
FCAI Submission in response to the ACCC New Car Retailing Industry market study draft report



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EXECUTIVE SUMMARY

The FCAI welcomes the opportunity to respond to the ACCC's New Car Retailing Industry market study draft report.

The FCAI is the peak industry organisation representing vehicle manufacturers and importers of passenger motor vehicles, SUVs, light commercial vehicles and motor cycles in Australia.

The FCAI has sought to engage constructively with the ACCC throughout the market study. The FCAI notes the recommendations made by the draft report across each of the following matters:

- Consumer rights under the Australian Consumer Law
- Access to service and repair information
- Pricing of genuine parts
- The efficacy of fuel consumption labels

As a general comment, the FCAI and the broader new motor vehicle industry are disappointed in the approach taken by the ACCC in preparation of its draft report. The FCAI offered on several occasions to meet with the ACCC review team to provide technical and expert briefings to assist them to better understand the complexities of how the modern motor vehicle industry actually operates. These offers were not accepted to inform the draft report. However, based on the draft report we again reiterate the importance of engagement with those that actually operate in the new car retailing market. In contrast, it appears the ACCC consulted widely with the aftermarket and consumer groups throughout the report development phase. The ACCC has also prepared a two page summary specifically for the independent repair sector, but not for authorised dealers, repairers or OEMs.¹ Although it is the prerogative of the ACCC to undertake its activities in this way, the FCAI and member companies do not believe that the ACCC has taken a balanced approach and the draft report does not fairly or accurately portray the reality of today's new car market and the availability of service and repair information to competent independent repairers.

Australia has a highly competitive new car retail market, selling around 1.2 million vehicles annually, and this competition brings significant consumer benefit. The Consumer Survey conducted by the ACCC indicates the level of awareness of consumer rights and the key considerations in the purchase of a new vehicle. It is somewhat surprising that the ACCC are under the perception that a consumer's choice to have their vehicle serviced at the authorised dealership, particularly in the first years of ownership, is driven by anything other than value. There should be no fundamental proposition that consumers are acting irrationally if they choose to have their vehicle serviced by the authorised dealer.

The Australian car parc is estimated at over 17 million vehicles and with around 3,500 authorised service and repair facilities located in dealerships, there is a clear need for independent repairers to ensure that this fleet can be serviced. In fact, FCAI estimates that well over 60% of the total car parc is currently serviced by independent repairers, a testimony to the health of the independent repair sector.

¹ <https://www.accc.gov.au/system/files/New%20Car%20Retailing%20Industry%20market%20study-%20independent%20repairers%E2%80%99%20guide%20to....pdf>

The fact that the entire car parc is serviced and maintained would indicate that service and repair information is widely accessible in Australia.

To survive in the Australian new vehicle market there are a range of factors that must be considered including price, quality and reputation. It is not possible to continue to grow in such a competitive market without due focus on all aspects of the market. You cannot “choose” profitability in service and repair. It has to be earned, and the first step in that process is to market a competitive new vehicle to attract custom at the expense of the competition. The ACCC proposition that this initial step is driven by the demand in the subsequent service and repair market does not stand up.

In terms of the discussion on emissions the FCAI simply points out that the Australian industry is following the Government’s mandated testing regime and will continue to do so. Further, there is a well-resourced and properly informed Ministerial Forum considering the issue of new vehicle emissions and that forum is the appropriate place for considerations the ACCC is attempting to promote.

In conclusion, the FCAI again reiterates the need for the ACCC to give due weight to the evidence and insight that is available from the FCAI members to assist in informing themselves on the operation of the new vehicle retailing market.

We look forward to the further consultation.

RESPONSE TO CHAPTER 3

The importance of the ACL

1. The ACL is an extensive piece of legislation which has permeated all facets of commerce in Australia. It is however, of particular relevance to the automotive industry.
2. This is in part because of the consumer focussed nature of the industry. It is also because the ACCC has, on a number of occasions, (including in the Draft Report ²) made the point that the purchase of a motor vehicle is invariably the most, or second most, expensive acquisition a person will make in their lifetime (other than real estate) and accordingly the automotive industry is a focus for the ACCC. The FCAI does not take exception to this, but simply makes the point that the ACL is of particular importance to the automotive industry.

The FCAI's view is that the effective implementation of the current ACL criteria and enforcement of the law is sufficient to provide consumers with significant protection and also sufficient to ensure that the suppliers of products to the Australian market are equally well informed on their responsibilities. The FCAI does not believe that some of the regulatory changes proposed by the ACCC will aid consumers nor increase competition in what is already recognised as a highly competitive market.

3. One objective of the Competition and Consumer Act 2010 ('CCA') is to enhance welfare of Australians through the promotion of competition and fair trading and provision for consumer protection
4. In regard to motor vehicle sales, this is achieved through codification of statutory warranties/consumer guarantees in one accessible document – ACL.

The well-informed consumer

5. Consumers have more access to information than ever before about motor vehicles and their rights in relation to those vehicles. This has been precipitated by improved technology, facilitating greater access to information. Consumers are in a position to engage in thorough research before their first contact with a dealer. Part of this research can include accessing independent reviews of particular vehicles on websites and online discussion forums, in which information may be posted without prejudice or partiality. Any of these avenues are capable of revealing any potential issues with certain makes and models. Given the relative cost of a new motor vehicle and the ease with which most consumers can access the Internet, the likelihood of consumers accessing this information is high.
6. Consumers are not only well informed about products they are considering purchasing, they are also well informed about their rights. As pointed out in the Draft Report,³ 90 per cent of consumers surveyed are aware that they have consumer rights (and 71 per cent have at least a moderate understanding of those rights).

²page 33.

³Page 34.

The powerful consumer

7. The Australian automotive industry is extremely competitive⁴ and as such brand value and reputation is critically important. Problems with motor vehicles or customer service cannot be hidden - disgruntled or dissatisfied customers are very quick to publicise their displeasure and have multiple open web-based forums on which to do so. If there are numerous disgruntled customers, even though they might be geographically dispersed, it becomes very easy for a potential customer to get an immediate sense of any reported potential problems or product defects in a motor vehicle. The old adage was 'one bad experience leads to ten lost sales'. Now, in this connected world, one bad review can lead to a multitude of lost sales. As a result, increasingly there is no 'asymmetry of information' and the market quickly and readily punishes those businesses that supply defective products or an unsatisfactory customer service.

A motor vehicle is not a toaster

8. Motor vehicles are so ubiquitous and have been with us for such a long period of time that the level of engineering sophistication is often overlooked. To be able to get into a car, push the button and be transported in safety and comfort through often harsh conditions, is an amazing engineering feat which should not be taken for granted. Motor vehicles contain more than 60,000 parts and more lines of computer code than a commercial jet aircraft. To have a regulatory regime that treats motor vehicles in the same way as a toaster is problematic. The same can be said for the opposite; to have a regulatory regime that treats a toaster like a motor vehicle can cause problems.

CONSUMERS ENFORCING CONSUMER GUARANTEES

9. The Draft Report asserts that consumers are having difficulties in enforcing the consumer guarantees when problems occur with new vehicles, and that there is a:

'...significant body of evidence suggests systemic failure in consumers enforcing consumer guarantees after the purchase of a new car'⁵

Evidence does not support this

10. In the FCAI's view, the evidence upon which this assertion is based is neither significant nor does it suggest a systemic failure. The evidence seems to be based on some observations by the ACCC and a selective survey conducted by CHOICE.

⁴ For example: There are approximately 65 brands sold in the Australian market representing approximately 17,700 new vehicles sold per brand. In the USA for example, this figure is approximately 255,000 new vehicles sold per brand.

⁵ Page 28

11. The observations by the ACCC⁶ are that:

- over the last 2 years the ACCC has observed an upward trend in the number of consumers contacting the ACCC in relation to issues with cars and has received over 10,000 contacts in total (presumably during this 2-year period);
- new car retailers have featured in the ACCC's top 10 most complained about traders for 20 of the 21 months preceding June 2017; and
- In 2017 nearly 20% of contacts received by the ACCC about consumer guarantee issues have concerned motor vehicles, the second largest industry category of such complaints received.

12. The FCAI would like to make the following points:

- The ACCC refers to 'contacts'. As the FCAI understands it, this could include a simple query about a consumer's vehicle.
- There are no details provided as to what the 'contacts' involved, other than that they related to 'issues with cars'. For example, how many related to the vehicle itself or servicing issues and of those, how many related to authorised dealers as opposed to independent repairers?
- The Draft Report is concerned with the retailing of new vehicles. There is nothing to suggest that the contacts the ACCC refers to only related to new vehicles. Indeed, based on the total number of vehicles on Australian roads (18.8 million as at 31 January 2017)⁷ compared to the number of new vehicles sold each year (approximately 1.2 million), the FCAI suggests that the majority of the 'contacts' did not relate to new vehicles and likely included used vehicles.
- Even assuming all of the complaints related to new vehicles purchased within the prior year, and all of the complaints were justified (assumptions which are unlikely to be true), and every contact related to a different vehicle, 5,000 contacts a year, represents only 0.45% of the 1.2 million new cars sold in both 2015 and 2016.
- In the Issues Paper that was a precursor to the Draft Report⁸ some different figures are referred to. At page 8 the following appears:

'In 2014 – 15, the ACCC and ACL regulators received around 1,800 consumer contacts about consumer guarantee issues relating to cars. In 2015 – 16, the ACCC alone received over 1300 contacts.'

⁶ At page 41

⁷ According to ABS statistics: <http://www.abs.gov.au/ausstats/abs@.nsf/mf/9309.0>

⁸ New Car Retail Industry – a Market Study by the ACCC, issues paper October 2016

Putting to one side questions about what constitutes a 'contact' and what is meant by 'relating to cars' there is a significant difference between the 10,000 contacts referred to in the Draft Report and the approximately 2,600 contacts which the ACCC referred to in the Issues Paper.

13. The FCAI's concern about the lack of detail and proper analysis should not come as a surprise to the ACCC. The FCAI has previously requested details of the contacts⁹ referred to by the ACCC, so that it might fully investigate these contacts. The FCAI received a response to our requests on Friday 15 September, however this is obviously far too late to allow input into the already released draft report which was the purpose of the request.
14. The second piece of 'evidence' is a CHOICE survey of car owners conducted in 2016 which found that about two-thirds of the participants had experienced problems in the first five years after purchasing a car and 15% had been unable to resolve those problems. The FCAI makes the following comments on this survey:

- The survey looked at consumers who had purchased a new car in the last five years. The survey results are based on only 1,505 participants, or 0.027% of the number of new cars sold during this period (approximately 5.5 million) – hardly a representative, reliable or robust sample.
- Apparently 15% of the respondents who had a problem with their vehicle were unable to resolve the problem (i.e. 148 people or approximately 10% of the total sample). If this percentage is extrapolated it suggests that there are approximately 550,000 consumers who purchased their vehicle within the last five years who have an unresolvable problem with their vehicle. It also means that every year there are an additional 110,000 people who have an unresolved problem. This is simply not borne out by any other data source available, nor by the experience of the Distributors and dealers.

Should a consumer have a problem with their vehicle which was unable to be resolved would, in all likelihood, take some sort of further action – for example contacting the ACCC. The ACCC says that it has had 10,000 'contacts' over two years. This is orders of magnitude less than the number of 'unresolved claims' according to the CHOICE survey. This casts significant doubt over the CHOICE survey results and they therefore should not be relied upon or taken into account in making a sophisticated assessment of a market.

15. In short, the ACCC does not put forward any reliable empirical evidence on which to base its assertion that there is a *'systemic failure in consumers enforcing consumer guarantees after the purchase of a new car'*.
16. Some limited guidance can be gained from the experience in overseas jurisdictions. For example:

⁹ The FCAI wrote to the ACCC on 16 November 2016, attaching its response to the Issues Paper. On page 10 of this response, the FCAI makes a request for details of the contacts referred to in the Issues Paper.

- In Canada, there is a national dispute resolution program for disputes with vehicle manufacturers called the Canadian Motor Vehicle Arbitration Plan (CAMVAP). In 2014 the CAMVAP statistics revealed that out of 5,130 initial enquiries, 858 applications were sent to eligible consumers, 357 applications were returned and 222 cases were arbitrated, conciliated or a consent award issued¹⁰.

Assuming that the number of applications sent to eligible consumers (858) is a reasonable reflection of the number of consumers who felt that their vehicle was defective, this represents approximately 0.05% of the vehicles sold during that time.¹¹

- In New Zealand, there is a Specialist Motor Vehicle Disputes Tribunal (MVDT). For the period 1 July 2014 to 30 June 2015, 258 applications were filed with the MVDT and 154 were heard by the MVDT (which includes some carried over from 2013/2014). Assuming the 258 applications all related to alleged defects in motor vehicles, this represents approximately 0.1% of the number of new and ex-overseas vehicles sold in New Zealand in this period¹².

17. There are two further matters in the Draft Report that, while not empirical evidence, appear to be relied on by the ACCC to justify their assertion that there is a '*systemic failure in consumers enforcing consumer guarantees*'. The first is that the ACCC refers to four instances where it is suggested that consumers have been treated inappropriately in light of the ACL.¹³ Without knowing all of the facts, the FCAI cannot draw any conclusions but the FCAI obviously agrees that dealers and Distributors must comply with their obligations under the ACL.
18. The FCAI does not accept, however, that referring to a small number of complaints received by the ACCC constitutes evidence of a systemic failure within the industry. Likewise, there are numerous examples of Distributors responding to customers' concerns in ways that go well beyond their legal obligations. By way of illustration here are a few examples:
 - A customer took their vehicle to a dealer late on a Friday afternoon complaining that their vehicle's engine would not stop. The vehicle was more than three years old and there was some doubt about the cause of the concern. The customer required transport because their child was ill. The dealer did not have a loan vehicle available but the Distributor arranged for a rental vehicle to be provided to the customer for the weekend at the Distributor's cost. On the following Monday, the Distributor arranged for a loan vehicle from its fleet department to be provided to the customer. Even though there was some doubt that the customer may have contributed to the concern, the vehicle was repaired and provided to the customer at no cost.
 - A customer complained that diesel fumes were entering the cabin of their vehicle, which was nearly four years old. The cause appeared to be an aftermarket cable which had been fitted by the customer and passed through the firewall. The dealer properly sealed

¹⁰ CAMVAP, 2014 Annual Report available at: <http://www.camvap.ca/annual-reports/2014-annual-report/>

¹¹ Based on a new vehicle sales of 1.7 million

¹² Approximately 200,000 New Zealand Motor Vehicle Registration Statistics, New Zealand Transport Agency

¹³ See box 3.4 at page 43.

the hole in the firewall at no cost to the customer. The customer subsequently complained that he was still able to smell exhaust fumes. The dealer was unable to find any evidence of any exhaust in the cabin so the Distributor arranged for the pollen filter in the vehicle to be replaced and sent to the Distributor's technical department for inspection. The technical department confirmed that there was no sign of exhaust gas entering the cabin.

The customer's wife was very sick and was scared of even the thought of diesel fumes. Notwithstanding that it was clear that there were no diesel fumes entering the cabin, the Distributor made a significant contribution to enable the customer to trade out of the customer's diesel vehicle into an equivalent petrol version of the vehicle.

- A customer and his family were driving from their home in Western Australia to Brisbane to attend a family function. On the return trip, just out of Brisbane there was a problem with the vehicle. Upon inspection, the engine needs to be repaired. The Distributor was contacted and paid for the seven people to fly back to their home in Western Australia, at a cost of approximately \$7,000. The Distributor also replaced the entire engine assembly, rather than repair the engine so as to expedite the repair process, and paid for the vehicle and caravan it was towing to be transported from Toowoomba to Western Australia at no cost.
 - A vehicle which was seven years old had an engine failure. The vehicle had been service outside of the dealer work. The dealer advised that a short engine assembly replacement was required. The customer expressed some misgivings about this and so the Distributor paid for a full long engine replacement. A free loan car was provided to the customer and the repair was carried out at no cost to the customer.
 - A customer who was a senior citizen complained of concern that his cruise control function seemed to operate automatically, causing the vehicle to accelerate to higher speeds when he was driving at slower speeds. The dealer and the Distributor's engineering staff undertook a road test which confirmed that the customer kept knocking the cruise control button on top of his windscreen wiper stalk. Given the customer's concerns and driving style, the Distributor replaced his older model vehicle with a current model larger and higher specification vehicle, where the cruise control operation is located on the steering wheel at no cost to the customer.
- 19.** The second matter to which the ACCC refers, on a number of occasions, is that it has instituted proceedings against Ford Australia. The FCAI notes that Ford Australia strongly refutes the ACCC's allegations and is defending these proceedings. As the legal process has not yet been completed in relation to these proceedings no conclusions can validly be drawn from it to support the ACCC position.

Draft recommendation 3.1

20. The ACCC supports three proposed amendments to the ACL¹⁴ which the FCAI comments on below.

Proposal 1 – any failure within a designated period entitles a consumer to a replacement or refund

21. The first proposal is that the ACL be amended to specify that where a good fails to meet the consumer guarantees within a short-specified period of time, a consumer is entitled to remedies of a refund or replacement without needing to prove a ‘major failure’. This is purportedly aimed at providing increased certainty for consumers in asserting their rights to a refund, replacement or repair and to avoid cycles of failed repairs¹⁵.
22. As an initial point, there is no evidence presented by the ACCC that customers are having a disproportionate number of problems with their vehicles shortly after they have purchased their vehicles.
23. While there is no reference to what constitutes a ‘short period of time’ the ACCC seems to be suggesting that the terms of the undertaking given by Holden might be appropriate. This was in the following terms:

‘Owners of new Holden vehicles who experience a problem with their car that causes it to become immobile and no longer driveable within 60 days of its purchase can claim a refund or replacement without the need to demonstrate a major failure.’

24. The FCAI agrees that what constitutes a ‘major failure’ needs to be clarified and the FCAI can see that, on a superficial level, the proposal might be appealing. However, when considered in more detail, it is clear that the proposal does little, if anything, to increase certainty. This is because it raises – or should raise – the same issues as are currently raised by a claim under the ACL.
25. Firstly, the FCAI presumes that the ACCC cannot be suggesting that a consumer would be entitled to a refund under this proposal if the consumer was responsible for the vehicle becoming immobilised e.g. improper use, accident or otherwise due to a cause which is not attributable to the manufacturer.
26. Secondly, notwithstanding that the proposal refers to ‘any’ failure, surely the ACCC cannot be suggesting that a refund would be required if the immobilisation was simply the result of, for example, a battery lead becoming loose which is able to be rectified by anyone (including the consumer) simply tightening the battery lead, or perhaps a flat tyre. This would be ludicrous. A consumer should not be entitled to a full refund or replacement due to a superficial or inconsequential failure for sophisticated products such as a new motor vehicle as it would be a completely uneconomical resolution having regard to the relative ease and cost of repair.

¹⁴ Draft recommendation 3.1, page 33

¹⁵ Page 32

27. However, both of these exclusions are already in the ACL: a consumer is not entitled to a replacement if their goods have a 'minor' defect (or more correctly, in respect of which there is a failure of a consumer guarantee which is not a major failure) nor if the defect has been caused by the consumer¹⁶.
28. In short, Proposal 1 does nothing to clarify a consumer's rights.

Proposal 2 – multiple minor failures constitute a major failure

29. The second proposal recommended by the ACCC is to amend the ACL to clarify that multiple non-major failures can amount to a major failure. Presumably this is a proposal akin to a so-called 'lemon law'. Lemon laws have already been much discussed and reviewed in Australia and the FCAI has made a number of submissions on why they are undesirable and unnecessary.
30. The FCAI is strongly of the view that a separate 'lemon law' should not be introduced as:
- the current legislative regime is more than adequate to address issues to do with defects in vehicles generally¹⁷;
 - the experience with lemon laws in other jurisdictions has been inconclusive at best.

Proposal 3 – greater disclosure and extended warranties

31. Proposal 3 recommends that there be greater disclosure in relation to extended warranties. If it is felt that providing consumers with additional documentation when they are purchasing their vehicle will achieve this, then the FCAI is prepared to work with authorities to come up with some appropriate wording. The FCAI also notes that extended warranties which are offered to consumers when they are purchasing their new vehicle are not branded products offered by Distributors – they are usually offered by dealers in addition to the manufacturer's warranty or are insurance products.
32. The ACL provides for a prohibition against false or misleading representations concerning a requirement to pay for a contractual right that is wholly or partly equivalent to any condition, warranty, guarantee, right or remedy that the person has under law - these would include the Consumer Guarantees contained in the ACL regime.
33. Proposal 3 also recommends introducing a 10-day cooling off period. The FCAI is supportive of the view that a cooling off period is desirable, however it considers three clear days, rather than 10, to be sufficient. This is consistent with legislation in a number of jurisdictions dealing with the purchasing of a motor vehicle¹⁸ and is also consistent with the cooling off period when purchasing a house.¹⁹

¹⁶ In the case of the guarantee of acceptable quality – section 54(6)

¹⁷ ACL s 259(2)(b) already provides that multiple failures can entitle a consumer to reject a vehicle.

¹⁸ See, for example, the *Motor Car Traders Act 1986* (Vic) s 43.

¹⁹ See, for example, the *Sale of Land Act* (Vic) s 31.

'MAJOR FAILURE'

34. Central to many of the issues raised by the ACCC is the definition of 'major failure'. The FCAI has some specific comments in response.

Clarify what is meant by 'major'

35. The consequences of a breach of a consumer guarantee being a 'major failure' are significant. In particular, the consumer (subject to section 262 of the ACL) may elect to reject their vehicle and obtain a refund. Indeed, this seems to have been recognised in the use of the word 'major'.
36. The current definition of 'major failure' is problematic and may lead to significant uncertainty for consumers, authorised dealers and distributors. Section 260 of the ACL defines a major failure by reference to five alternatives. Four of these alternatives ((b)-(e)) are consistent with the word 'major': they use words such as; 'significant', 'substantially unfit', 'cannot easily be remedied'; all relative and consistent with a failure being 'major' (as opposed to 'minor'). Subclause (a) however, is different. It provides that a major failure is if:

'The goods would not have been acquired by a reasonable consumer fully acquainted with the nature and extent of the failure'.

37. Motor vehicles are highly advanced pieces of machinery and it is not unreasonable to expect that in their early life, there might be some issues that need to be rectified. By way of example, if there was a vehicle which had a small easily rectified defect (say a small dent in the bumper bar) and a 'reasonable consumer' was asked if they would buy this vehicle, as opposed to one without the defect, what consumer would say yes?
38. As pointed out in the introductory remarks to this submission, the complexity and technical sophistication of a motor vehicle is completely remote from those of a simple consumer item like a toaster, and it should not be treated in the same way. The application of the ACL where a motor vehicle is concerned requires greater flexibility and nuance in order to deliver fair outcomes for both consumers and Distributors/dealers.

Make allowance for use of vehicle

39. There is another problem with this section. Given that the period of the consumer guarantee is not specified and a major failure entitles a consumer to a refund of any money paid by the consumer for the goods, there is no provision in the law for use, enjoyment and depreciation of a vehicle notwithstanding that years may have passed since delivery and the customer has enjoyed uninterrupted use during that time. The benefit to the consumer can amount to many thousands of dollars, which becomes an unfair windfall gain to the consumer and a significant cost to the Distributor. It is not uncommon for consumers to allege a major failure when suffering financial hardship in order to relieve their liability under finance contracts or when the finance contract balloon is due. The FCAI is of the view that where the consumer is entitled to a 'refund', then an appropriate allowance should be made to take into account the

consumer's use of the vehicle and depreciation and the ACCC should recommend that the law be amended in this regard.

40. Further the FCAI believes that such an approach would be entirely in keeping with what a reasonable consumer would expect in the event of a major failure that occurs at a time well after the time of purchase, and where the consumer has, prior to the time of the major defect presenting itself, had the benefit of unfettered use of the motor vehicle. Put another way, the FCAI believes reasonable consumers would not expect to be entitled to a windfall benefit in the event their motor vehicle suffers a major failure well after the time of purchase.
41. In addition, by not making an allowance for prior use, an “all or nothing” approach to dispute settlement is fostered. This increases the likelihood of parties adopting entrenched positions and hampers the speedy resolution of disputes.
42. In situations when a refund is required, the retailer or manufacturer should be able to obtain a refund for currently unrecoverable statutory charges which would need to be paid again for the same vehicle when repaired and re-sold, such as stamp duty, Luxury Car Tax, registration and compulsory third-party insurance. The ACCC should recommend that the law be changed in this regard.

Damage to vehicles and accessories

43. The ACL currently provides that consumers cannot return a vehicle for refund or replacement if the vehicle has been damaged after it was delivered to the consumer (section 262 (1)(c)). The FCAI agrees with this but is of the view that it should be extended and clarified to include consumer modifications.
44. Often, shortly after buying a vehicle, consumers will fit accessories to their vehicle. These accessories often require modifications to be made to the vehicle. These modifications may not ‘damage’ the vehicle in the normal sense but can require significant work by the dealer to restore the vehicle to its original condition in order to rectify a minor or major failure. If a vehicle is returned with accessories fitted, the dealer has to bear the costs of returning the vehicle to its original condition, before the dealer can re-sell the vehicle. It is normal industry practice to remove accessories before re-sale because they are generally tailored to each customer’s unique needs.
45. The dealer does not have to accept a vehicle which has been damaged by the consumer and consistent with this, should not have to accept a vehicle which has had accessories fitted, the removal of which would require major rectification work to be carried out by the dealer and the ACCC should recommend that the law be amended in this regard. The consumer would not be denied a remedy as he/she would still be entitled to sue for damages on diminution of value of the vehicle if that can be established.

Minor failure, major fix

46. Sometimes a minor part of a more significant component fails and it is quicker and easier to replace the whole component (e.g. transmissions). This can often be to the benefit of the consumer because the vehicle ends up with an ‘as new’ component and the consumer does not have to deal with the inconvenience associated with significant components having to be entirely dismantled, have the minor part replaced and then reassembling the component. Unfortunately, whilst this course of action is the most logical and practical way of dealing with the repair of a minor part of a more significant component, the FCAI is aware of situations where the fact that the more significant component has been replaced, in and of itself, has been used by consumers against the Distributor/dealer as demonstrating that the failure was in fact a major failure because it required the whole component to be replaced.

HANDLING CONSUMER CONTACTS

47. The Draft Report asserts that the Distributors’ complaints handling systems fail to adequately take consumer guarantees into account and that Distributors focus on their warranty obligations to the exclusion of their consumer guarantee obligations²⁰.
48. The FCAI’s response is that:
- as the law currently stands, providing that the mandatory wording advises customers of their ACL rights is provided with the vehicle warranty, there is nothing inappropriate in Distributors and dealers focusing on their warranty obligations in assessing vehicles requiring repair, unless the consumer has made a specific enquiry about their ACL rights; and
 - the statements made by the ACCC about how Distributors deal with customer contacts are in many cases assertions rather than conclusions justified by appropriate evidence.

The law

49. The recent (1 September 2017) case of ACCC v LG²¹ (**‘LG Case’**) is very relevant in this context. The facts of the case are straightforward and were non-contentious. A number of consumers had purchased LG televisions which subsequently experienced a defect after the expiration of the express warranty provided by LG. The ACCC alleged that LG had communicated with those consumers, retailers and repairers as though the LG warranty was the only source of their rights in relation to the defects, whilst refraining from making any express reference to the ACL. The ACCC claimed that this was a misleading “half-truth” in light of the fact that the ACL provided consumers with certain rights in respect of defective goods (namely, the consumer guarantees).
50. Justice Middleton found against the ACCC. He held that if a specific enquiry was made by a consumer only concerning the LG warranty or asking for a TV to be replaced or repaired, a response by LG would not be misleading if it was confined to that specific enquiry, even if no

²⁰ Page 44.

²¹ Australian Competition and Consumer Commission v LG Electronics Australia Pty Ltd [2017] FCA 1047.

mention was made of the ACL.²² In other words, LG was not required to mention the ACL rights of a customer, unless the customer specifically enquired about them.

51. It is instructive to look at one of the customers by way of example.
52. SS and CS purchased a LG television from The Good Guys in Western Australia ('**CS television**'). At the time of purchasing the television, they were given a LG warranty card which set out their rights under the manufacturer's warranty and noted that they had other rights including rights under the ACL. By 9 May 2014, the CS television had developed a fault where the right side of the screen was solarised and a different colour. This was assessed by an authorised LG repairer, who determined that the CS television had a faulty panel.
53. The LG Warranty had expired and the retailer asked LG, '*if you would cover this under warranty*'.

54. LG replied:

'LG are happy to assist with the cost of Parts Only, labour would be covered by your own cost.

*Please let me know if you wish to proceed.'*²³

55. Justice Middleton held that:

*'I do not conclude that LG represented that CS and SS were only entitled to have the TV repaired and were liable for the labour costs of repair. Upon this specific enquiry, LG was under no obligation to otherwise inform the consumer of the existence of the ACL or its availability to their position.'*²⁴

56. As a final point, the FCAI would like to clarify the use of the term 'goodwill payment'. The ACCC seems to be suggesting that Distributors use this term as meaning that a 'goodwill payment' is something which is beyond their legal obligation under the ACL. This is not the way the term is used by most Distributors. It is generally used within the industry to describe a payment which is not clearly within the terms of the express warranty and it does not suggest that Distributors are maintaining that they have no legal obligation to the customer under the ACL. The Distributor may or may not have such an obligation but the use of the word 'goodwill' in describing an out of warranty repair does not determine that issue.

Distributor's complaints handling systems are appropriate

57. The FCAI agrees with the ACCC that it is crucial for Distributors to have effective processes to respond to contacts by customers, not only to ensure that the Distributor is complying with the law, but also because consumers have the option to publicly complain about their experiences on social media and in online forums in which Distributors have no real opportunity to defend or clarify their position and still have to suffer from the consequential

²² Paragraph 8.

²³ Paragraph 65.

²⁴ Paragraph 68.

reputational damage. It is simply not in the best interest of a Distributor to ignore or delay responding to a consumer complaint, whether or not legitimate.

- 58.** The ACCC refers to alleged delays in Distributors resolving complaints made by customers. At the time of a consumer complaint, it is completely reasonable for Distributors to try and verify the complaint and replicate the alleged fault. Indeed, it would be naive to believe that all consumer complaints are justified without investigation. Sometimes people's financial circumstances change and the prospect of being reimbursed the full purchase price of their vehicle becomes extremely tempting. (This might explain why there is a significant increase in complaints about major failures in vehicles towards the end of their finance contracts or during times of financial hardship.) Sometimes, people simply change their mind after having purchased and driven their vehicle and want their money back – e.g. “buyer’s remorse” - and seek to create circumstances for a major failure – for example by alleging repeated faults which cannot be replicated by the dealer or manufacturer and/or where no faults are recorded in the vehicle’s diagnostic systems.
- 59.** The right for a manufacturer to investigate a complaint is supported by the LG Case in which Justice Middleton said:
‘LG was entitled to require a consumer to satisfy LG that a claim was accurate and substantiated. Even if a claim was made under the ACL, LG would have been entitled to accept or reject the claim, taking the consequences for either approach. LG would have been entitled to ask a consumer to substantiate a claim.’²⁵
- 60.** Often verifying a claim is a straightforward process. Sometimes, however, it is not. For example, problems in vehicles can be very intermittent and difficult to replicate. With the best will in the world, it can be a very time-consuming task for a dealer to replicate a problem.
- 61.** Having replicated the problem, it can then sometimes be difficult to ascertain the cause of the problem and how best to repair it. Sometimes this is done through a process of trial and error – similar to a diagnosis processes in other industries. This is an appropriate way to investigate vehicle faults and an economical way of resolving the issue.
- 62.** The FCAI also notes the ACCC’s comments on the adequacy of the complaints handling systems seems to focus entirely on systems of distributors and their authorised repairers and glossed over the need to also ensure that the complaints handling systems for the independent repair sector are effective. There is no evidence (in fact little evidence of anything other than opinions in many areas) that the ACCC has considered that the complaints about servicing of new vehicles is limited to distributor authorised repairers. There does not appear to be an appropriate degree of balance in this particular area given that the ACCC is aware of, and promotes the right for, consumers choosing to have their vehicle serviced or repaired outside the dealership system? The FCAI hopes that the ACCC is not suggesting that there is only a need for a sophisticated complaints handling system in respect of the distributors and their dealers, and not for the other independent elements of the motor vehicle parts supply and service network.

²⁵ Paragraph 51.

'CULTURE OF REPAIR'

63. Given the technical complexity of a new car, it is not surprising and the FCAI submits not at all inappropriate that a culture of repair might have emerged in the automotive industry. As mentioned, this is an appropriate and economical way of resolving vehicle faults. Indeed, except in those instances where it is clear that there has been a major failure, the FCAI does not see anything wrong with Distributors and dealers, in the first instance, attempting to repair a vehicle. This is subject to one proviso – that the consumer is not detrimentally affected by having his/her vehicle repaired²⁶.
64. The FCAI suspects that in many instances when the ACCC is referring to 'repair' the Distributor/dealer will in fact be examining the vehicle and trying to ascertain the details of the problem. For the reasons expressed previously, it is reasonable and appropriate for the Distributor to be able to inspect the vehicle and seek to verify the alleged complaint.

INFORMATION AT THE POINT OF SALE

65. The ACCC proposes to work with Distributors and dealers to develop a concise and simple explanation of consumer guarantees and the interaction with warranties which should, as industry best practice, be provided to consumers at the point of sale of a new vehicle.
66. As mentioned previously, the FCAI supports, as a matter of principle, the view that consumers should be as well-informed as possible about their legal rights and it would benefit consumers, dealers and Distributors to reduce the uncertainty that currently exists in the application of consumer guarantees to advanced motor vehicles. Accordingly, the FCAI encourages the ACCC to work with it, and other industry participants, to develop a practical and agreed document which will simply and clearly assist all industry participants to apply their rights and obligations in a certain way.

LOGBOOKS AND SERVICE MANUALS

67. The FCAI agrees that explicit statements in logbooks and service manuals to the effect that a warranty will be void if an independent repairer services or repairs the vehicle may depending on their wording be a breach of the ACL. However, it is entirely appropriate for a Distributor to advise a consumer, via a logbook or service manual, that they recommend having their vehicle serviced or repaired by an authorised dealer using genuine parts.
68. As has been noted on a number of occasions, motor vehicles are highly sophisticated machinery which requires well trained technicians and specialised equipment to be properly serviced and repaired. It might well be that some independent repairers are sufficiently trained and have the necessary equipment to properly service and repair a Distributor's vehicle. But the Distributor cannot be sure of this as they have no influence or control over independent repairers. The Distributor cannot mandate that the independent repairer undertakes all of the necessary training or that the independent repairer purchases the necessary expensive equipment. On the other hand, Distributors (at considerable expense) develop and deliver product specific training to their authorised dealers, and otherwise have

²⁶ This might mean, for example that the consumer is provided with an equivalent loan vehicle for free.

a direct contractual relationship with them. Distributors can therefore be confident that their dealers have the necessary training and equipment. In light of this, Distributors cannot and should not be expected to endorse independent repairers and should be entitled to recommend – even strongly recommend – that their vehicles be repaired and serviced by their authorised dealers.

69. The Draft Report refers to an ACCC consumer survey²⁷ which found that 90% of respondents who chose to have their car repaired for their most recently experienced problem went to an authorised dealer to undertake that repair and 86% of respondents went to a dealer for their vehicle's routine servicing. The survey also found that 30% of respondents went to a dealer because they believed it was compulsory according to the logbook or warranty or were worried about voiding the warranty.
70. The FCAI agrees with the ACCC that if the only reason the 30% of people went to a dealer was because they believed it was compulsory according to the logbook or warranty or were worried about voiding the warranty, then they should be made aware that this may in fact not be the case. However, the fact remains that at least 70% of consumers went to an authorised dealer, presumably because they preferred this option to an independent repairer.
71. It is also appropriate for Distributors to recommend that customers only use genuine parts when having their vehicle serviced or repaired. While some non-genuine parts may well be suitable, the Distributor cannot guarantee this and some inferior quality non-genuine parts can have a significant adverse impact on the consumer's vehicle and can even jeopardise the safety of the consumer. Some examples of this are provided at: www.genuineisbest.com. The FCAI also questions whether the ACCC has in fact tested whether the independent repair sector is advising consumers when they are not using genuine parts, a requirement that each of the major organisations have agreed is necessary following discussions with the responsible Commonwealth Minister and under the [agreement] voluntary code.

NON-DISCLOSURE AGREEMENTS

72. A non-disclosure agreement (NDA) is generally entered into between a Distributor and a consumer for a number of reasons, including the following:
- where the parties have been unable to conclusively determine whether a major failure occurred, a Distributor may offer to settle the matter but will require a NDA to prevent the consumer from publicly disparaging the brand; and/or
 - where a Distributor settles a matter and in the interest of good customer service, offers additional compensation to the consumer (such as free scheduled service, contribution to the cost of other repairs, discount or voucher for repairs).
73. In either case, the Distributor has a legitimate interest in keeping the terms of the settlement confidential and it normal practice for resolution of disputes of any type to be subject to an NDA. In fact, it should be noted that the extensive use of NDAs in commercial dispute settlement negotiations is a legal tool developed over a considerable amount of time to help parties to resolve disputes whilst still protecting their legitimate interests. In this regard, the FCAI draws the ACCC's attention to the prolific use of NDAs as a tool in general alternative

²⁷ See page 39.

dispute resolution negotiations and settlements across a range of disputes from minor complaints to multi-million dollar law suits across many areas of commercial activity. The point here is that far from being seen as a tool that limits consumer rights, NDAs are often used to deliver consumers benefits over and above what they might otherwise be entitled to at law (e.g. where a Distributor or dealer offers to settle a dispute for an amount more than what the Distributor believes the consumer is entitled to at law which it may choose to do on a cost benefit basis rather than a merits of the case basis, but subject to an NDA). In this context, the use of NDAs is perfectly legitimate and in line with established and accepted legal practice developed over many years.

- 74.** NDAs do not necessarily reduce the amount of information available to a consumer in any significant way. As noted above, there are a plethora of online resources and forums which detail the experiences of consumers and problems that they have experienced with certain makes and models of cars. Any suggestion therefore that the use of NDAs is somehow underhanded or against consumers interests, is patently incorrect.

The industry also strongly refutes the unsubstantiated suggestion by the ACCC that the industry is using non-disclosure agreements to suppress dissemination of safety risks that could impact all road users. Consumer safety is of paramount importance to our members and to suggest there is a systemic industry issue in this regard is unfounded and the FCAI would be very concerned if the ACCC included this suggestion in its final report.

INDEPENDENT DISPUTE RESOLUTION OPTIONS

- 75.** The Draft Report states that:

*'...if independent dispute resolution options are not fully effective in requiring the provision of remedies in accordance with consumer rights under the ACL, there is little incentive for a manufacturer or dealer to offer ACL compliance remedies at an early stage in a dispute. This greatly undermines the application of the ACL to the new car retailing industry.'*²⁸

- 76.** With respect, this is disingenuous. Distributors and dealers do not comply with the ACL only because of the likelihood that there is some sort of immediate resolution process. As has already been explained, they have every incentive to comply with the ACL and indeed, to go beyond compliance. The impact on their brand, sales, aftersales and repurchase opportunities caused by disgruntled customers is a far greater incentive than the immediacy of an independent dispute resolution option.

Assertion – inconsistencies and errors in interpreting ACL concepts

- 77.** The Draft Report seems to be suggesting that dispute resolution bodies (presumably Tribunals and Courts) incorrectly interpret ACL concepts²⁹. The FCAI is surprised by this statement. The independence of Tribunals and Courts is something that should be recognised and upheld. If decisions made by the Courts and Tribunals are felt to be incorrect, there are rights of appeal which can be actioned.

²⁸ Page 50 of the Draft report

²⁹ Page 52 of the Draft Report

'Reasonable consumer test'

- 78.** The Draft Report makes particular reference to the 'reasonable consumer test' and seems to be suggesting that the use of independent experts by Tribunals and Courts to determine whether there has been a major failure is in some way wrong.
- 79.** Making a finding that a vehicle has a 'major failure' has significant consequences and is a matter of technical fact. In the FCAI's view, it is right for a dispute resolution body to take this matter seriously and, if necessary, hear expert evidence by a qualified mechanic or similar expert. There seems to be implicit assumption in the assertions made by the ACCC that all claims made by consumers which come before Tribunals or Courts are justified and/or are able to be simply identified. For reasons previously mentioned this is unlikely to be the case. The FCAI submits that dealers and manufacturers on the whole do the right thing and rectify genuine faults, and it is only spurious or the more complex or difficult claims that make it to a full hearing where both parties arguments are likely to be relatively balanced. In these sorts of cases, it is simplistic and unrealistic to expect the decision maker to be able to make a decision in all instances without reference to an independent expert.
- 80.** The ACCC has referred to a 'case study'³⁰ to apparently illustrate that Tribunal proceedings can be complex and lengthy.

The ACCC has referred to a 'case study' (Rae v Volkswagen Group Australia Pty Ltd) to apparently illustrate that Tribunal proceedings can be complex and lengthy. The FCAI agrees that the particular case highlighted by the ACCC was lengthy but, as can be seen from chronology below, the length of the proceedings had little to do with the Distributor or the Tribunal.

- On 21 October 2010, the Applicant (Dr Rae) filed an application in the Queensland Civil and Administrative Tribunal against Volkswagen Group Australia Pty Ltd.
- The proceedings were listed for mediation on 23 December 2010. The mediation was unsuccessful and orders were made for the progression of the proceedings. One of those orders was that the Applicant file and serve any statements of evidence in support of the application by 28 January 2011. A hearing date of 24 February 2011 was also set.
- On 2 February 2011 the Applicant had not filed any statement of evidence and accordingly the proceedings were listed for directions on 6 February 2011. This hearing was adjourned due to the Applicant's unavailability.
- On 7 February 2011 the Tribunal made an order allowing the Applicant further time to file his evidence until 14 February 2011.
- On 15 February 2011 the Applicant had still not filed any evidence and on 16 February 2011 the Tribunal ordered that the proceedings be listed for compulsory conference on 22 February 2011.

³⁰ In Box 3.10 at page 54

- At the compulsory conference on 22 February 2011, the Tribunal made an order allowing still further time for the Applicant to find his evidence which he was ordered to do by 22 March 2011. The hearing date of 24 February 2011 was vacated.
 - At this point, it is worth noting that the fact that the hearing could not proceed on 24 February 2011 was not in any way the responsibility of the Distributor and that three of the hearings up to this point were due to the Applicant not having filed his evidence as he was ordered to do on 23 December 2010.
 - On 21 March 2011 lawyers for the Respondent received a document from the Applicant purportedly being the Applicant's evidence. The Respondent was of the view that the material did not comply with the orders and accordingly made an application to the Tribunal. The application was listed for directions on 18 May 2011.
 - The hearing on 18 May 2011 was adjourned to 30 May 2011 due to the Applicant's unavailability.
 - At the hearing on 30 May 2011 the Applicant wanted to be heard on an argument that certain notices to produce documents which he had filed had not been complied with. Accordingly, the Tribunal ordered that the Applicant had until 13 June 2011 to make submissions in relation to that assertion and the proceedings were listed for a further directions hearing.
 - On 18 November 2011 orders are made by the Tribunal setting the matter down for final hearing on 12, 13 and 14 March 2012.
 - On 3 March 2012 the Applicant sought an adjournment of the hearing date.
 - The proceedings were listed for a directions on 9 March 2012 and orders were made that the hearing be adjourned and that the Applicant provide the respondent with a copy of a CD containing a voice recording. This was not provided.
 - The proceedings were listed for directions on 25 July 2012. This directions hearing was adjourned due to the Applicants unavailability and orders were made ex-parte.
 - The proceedings were set down for 8 and 9 April 2013.
 - On 20 March 2013 the Applicant sought an adjournment of the hearing dates. The Tribunal refused the Applicant's application.
 - On 5 April 2013, (one business day before the hearing) the Applicant filed an application for leave to withdraw the proceedings. No reasons were given by the Applicant.
 - The Applicant did not appear on 8 April 2013 and the proceedings were dismissed.
- 81.** The FCAI is disappointed that the ACCC has referred to this case, without explaining what really happened. This is symptomatic of the approach the ACCC has taken to its investigation.
- 82.** The apparent frustration of the ACCC that Courts and Tribunals don't simply make a decision based on the 'reasonable consumer test' highlights one of the contentions the FCAI has been

making for some time: deciding what constitutes a 'major failure' is often not straightforward. If an independent decision maker, with the benefit of reasoned arguments, feels they are unable to make a decision without reference to an independent expert, then how can it be expected that a Distributor can make such a decision almost instantaneously, as seems to be suggested by the ACCC.

RESPONSE TO CHAPTER 4

ACCC draft recommendation: A mandatory scheme should be introduced for car manufacturers to share with independent repairers' technical information, on commercially fair and reasonable terms. The mandatory scheme should provide independent repairers with access to the same technical information which car manufacturers make available to their authorized dealers and preferred repairer networks. The mandatory scheme should place an obligation on car manufacturers and other industry participants to achieve the aims and principles set out in the Heads of Agreement.

- 83.** The FCAI and member companies recognise and readily acknowledge the role that independent repairers play in providing customers with alternatives to the services offered to customers by authorised dealers, and understand the potential appeal that independent repairers may have to customers from a cost perspective. Choice of service and repairer remains the prerogative of the consumer.
- 84.** Despite the findings of the Commonwealth Consumer Affairs Advisory Council's (CCAAC) that there does not appear to be any evidence of systemic consumer detriment at present, the FCAI and its members developed the Voluntary Code of Practice for Access to Service and Repair Information for Motor Vehicles to ensure that the service and repair of motor vehicles is carried out in a manner that best protects the consumer's interest in their vehicle. To assist in achieving this, the Code facilitates access for independent repairers to service and repair information and provides a methodology to seek information where it appears unavailable. The Code considers the particularities of the Australian market and has considered relevant aspects of other countries' activities in this area.
- The objectives of the Code are:
- To ensure that vehicle repairs are carried out in a professional manner and to ensure that the safety, structural integrity, regulatory compliance, presentation and utility of the vehicle is restored or maintained;
 - to provide an information pathway to Repair Information that may be used by parties outside of the Authorised Dealer network; and
 - to provide a fair means of access to Repair Information for parties outside the Authorised Dealer network.
 - To inform consumers about the parts used in their repairs (genuine or non-genuine).
- 85.** The FCAI supports a responsible approach to ensuring that the public have an opportunity to choose the repair or service facility that best suits their needs. While a wide range of information is available from a variety of sources, the Code does not require the provision of certain information including that relating to security, safety and environmental compliance or performance by OEMs.
- 86.** The FCAI and member brands continue to support the operation of the Voluntary Code and its ongoing development, two and a half years after its formal introduction.
- 87.** In its draft report, the ACCC concluded that the FCAI's voluntary commitments to share technical information have not been successful in meeting their aims and there has been only a limited improvement in access. However, in 2012 the final report of the CCAC, 'Sharing of repair information in the automotive industry', noted that "there does not appear to be any

evidence of systemic consumer detriment at present.”³¹ Despite this, the ACCC recommends regulatory intervention to mandate the sharing of technical information with independent repairers on “commercially fair and reasonable terms”.³²

88. The FCAI and member companies are disappointed the ACCC has come to this view, and believe that the ACCC has not considered all aspects of this matter in forming its initial judgement. As the FCAI has repeatedly demonstrated, FCAI member companies have shown a willingness to provide repair information to independent repairers that enable those independent repairers to perform repair services for vehicle owners, and the amount of this information being made available continues to increase. We are not aware of widespread consumer complaints about the inability of vehicles to be serviced by the market. As we have noted before, certain information is not provided to independent repairers because it contains highly sensitive information.

Coverage and real-time access

89. The ACCC recommends that OEMs should “make available to independent repairers, in real time, the same digital files and codes, such as software updates and re-initialisation codes, made available to authorised dealers to repair or service new cars”.³³ The FCAI believes that the ACCC has not properly considered the implications of such an undertaking. According to the ACCC, there are approximately 40,000 independent repair and service businesses operating in Australia.³⁴ Providing access to all repair and service businesses in the manner proposed by the ACCC to all OEM information would be extremely difficult, and the implications for OEMs and the administrative burden this would place on them would be significant. An additional consideration is the protection of security information embedded in modern vehicles to protect owners of vehicles from criminal activity; the protection of safety information to ensure protection of the driver and occupants and maintain ADR compliance; and the protection of environmental information to ensure the vehicle complies with relevant ADRs.
90. This is compounded by the fact that not all OEMs provide the same technology platform or standard for information. In its draft report, the ACCC notes that “...a website presence is preferable for independent repairers as it is less likely to cause delays in accessing technical information and is generally consistent with the online access provided to authorised dealers and preferred repairer networks”.³⁵ Whilst some OEMs are able to provide extensive information through a stand-alone subscription system that enables access to equivalent systems that Dealers access, this is not uniform. Some manufacturers have technical challenges due to the structure of their data and systems. Others simply do not have the volume of sales to justify the considerable investment in dedicated online systems. Because of Australian market competition, sales volumes are often a fraction of other markets, making the business case for dedicated Australian market websites difficult. Indeed, some brands that have made the capital investment in such websites report low access rates by independent repairers. Toyota Motor Corporation report that active subscriptions to its online service portal in 2017 year to date number 1268 individual users, with only 293 of that

³¹ Commonwealth Consumer Affairs Council, *Sharing of repair information in the automotive industry*, p.iv

³² ACCC new car retailing industry draft report, p.58

³³ ACCC new car retailing industry draft report, p.91

³⁴ ACCC new car retailing industry draft report, p.7

³⁵ ACCC new car retailing industry draft report, p.85

number coming from independent repair shops. As a point of comparison, we estimate that there are at least 3 million Toyota motor vehicles in service today. If investment in software and systems is mandated which is not justified by the low demand, then the cost will ultimately be passed on to consumers.

91. These structural factors in turn present difficulties for 'real time access' and the ability of all brands to provide dedicated services to independent repairers. The FCAI is concerned that the ACCC does not have a realistic understanding of the complexity of obtaining and applying this information to a specific matter and the time it takes to obtain that information for those that do not have a focus on particular brands. The FCAI again offers to provide the ACCC with relevant technical experts in this domain. The FCAI also provides a response to findings made by Cartech later in this document.
92. A proper definition of 'real time access' and the practical implications of what this means for our fragmented retail market also needs to be properly contemplated. In this context, it needs to be recognised that the FCAI has previously offered the AAAA a dedicated resource to expedite resolution of queries. The AAAA declined this offer.
93. The FCAI also again makes the point that third party providers also play a role in the provision of service and repair information, both in Australia and internationally. Competition between these independent providers will inevitably mean that the quality of information being provided is of a high standard. The MTA/VACC Tech-on-Line tool is a good example, and we note that they advertise that 98 per cent of matters to their call centre are resolved in a single phone call.³⁶

Investment in equipment and training

94. Intrinsically linked to access to information is the requirement for increasingly advanced levels of training and equipment, increasingly tailored to specific brands. This is part and parcel with the reality of increasing levels of sophistication in the design and construction of modern motor vehicles and increasingly specialised vehicles. This was also acknowledged by the ACCC draft report where it states that "...repairing or servicing a car is no longer just about a car's mechanical components: today's new cars contain in excess of 10 million lines of computer code... New cars are now effectively 'computers on wheels' and require sophisticated software to work."³⁷ This point is only compounded by the fact that in the Australian market today, some 67 brands selling more than 400 separate models compete for approximately 1.2 million new car sales annually.
95. In the FCAI's view, mandating the sharing of technical information, will not lead to better outcomes for consumers. Successful repair and servicing of new vehicles can only be achieved when highly specialised technical information is used by fully trained personnel using recommended diagnostic equipment and stipulated specialised tools.
96. As significant pieces of complex machinery and computer coding, modern motor vehicles require increasingly sophisticated levels of training and knowledge by mechanics and technicians working on them. Increasing levels of sophistication require increasing levels of

³⁶ <https://www.tech-centre.com.au/tech-advisory/>

³⁷ ACCC new car retailing industry draft report, p.59

specialisation. Given the pace and rate of technological change, including increasing levels of hybridisation, increasing numbers of pure electric vehicles and connected and autonomous driving technologies entering the fleet, such training needs to be far more sophisticated and ongoing. FCAI members and their authorised repairers invest significant amounts of financial and non-financial resources into training to ensure that authorised service providers have the expertise and capabilities necessary to meet the high customer service expectations and quality standards that are required of authorised service providers. Training is undertaken for every new model and every new technology introduced by the car brand. We consider it unlikely that independent repairs could develop a business model that will invest in the training, equipment and tooling to safely repair a large number of brands and models.

- 97.** Consumers are entitled to expect the service technicians and equipment used to conduct repairs and maintenance likewise reflects the most up to date and sophisticated level of expertise available to protect and maintain consumers' substantial investment and vehicle safety. The resources invested in training by OEMs and authorised service providers means that, whenever a vehicle owner chooses to have their vehicle serviced at an authorised service centre, they know that they will receive a high-quality service that meets minimum mandated standards set by the brand, from an expert specifically trained in the servicing of those vehicles. This is particularly important when it comes to performing complex services such as the programming of on-board computers on which the proper operation of the vehicle itself, in the manner specifically designed by the OEMs engineers, is reliant. With the constant change to vehicle platforms and models by the industry, maintaining technician competency is a continuous process.
- 98.** It is the FCAI's view that given the plethora of brands, makes and models in the Australian market today, the business model of many independent repairers (essentially to service and repair all makes and models) is not likely to be a viable position into the future, given the investment costs associated with both training and equipment. As the FCAI submission to the ACCC in 2016 on this made clear, through no fault of the manufacturers, this equipment is expensive. The ability of an independent repairer to afford or commercially justify some of this expensive equipment is not a matter that should be addressed by legislation. It is simply a product of the competitive market in which repairers, both authorised and independent, are operating. It is not the role of the ACCC or legislature to seek to preserve a market which would otherwise change because of technological advancements and market forces. Regulating a system that mandates providing highly technical and brand-specific information without also ensuring those who receive it make the comparable financial and non-financial investment in skills, training and equipment is in itself unlikely to deliver optimal outcomes to consumers.

Security information

- 99.** The FCAI contends that the ACCC's recommendation on service and repair is contradictory. The ACCC argues that it wants to enact the undertakings of the original Heads of Agreement but then goes on to say that access must include security information. The original Heads of Agreement excluded security information due to the absence of a rigorous process to protect consumers' privacy, security and safety. To proceed without first addressing the need for appropriate arrangements to ensure the integrity of security information, together with environmental and safety information, would be reckless. The FCAI does not believe that the ACCC has adequately addressed the concerns held by OEMs about the widespread release of

security information, and the potential negative implications for consumers and public safety. This was addressed succinctly by the National Motor Vehicle Theft Reduction Council in its submission to the ACCC on this topic:

“...the NMVTRC would argue that security information is by its very nature different to the general information because of its critical importance to safeguarding the vehicle from criminal attack. The current controls over the sharing of this information in Australia has helped deliver the nation low rates of electronic criminal manipulation by world standards and the NMVTRC’s view is that this approach should be maintained³⁸”

100. The FCAI and its members continue to hold the position that there is a need to ensure that certain information is not generally available. This is particularly so where that information can enable, or assists in enabling, theft of vehicles or could impact the safety of vehicle occupants or other road users, or could lead to the disabling of vehicle emissions controls. The information embedded in a motor vehicle’s operational system is core to protection of the vehicle. A very limited range of authorised persons have access to this data under current arrangements, and this should remain the case. Calls for wider access to this information will not assist consumers but will lead to increased risk and undoubtedly increased administrative and compliance complexity. The FCAI does not believe that this information should be made more broadly available. To illustrate the aftermarket’s capacity and capability to alter electronic controls, there are many aftermarket companies selling engine ECU computer chips to increase engine performance. Such modifications can alter a vehicle’s emissions in a completely unregulated way and with a detriment to the health of the broader community. The FCAI and its members would be extremely concerned that if safety and security information were made available more broadly, similarly unregulated outcomes could take place, to the detriment of the motor vehicle occupants, other road users and pedestrians. This is particularly concerning given the low rates of inspection of vehicles in service on Australian roads.

Intellectual Property protection

101. In putting forward its draft recommendation on mandatory sharing of service and repair information, the ACCC has remained silent on how it proposes FCAI member companies would have their intellectual property protected. Manufacturers make significant investments in developing new vehicle technologies and the diagnostic equipment and repair processes to service and maintain their products and the research and development costs need to be recovered by sales. It is unreasonable to expect independent workshops or aftermarket equipment manufacturers to benefit from intellectual property investments without appropriate costs. It would also be unacceptable for Australian regulation to facilitate the unlawful theft of intellectual property for the use in aftermarket parts.

Response to specific claims

102. In its draft response, the ACCC commissioned an independent mechanic to source service information and data for the service of new motor vehicles. The report, undertaken by Cartech, was prepared for the ACCC on 3 July and assessed 12 problems identified in ten

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<https://www.accc.gov.au/system/files/National%2520Motor%2520Vehicle%2520Theft%2520Reduction%2520Council.pdf>

vehicles. The ACCC also asked the FCAI to respond to these claims. In Cartech’s review of the FCAI responses, it noted that “...this report should be taken as representing the result of investigations related to the 10 given cars listed (total 12 reported issues) and should not be generalised to the availability of information from the manufacturers of these cars more broadly.”³⁹

103. To this end, the FCAI notes that the Cartech investigation modified several of its initial findings, both in relation to information provided by the FCAI response, and to the fact that the ACCC supplied incorrect and inaccurate information to the investigator, meaning an incorrect assessment was originally made by the investigator.⁴⁰

104. The FCAI has again asked member companies for feedback against the claims in light of the position taken by the independent investigation at Appendix B of the supplementary report provided by Cartech.

Brand	Issue	Cartech position	OEM response
2011 Holden Barina	ECU update	Length of time taken to respond and ease of identifying email address make it ‘unlikely a qualified well-resourced independent repairer would be aware of it and be able to take advantage of the information supplied from the service’	<p>The Holden acdelcotds.com website home page has an 1800 phone number to call from AU for assistance. This is the preferred method of contact. There appears to be general confusion over the difference between the various diagnostic and programming platforms offered. User guides and training material are available from the 'View User Guides' and "View TIS2Web Video Tutorials" links on the acdelcotds.com home page.</p> <p>The Cartech report makes comments regarding their difficulty finding the Holden information until the region and language was selected. This website is identical to that used by all GM Dealers Globally without issue. The illegibility described as "formatting problems" are the direct result of the user</p>

³⁹ Supplementary report on the ability of independent repairers to access information and data to repair or service new cars: Review of May 2017 FCAI submission, 12 July 2017: p.6

⁴⁰ Supplementary report on the ability of independent repairers to access information and data to repair or service new cars: Review of May 2017 FCAI submission, 12 July 2017: p.8

			<p>not using the GM recommended software (IE11). The user hardware and software requirements can be found by selecting 'system requirements' link on the ACDelcoTDS.com homepage. These system requirements are common with that required by all GM Dealers globally.</p>
2013 Mazda CX5	Headlight and radio problems/oil light reset	Browser issue initially meant required information was not available.	<p>All required information was available in the manual, consistent with what is provided to Mazda dealers. In this case Cartech used a web browser which is not compatible the format and structure of the material.</p> <p>Mazda Corporation supply global workshop manual material built using ActiveX framework which is a proprietary structure for web-based material. This is compatible with and designed for Internet Explorer which is the browser recommended for use for all Mazda Dealers. As it is consistent with what is provided to Mazda Dealers, a message clarifying this browser recommendation has been shown since launch in 2016 for all subscribers on www.mazdamanuals.com.au as follows:</p> <p>“Mazda Manuals requires the use of a specific browser to ensure correct functionality. To view the manuals, we recommend you use only Microsoft® Internet Explorer® 11. You can download Internet Explorer</p>

			from here . Full functionality of the workshop manuals cannot be guaranteed when using alternative browsers.”
2014 Mitsubishi Triton	Heater core and dash removal	Cartech was unable to procure a workshop manual from a dealer.	A workshop manual (and scan tool) is unnecessary for such a basic and simple repair undertaken by a competent trained service technician. This seems to be supported by the fact that the independent repairer’s usual third party information sources such as VACC, Haynes, Autodata also don’t provide substantially more information for this repair.
2013 Chery J1	Diagnostic information and wiring diagrams	Dealers advised Cartech they could not assist independent repairers with information.	<p>Cartech made contact with Ateco and were directed to a dealership to enable a diagnostic test to ascertain the vehicle’s problem. Cartech refused to provide the vehicle to the specified dealer.</p> <p>As Ateco no longer import Chery vehicles, customers are requested to contact Ateco’s national service manager on a case-by-case basis.</p> <p>Cartech made no further contact with any dealer as suggested.</p>
2015 Volkswagen Golf	Programming the instrument cluster	Gaining required user ID and user license not possible for Australian independent repairers	<p>The instrument cluster is part of the vehicle immobiliser system and the data is intentionally not made available as it could potentially be used for the theft of motor vehicles.</p> <p>Volkswagen Group Australia treats this data with the utmost respect and confidentiality.</p>

FCAI comment

- 105.** The FCAI has continued to engage in good faith on this matter with other signatories to the Access to Service and Repair Heads of Agreement, and has made offers of dedicated resources to expedite resolution of matters brought under the Terms of that Agreement and the FCAIs supporting voluntary code. Other parties to the Voluntary Agreement have not acted in the same good faith.
- 106.** As has been pointed out elsewhere in this response, the areas of security, safety and environmental information were excluded from coverage in the Voluntary Agreement for sound consumer protection reasons. The FCAI does not believe these should be altered.
- 107.** The FCAI remains very concerned that the ACCC's proposal to mandate the sharing of service information, including security, safety and environmental information, would add unnecessary complexity and cost to FCAI members without delivering a substantively different outcome to consumers.
- 108.** Other explanations such as the inability of the repairer to properly undertake the work or poor management would seem more plausible explanations for the problems encountered by consumers in their dealings with generic independent repairers. To overcome some of these issues the FCAI members would have thought it prudent of the ACCC to encourage the independent repair sector to co-operate with the Industry Agreement and use the system provided prior to recommending any regulatory system. To date, the evolving system is all-but untried despite the rhetoric from the independent repair sector.
- 109.** We also note that at the specific direction of Minister Billson, the signatories to the Heads of Agreement agreed that consumers would be informed in advance and provided with choice whenever a repairer intends to use non-genuine parts. Contrary to the Agreement, the AAAA's voluntary code of practice encourages aftermarket repairers to flout this requirement, saying simply that that is 'good practice' to inform the customer of the source of the part rather than an obligation on the repairer to do so:
- It is good practice to inform the customer of the source of the part. It is also good practice to inform the customer that most independent parts are of equivalent quality and generally cheaper than the vehicle manufacturers branded and packaged parts.⁴¹*
- 110.** The FCAI believes the ACCC should consider the compliance of independent repairers with this Code and the Heads of Agreement requirement that consumers are informed of the type of part being fitted to their vehicle, for example whether an aftermarket repairer installing non-genuine parts without the consumer's prior approval should be considered as a misleading practice.

⁴¹ <https://www.aaaa.com.au/wp-content/uploads/2016/03/AAAA-Choice-of-Repairer-Code-of-Practice.pdf>
p.12

RESPONSE TO CHAPTER 5

- 111.** The FCAI does not intend to comment in much detail on the ACCC's statements in respect of Parts Needed to Repair and Service New Cars.
- 112.** That said, it is interesting that the conclusions noted earlier in the draft report clearly draw the conclusion that distributors hold down the price of new vehicles with the sole purpose of locking in consumers to the service and parts necessary to maintain that vehicle, thus leading to some form of economic profit in the service and repair market. While this analysis ignores the significant number of vehicles serviced outside the authorised dealer network it is also inconsistent with the ACCC's findings in Chapter 5 that it is less clear that this pattern of pricing, if it existed, would create consumer detriment.⁴².
- 113.** On a more general level it is important to note that the authorised distributors are required to stock a full range of parts and factory supplied accessories for a significant period of time after the vehicle or particular model is entered into the market. Unlike the distributors of aftermarket parts, this includes many thousands of low cost and low margin products such as clips and springs, but they all add up and cost not only to store but to monitor. Aftermarket parts suppliers focus on the high- volume, higher priced parts and this reduces their holding costs. In fact, what actually happens is the distributor subsidises their operation as they are not required to hold all the necessary parts. If they were, their parts pricing could be significantly different. Importantly this also applies to the body repair industry where there are clear examples of repairers ordering a range of low-priced body fixings and the aftermarket is supplying the more expensive components.
- 114.** When the cost of this requirement is considered over a ten plus year period it is easy to see why the prices for genuine parts sourced through the distributors authorised supply chain may be more expensive.
- 115.** Behind every genuine part is extensive testing to ensure replacement parts perform to design intent. No sooner has this investment hit the market than it is copied and aftermarket suppliers begin to supply product that may take the place of otherwise genuine parts. It is clear that such free riding on the design and intellectual property of the motor vehicle manufacturers' investment will cause price disparity in the market place. It does not mean that distributors are pricing parts at margins reflecting some form of consumer captivity.
- 116.** There are of course significant risks for consumers when they use (or when repairs use) non-genuine parts. The OEM specified parts are engineered to ensure that they have a durability and performance standard to meet the design intent. There is no guarantee that non-genuine parts will meet the materials and machining standards of the OEM specified replacement. Just because it fits doesn't mean it's right or built to the high OEM standard.
- 117.** As noted elsewhere in this submission the technology in motor vehicles is ever advancing. With this advancement comes inter-connectability and inter-reliance of parts to other parts and systems in the vehicle. This relationship between parts can be linked to a wide range of factors including materials composition (such as in brake pad construction) and safety systems. While it is possible that aftermarket parts manufactured to specifications that do not meet the OEM quality control criteria may work, they may not work when it counts most.

⁴² ACCC New Car Retailing Industry – a market study, Draft Report August 2017, page 93

This quality assurance is also relevant to the continual compliance with the certification standard (ADR) and also the ANCAP rating of the vehicle as tested. Any variation in component manufacturing or composition that has not been subjected to the full ambit of testing as required under the ADR's or the ANCAP rating system can prove sub-standard.

RESPONSE TO CHAPTER 6

Fuel Consumption and Emissions

118. Real world fuel consumption is affected by many factors that have little to do with the vehicle, including weather, driving behaviour (e.g. speed and acceleration) road environment (e.g. congestion and road surface) and driver demographics.⁴³

119. The following diagram (Figure 6.1) taken from the BITRE Information Sheet 91 (p.14) depicts the range of factors that affect the vehicles real world fuel consumption.

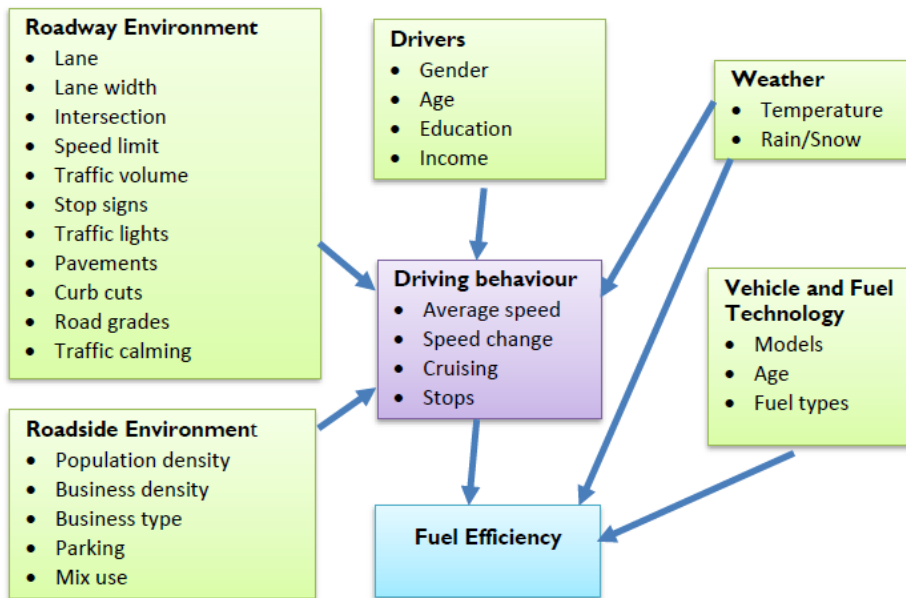


Figure 6.1 Diagram showing factors that affect vehicle fuel efficiency

120. To improve real world fuel consumption, a whole of government approach that addresses the following range of issues is required:

- Fuel quality standards, which must match the emission technology in our vehicles and how to encourage/ensure consumers use the correct fuel grade.
- The Australian consumer preference for heavier vehicles with larger and more powerful engines and automatic transmissions.
- The use of light vehicles in Australia; in particular, how to relieve congestion in our major cities. There is significant potential benefit, a reduction of up to 10% of fuel use, from vehicle-to-infrastructure (V2).
- Driver behaviour and how eco-driving can reduce fuel use.

⁴³ Australian Government, Bureau of Infrastructure, Transport and Regional Economics (BITRE), 2017, Information Sheet 91 – Fuel economy of Australian passenger vehicles – a regional perspective.

- Vehicle technology and the refueling infrastructure required to support new technologies such as electric vehicles, hybrid electrics and hydrogen fuel cells.
- Increasing consumer demand through raising awareness and creating incentives for people to adopt new technology.
- Steps to reduce the age of the vehicle fleet, as newer vehicles are more fuel efficient.

121. To focus on only one area will increase the overall cost to the community without delivering the expected CO₂ and pollutant emission reduction benefits.

Draft recommendation 6.1

Changes to the fuel consumption label affixed to new cars should be considered to improve the comparative use of information supplied. Introducing a star-rating system or annual operating costs may minimise the extent to which consumers interpret an 'absolute' fuel consumption/emissions values as equivalent to what they achieve in real-world driving.

122. All manufacturers selling vehicles in Australia test their vehicles to measure and report on fuel consumption according to the mandatory regulatory standards defined in ADR 81/02.

123. Consideration of change to the test standard and/or label required by ADR 81/02 should be undertaken by the Ministerial Forum on Vehicle Emissions as part of the implementation of the outcomes of their activities.

124. The FCAI expects that, once the policy decisions are finalised, the government will need to introduce the necessary legislation and regulatory standards to implement the decisions on a CO₂ (or fuel efficiency target), introduction timing of Euro 6 pollutant emission standards and introduction of improved fuel quality standards to match engine and emission system operability.

125. Any change to ADR 81/02 will require a consequential adjustment to the Luxury Car Tax thresholds for "fuel-efficient vehicles."

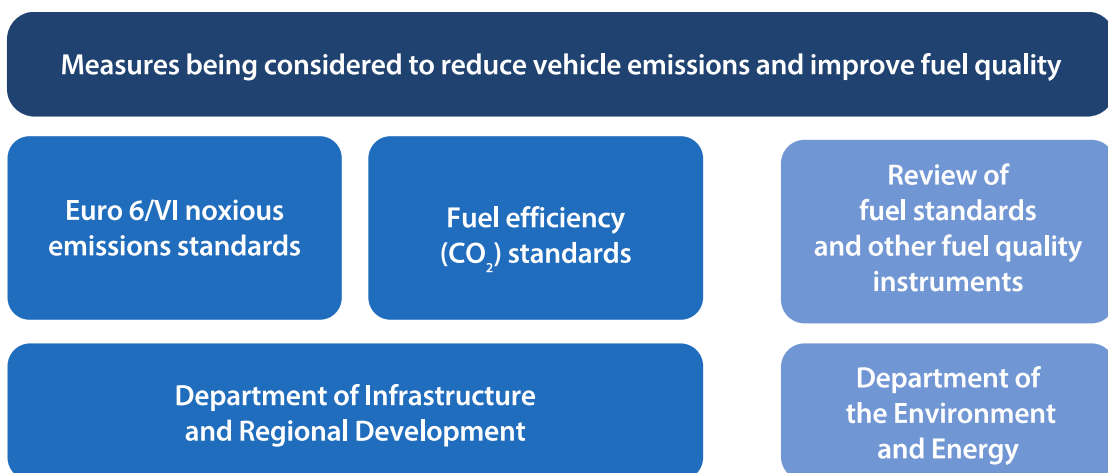
126. Draft recommendation 6.2

The ACCC supports measures to enhance the quality of information supplied to consumers currently being considered by the Ministerial Forum on Vehicle Emissions, including the replacement of the current fuel consumption and emissions testing regime with the new Worldwide Harmonised Light Vehicles Test Procedure, a more realistic laboratory test, and the introduction of an on-road 'real driving emissions' test.

127. The FCAI welcomed the establishment of the Ministerial Forum on Vehicle Emissions and its subsequent work as vehicle pollutant emission standards, CO₂ emissions and fuel quality standards are interrelated and must be considered as a single system to deliver the environmental and health benefits from reductions in light vehicle CO₂ emissions and vehicle pollutant emissions.

- 128.** The FCAI’s longstanding position is that CO2 standards or targets, pollutant emission standards and fuel quality standards all need to be considered together, as they are all interrelated. This position is not unique and is shared by the global automotive industry, regulators and research organisations alike.
- 129.** A whole-of-Government approach is required to incorporate all associated issues, including fuel quality standards, which have a significant impact on vehicles’ ability to meet both GHG (CO2) and air pollution emission standards. In the absence of such an approach, Australians will not receive the full benefit of the additional cost for improved emission technology in new light vehicles.
- 130.** The Government has recognised the inter-relationship between fuel consumption (CO2), pollutant emissions and fuel quality standards by the formation of the Ministerial Forum on Vehicle Emissions. Accordingly, the Ministerial Forum on Vehicle Emissions has a comprehensive package of activities as shown by the following diagram extracted from the Discussion Paper “Better fuel for cleaner air” (Figure 6.2):

Figure 6.2 Ministerial Forum on Vehicle Emissions Activities⁴⁴



- 131.** Modern vehicles are very complex with a range of sophisticated mechanical and electrical components and electronic modules that are integrated to deliver the performance, safety and emissions expected by customers and government.
- 132.** Vehicles are designed and developed to meet fuel consumption (CO2) targets and air pollutant emission standards with an expectation of fuel quality in a particular market. To continue to deliver reduced CO2 emissions and corresponding expected air quality benefits (i.e. reduction in pollutant emissions) with the introduction of advanced vehicle emission standards, market fuel of the relevant standard (i.e. consistent with the EN fuel standards⁴⁵) must be available. If market fuel of the necessary standard is not utilised, higher exhaust emissions (both CO2 and pollutants) will be generated during a vehicles’ operation with lower than expected environmental and health benefits.

⁴⁴ Australian Government, Department of the Environment and Energy, “Better fuel for cleaner air”, Discussion paper, December 2016 (DEE)

⁴⁵ EN are European Standards published by the European Committee for Standardisation (CEN)

133. The interaction of CO₂ targets, pollutant emission standards and fuel quality standards is a complex issue. Recognising the benefit to all stakeholders, from an understanding of the operation of engine and emission system technology, in 2016, the FCAI commissioned a Melbourne based firm, ABMARC, to prepare a technical report to explain how a spark ignition petrol engine works with a focus on designs for light duty vehicles and the technologies required to meet future emission standards (contained in Appendix ?).⁴⁶

134. ABMARC summarised its key findings into a two-page infographic (Figure 6.3) covering:

- 1.** Fuel, engine technology and exhaust after treatment must be considered as a system to reduce both CO₂ and pollutant emissions
- 2.** The types of engine technology along with the benefits and downsides, e.g. gasoline direct injection (GDI) engines have improved fuel efficiency (compared to multi-point fuel injection), but the combustion process produces particulate matter that must be treated by an exhaust after treatment system with a particulate filter.
- 3.** The main components of the exhaust after treatment system, i.e. catalytic convertor and particulate filter (required by GDI engines to meet Euro 6c and 6d particulate requirements).
- 4.** The importance of fuel standards and in particular the impact of sulphur on the catalyst and how higher RON provides for higher engine efficiency and reduces CO₂.

The conclusions from the ABMARC study included:

- Achieving low vehicle emissions with spark ignition engines requires a compromise between pollutants and CO₂.
- Low vehicle emission can only be achieved using engine and exhaust after-treatment technology that is complemented by high quality fuel.

⁴⁶ ABMARC, 2016, Technical Report: Engine and Emission System Technology, Spark Ignition Petrol Euro 5 & Beyond, Light Duty Vehicle, August 2016 (ABMARCb)

Figure 6.3 Petrol Engine and Emissions System Technology

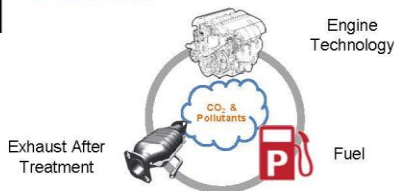
PETROL ENGINE AND EMISSIONS SYSTEM TECHNOLOGY
Spark Ignition Petrol: Euro 5 & Beyond **ABMARC**

INTRODUCTION

Advanced engine technology, exhaust after treatment and high quality fuel are all required to deliver low CO₂ and pollutant emissions. Modern petrol engines are highly complex and provide a compact, economical power plant that is capable of meeting the customer requirements of light duty vehicles while satisfying stringent global standards which limit CO₂ and pollutant emissions.

In order to ensure performance and durability for the designed vehicle service life, careful consideration must be made to meet the needs and limitations of the engine and emission reduction technologies.

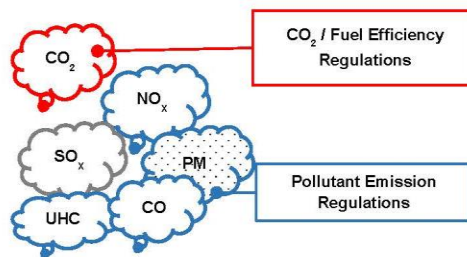
01 OVERVIEW



Low vehicle tailpipe emissions require advanced engine technology, exhaust after treatment and high quality fuel.

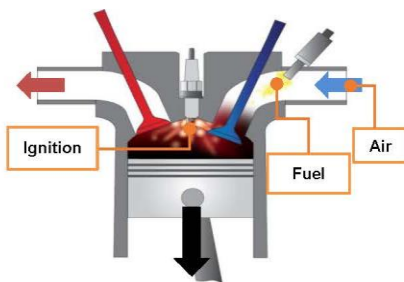
Pollutants from Combustion

Pollutants are produced during combustion due to the engine design and operation combined with impurities in the fuel



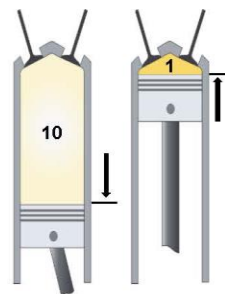
02 ENGINE

Petrol Combustion



Fuel, air, compression and a source of ignition are required for combustion within an engine.

Compression Ratio



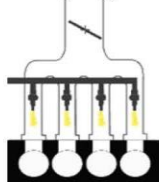
Compression ratio is the ratio of the volume of air and fuel that enters the engine divided by the final, compressed volume prior to combustion. This is presented as 10:1, for example.

Increasing compression ratio increases efficiency and reduces CO₂ emissions, but makes an engine more prone to knocking.

Fuel Injection Types

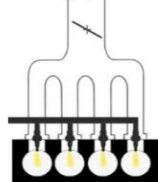
Current vehicles use either Multi Point Fuel Injection (MPFI) or Direct Injection (DI). The proportion of petrol engines using DI has increased over the last ten years due to the reduction in CO₂ emissions and increased power that is offered over MPFI. This helps vehicle manufacturers meet increasingly stringent global CO₂ and greenhouse gas standards.

Multi-Point Fuel Injection (MPFI)



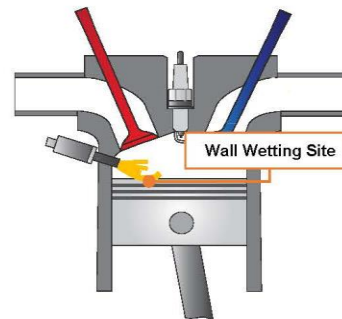
- One fuel injector per cylinder
- Fuel is injected into the air intake
- Good fuel mixing

Direct Injection (DI)



- One fuel injector per cylinder
- Fuel is injected directly into the cylinders
- Improved combustion

Particulate Formation



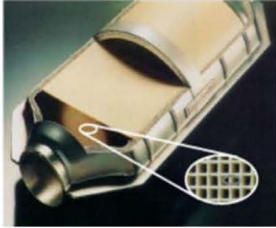
- DI engines are more prone to particulate production than MPFI as fuel is sprayed directly into the combustion chamber.
- Fuel that hits relatively cold surfaces like pistons, valves and cylinder walls leads to particulate formation, through a mechanism known as wall wetting.

PETROL ENGINE AND EMISSIONS SYSTEM TECHNOLOGY
Spark Ignition Petrol: Euro 5 & Beyond



03 EXHAUST EMISSIONS REDUCTION

Catalytic Converter



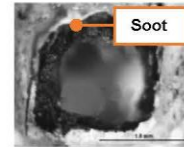
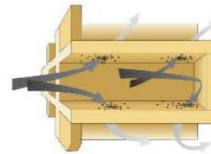
All petrol vehicles are fitted with a catalytic converter in order to meet stringent emission standards.

Source: AECC

- It encourages reactions between the pollutants and oxygen in the exhaust gas, forming CO₂ as a by-product.
- Pollutant conversion efficiency is sensitive to exhaust gas air: fuel ratio, temperature and deactivation (poisoning) from sulfur compounds.
- The efficiency of catalytic converters tends to reduce over time due to detrimental conditions, however, they are rarely replaced or renewed.

Particulate Filter

In order to meet European Euro 6c and 6d emission standards, all vehicles with direct injection petrol engines will require particulate filters.



Sources: Corning & Argonne National Laboratory

- A particulate filter is fitted in the exhaust system to trap soot particles in microscopic pores of a ceramic or metallic honeycomb.
- Pore size is around 11 times thinner than a human hair.
- Up to 90% of the mass of particles produced by the engine can be trapped, reducing tailpipe particulate emissions.

04 AUSTRALIAN FUEL

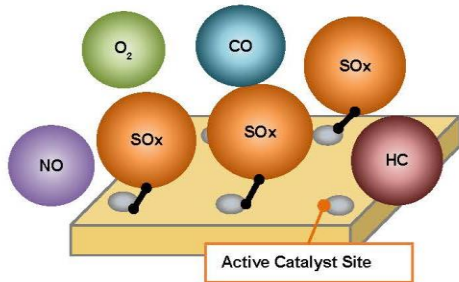
Fuel Sulfur Content

Sulfur in fuel forms compounds during combustion which inhibit the performance and durability of catalytic converters, increasing pollutant emissions. Other advanced markets have lower maximum sulfur content.

Petrol Type	Minimum Octane Rating	Maximum Sulfur Content
ULP	91 RON (Lower Octane)	150 ppm
PULP	95 RON (Higher Octane)	50 ppm
	(From 2017)	10 ppm

RON = Research Octane Number
 ppm = parts per million

Impact on Pollutants

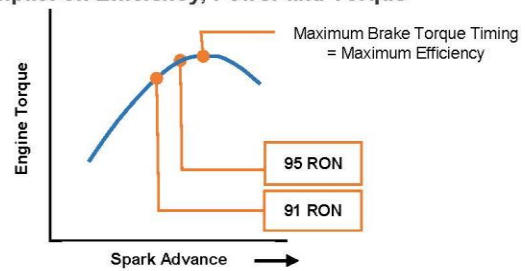


- The higher sulfur content of 91 RON ULP leads to higher levels of sulfur oxides (SO_x) in the exhaust gas.
- SO_x inhibits catalytic converter performance by bonding with the catalyst sites, reducing the reactions between other pollutants.
- 91 RON ULP leads to increased CO, UHC and NO_x emissions compared with 95 RON PULP due to its higher sulfur content.

Fuel Octane Rating

Higher octane fuel resists engine knock and enables high compression ratio engines to improve fuel efficiency and reduce CO₂ production. The European fuel standard requires a minimum octane rating of 95 RON.

Impact on Efficiency, Power and Torque



- For modern engines designed to use 95 RON fuel, using 91 RON will likely result in engine knock.
- To reduce engine knock, spark advance is retarded. This reduces the engine torque and decreases engine efficiency.
- Using 95 RON enables the engine spark timing to operate closer to the point of Maximum Brake Torque Timing (MBT)
- 95 RON enables higher engine efficiency, reducing CO₂

CONCLUSION

Achieving low vehicle emissions with spark ignition engines requires a compromise between pollutants and CO₂.

Low vehicle emissions can only be achieved by using engine and exhaust after treatment technology that is complemented by high quality fuel. 95 RON fuel offers a reduction in real world CO₂ and pollutant emissions over 91 RON.

From 2017, Europe, Japan and the USA will all have fuel standards with a maximum sulfur content of 10 ppm, enabling advanced engine and exhaust emission reduction technologies to meet stringent pollutant emission regulations in both the real world and in the laboratory.