without these standards, manufacturers would either export older generation engines on new models, or not export them at all. This would result in a lack of supply of low emission cars into the Australian market.
 - Conversely, if Euro 6 is introduced before lower sulphur fuel is available, engines could be negatively impacted by the poorer quality fuel.
- This then results in a limited ability to make significant reductions in CO2 emissions from light vehicles until post 2027 (AAA and Department of Environment and Energy, 2018).
 - A CO2 standard requires the introduction of Euro 6 to manage the increase in diesel vehicles and direct injection technology, which delivers CO2 reductions but increases noxious emissions. Therefore, pursuing a CO2 standard without Euro 6 could lead to higher noxious emissions.
- Additionally, it is expected that fuel-efficient and low CO2 vehicles will increasingly be designed to comply with Euro 6 regulations. Therefore, implementing Euro 6, new fuel quality and CO2 standards in a coordinated timeframe will ensure that manufacturers can supply the latest low emissions vehicle technology to Australia (AAA, 2018).
- The AAA supports moving to 10ppm sulphur petrol by no later than 2027. Any earlier and motorists would be forced to pay more for premium fuels as modern fuel efficient cars cannot use 91 octane fuels (AAA, 2018).
 - Conversely, the AAA is mindful that a pre-2027 timeline could result in financial incentives to Australian refineries to ensure viability. The AAA opposes these incentives if they are passed on to consumers as costs.
- RACT also understands motorists may face additional costs in purchasing modern vehicles that meet new Euro 6 standards, particularly in Tasmania where the average vehicle fleet age is 12 years.

Evidence

Fuel prices

- The AAA’s Transport Affordability Index has consistently found that Hobart is Australia’s most expensive capital city in terms of fuel prices, with drivers spending \$80 per week (AAA, 2020).
 - This was ahead of Sydney, Brisbane and Adelaide, which fall below between \$75 and \$79, with Perth, Melbourne, Canberra, Darwin all sitting at or below \$75.

- The index has also consistently found that Launceston is one of Australia's most expensive regional cities relating to fuel, with drivers spending \$90 per week. This was ranked third, behind Bunbury (\$95) and Geelong (\$92) (AAA, 2020).
- Fuel is the second highest weekly expense of both Hobart and Launceston households, behind car loan repayments at approximately \$125 a week in each city (AAA, 2019).
- Launceston motorists pay approximately 20 cents per litre more for petrol than motorists in Sydney, Melbourne, Brisbane, Adelaide and Perth (AAA, 2019).
- The ACCC's quarterly reports on the Australian petroleum market during 2019 consistently found that Hobart's average unleaded petrol price during was over 150 cents per litre, the highest of all capital cities in Australia. Specifically, it was also well above the average for the five largest cities (Sydney, Melbourne, Brisbane, Adelaide and Perth), which was always well below 150cpl (ACCC, 2019).
 - Regionally, Launceston and North West centres also averaged about 150cpl.
- The ACCC reports show disparities of between 20-30cpl between the wholesale and retail prices in both Hobart and Launceston. This is much higher than Australia's five largest cities, which record disparities of between 10-15cpl.
 - RACT believes a suitable disparity between the wholesale and retail price is 14cpl.
- However, during 2020, COVID-19 pandemic significantly changed fuel price dynamics in Tasmania. This resulted in fluctuations of, and significant disparity between, wholesale and retail prices. RACT data shows that Tasmanians were overcharged approximately \$20 million during 2020.
- NRMA modelling has proven the NSW real time fuel price monitoring scheme FuelCheck to be successful, with data showing it saved motorists \$111 million per year since 2016. A trial of a similar scheme in Queensland saved motorists \$122.8 million in 12 months.
- The NRMA has also compared prices between Sydney and other Australian capitals the year before and after FuelCheck was implemented in 2016. Between 2015 and 2017, Sydney's average price has dropped 5 cpl below the Canberra price, 2.8 cpl below the Perth price and 2.4 cpl below the Brisbane price.
 - Additionally, Sydney's price dropped 2.7 cpl below the average price of Australia's major capitals. This modelling shows that the introduction of FuelCheck had a positive impact for motorists.
- FuelCheck has received more than 8.5 million hits, with an average of 10,000 daily. The FuelCheck app launched in October 2017 and has had around 560,000 downloads. There have been more than 2,000 service stations updating fuel prices in real time. The NSW Government received a 95% approval rating from FuelCheck customers.
- Using modelling from the NRMA, RACT has estimated for each 1.00 cent per litre saving, Tasmanian motorists could save \$4.26 million through price monitoring. An extra 3.00 cpl cost the total extra paid is \$12.78 million
- The Australian Government's fuel excise is worth just over 40 cents per litre of fuel for both unleaded petrol and diesel, which resulted in \$17.5 billion going to the government in 2018-19 (Australian Taxation Office, Department of Treasury, 2019).
 - This revenue does not go towards road safety and transport infrastructure, as mentioned previously (AAA, 2018).
 - The GST rate of 10% is added to the total purchase price after the excise is added (ACCC, 2019).

Vehicle emissions

- There are just over 19 million registered motor vehicles in Australia, with 74% using unleaded fuel and 23% using diesel. Passenger vehicles also make up 74% of Australia's fleet (ABS, 2018).
- The transport sector accounts for approximately 17% of Australia's emissions, with light vehicles making up approximately 10% of Australia's total emissions (Department of Environment and Energy, 2016).
- Tasmania's transport sector has the highest greenhouse gas emissions of all sectors in the state's economy (Tasmanian Climate Change Office, 2018).

- The Federal Government is aiming to reduce greenhouse gas emissions to up to 28% on 2005 levels by 2030 as part of climate change commitments within the 2015 Paris Agreement (Department of Environment and Energy, 2016).
 - The proposed carbon dioxide standards are projected to avoid 65 million tonnes of greenhouse gas emissions by 2030 (Department of Infrastructure and Regional Development, 2016).
- The Federal Government's Ministerial Forum on Vehicle Emissions is considering the reduction of carbon dioxide emissions from new fuel efficient light vehicles to 105g/km in 2025 (Department of Infrastructure and Regional Development, 2016). This is almost half the current level of 181g/km and a reduction from 192g/km in 2013 (National Transport Commission, 2017).
- The key difference from Euro 5 to Euro 6 is a 55% reduction in the emission limits for noxious emissions for light diesel vehicles, a particle number limit to reduce fine particle emissions from light petrol vehicles and better requirements for the performance of emission control systems (Department of Infrastructure and Regional Development, 2016).
- The average emissions level of a new car sold in Europe in 2017 was 118.5g/km, well below the 2015 target of 130g (European Commission, 2018).
 - By 2021, the European Commission is aiming for a fleet average of 95g of carbon dioxide per kilometre to be achieved by all new cars.
- The average cost of new cars is expected to increase between \$827 and \$1,921 for passenger cars and \$752 and \$3,120 for light commercials by 2025. Additionally, the introduction of Euro 6 is expected to, on average, increase the cost of new petrol cars by just \$160 and light diesel cars by just \$550 (AAA, 2017).

Fuel quality

- Unleaded fuel is used by 74% of Australian motorists (ABS, 2018).
- Australian standards dictate that 91 octane fuel can carry up to 150 parts per million of sulphur, with a 50ppm cap on premium 95 and 98 octane fuels. Diesel sold in Australia can have no more than 10ppm. Sulphur is a natural component of crude oil present in refined fuel. (Department of Environment and Energy, 2018).
- Australia's fuel quality standards ranks at the bottom of the 35 countries in the Organisation for Economic Co-operation and Development (OECD, 2017).
- Australia is also 66th in the world's fuel quality rankings (the Guardian, 2019).
 - Germany, Japan, Austria, Denmark and Sweden are the top ranked nations with 10ppm of sulphur and a minimum fuel octane rating at 95. Sulphur content standards for 91 octane fuel in Australia rank lower than Iraq and Algeria, which have standards of 100ppm fuel (Stratas Advisors, 2017).
- However, in 2015 RACT commissioned fuel testing of 91 octane fuel shipped from Korea to Bell Bay near George Town. It found sulphur levels were far lower than these standards, with the recorded content being 19-21ppm.
- Furthermore, studies have shown that Australian fuel quality has substantially lower sulphur levels than the maximum standard. In 2014-15 average levels in Sydney for 91 octane fuel were 28 ppm, with 95 octane tested to be 16 ppm. In Melbourne 91 octane was 60ppm and 95 octane was 28ppm (Australian Institute of Petroleum, 2017).
- In 2017, the Australian Institute of Petroleum (AIP) stated it would cost refineries \$979 million to upgrade their facilities to produce 10ppm sulphur petrol. The AAA would expect actual capital costs for a refinery upgrade to change in future years.
- In January 2018, the Ministerial Forum on Vehicle Emissions released a draft regulation impact statement proposing improvements to fuel standards under the Fuel Quality Standards Act (Department of Environment and Energy, 2018). The report revealed the Australian Government is considering one of three options:

1. Reducing sulphur in premium unleaded petrol (95 and 98 octane) to 10ppm and phasing out 91 octane petrol, and changes to diesel standards. This would have no community benefit, with a negative value of -\$718 million in 2022 and -\$607 million in 2027.
 2. Reduce sulphur in premium and 91 octane petrol to 10ppm, and changes to diesel standards. This would have positive community benefit, with a value of \$641 million in 2022 and \$319 million in 2027.
 3. Reduce sulphur in premium and 91 octane petrol to 10ppm, with no other changes. This would also have positive community benefit with a value of \$628 million in 2022 and \$317 million in 2027.
- Furthermore, the FCAI has told a parliamentary hearing into electric vehicles that improving Australia's fuel quality would offer a "3% to 5%" improvement on CO2 performance "overnight" (FCAI, 2019).
 - Estimates have claimed 10ppm fuel would add between 1 and 2 cents per litre, due to the extra refining process (CarAdvice, 2019).

Position

Fuel prices

RACT

- Supports the Tasmanian Government's implementation of a real time fuel price reporting scheme to help reduce prices by generating retailer competition and accountability.
- Urges the Tasmanian Government, and the Australian Competition and Consumer Commission, to routinely monitor and enforce retailer compliance with Tasmania's real time fuel price reporting scheme, including the website and smart phone app. Appropriate penalties must be issued for failing to provide accurate information.
 - Should retailers continue to charge high prices, such as exceeding the appropriate 14cpl margin between wholesale and retail prices, the government must implement fuel price capping legislation.
- Urges all levels of government and the ACCC to actively monitor metropolitan and country retail and wholesale fuel prices and to address any unjustifiable and excessive differences through enforcement.
- Urges all levels of government to implement transparent pricing systems for both wholesale and retail fuel prices.
- Urges all levels of government to implement initiatives and incentives that encourage more independent wholesalers and retailers to establish themselves in Tasmania. This can increase fuel price competition in Tasmania.
- Supports partnerships that establish fuel discounts for consumers.
- Urges the Australian Government, alongside the Tasmanian Government, to develop and phase in a new transparent road-user charging model in place of the federal fuel excise
 - This charge should reflect each road user's consumption of the network, such as: location, time and distance of travel, as well as vehicle weight (heavy vehicles), environmental impact and road maintenance.
 - An appropriate percentage of revenue from this road-user charge must go towards road safety and transport infrastructure.
 - Removal of the excise must also specifically target electric vehicles as they become more common, in order to incentivise uptake.
 - However, if the excise cannot be removed, the Australian Government must specifically allocate an appropriate percentage of its revenue towards road safety and transport infrastructure.

Vehicle emissions

RACT

- Urges all levels of government, fuel companies and vehicle manufacturers to reduce emissions by implementing Euro 6 standards and associated vehicles as soon as possible. At the very least, this should be immediately following changes to fuel quality in 2027.
 - RACT will work with the above stakeholders and the AAA to ensure these standard following the 2027 timeline in order to reduce vehicle pollution in Tasmania.
- Urges the Tasmanian and local governments and organisations to implement noxious and carbon emissions reduction measures by introducing the latest low and zero emission and fuel efficient vehicles and using higher quality premium fuel.
 - This involves integrating low and zero emission vehicles into fleets and to educate employees on low emission and fuel use driving. RACT will also lead by example by exploring these initiatives.
- Supports the Australian Automobile Association's position to regulate vehicle emissions by independently assessing all vehicles on Australian roads.
- Supports the notion for Australia's vehicle emissions standards to be regularly benchmarked against comparable countries.
- Urges the Tasmanian and Australian governments to implement incentives and initiatives that increase uptake of low and zero emission vehicles. These are outlined further in RACT's Low and Zero Emission Mobility Policy.
- Will educate Tasmanians on the benefits of low and zero emission vehicles as well as low emission and fuel use driving.

Fuel quality

RACT

- Urges all levels of government and fuel refineries to implement Europe's 10 ppm standard for sulphur content in Australia as soon as possible, or at least by 2027, in order to introduce Euro 6 emission standards.
 - RACT will work with these stakeholders and the AAA to ensure these fuel standards are realised by 2027.
 - RACT also encourages academic researchers and key stakeholders to conduct any necessary research on sulphur content in order to implement these European fuel quality standards in Australia by 2027.
- Urges the Australian and Tasmanian governments to only grant fuel refineries financial incentives if these incentives are not passed onto motorists as costs. RACT strongly opposes any of these costs being borne by motorists.
- Urges Australian fuel companies to monitor their fuel quality and sulphur content to ensure it is well below the current 150 ppm standard.
- Encourages vehicle manufacturers to continue to invest in low and zero emission automotive technologies.

Scope

Policy Application and Ownership

This policy applies to:

- Tasmanian motorists
- Fuel wholesalers, companies and retailers
- Australian Government ministers
- Tasmanian Government ministers
- The Tasmanian Climate Change Office
- Local government
- The Australian Automobile Association
- State and territory auto clubs

The ownership and responsibility of this policy is with the RACT Board.

Approvals

Date of approval: [insert date]

Date of review: [insert date]

Signature of CEO: [insert signature]