

8 April 2016

# Submission to the Vehicle Emissions Discussion Paper

## ABOUT US

Set up by consumers for consumers, CHOICE is the consumer advocate that provides Australians with information and advice, free from commercial bias. By mobilising Australia's largest and loudest consumer movement, CHOICE fights to hold industry and government accountable and achieve real change on the issues that matter most.

To find out more about CHOICE's campaign work visit [www.choice.com.au/campaigns](http://www.choice.com.au/campaigns) and to support our campaigns, sign up at [www.choice.com.au/campaignsupporter](http://www.choice.com.au/campaignsupporter)

# CONTENTS

INTRODUCTION .....	3
Fuel efficiency standards .....	4
Improving Information .....	8
Implementation of Euro 6/VI Noxious Emissions Standards for Light and Heavy Vehicles .....	12

## INTRODUCTION

CHOICE welcomes the opportunity to comment on the Federal Government's Vehicle Emissions Discussion Paper. For an overwhelming majority of consumers (89%) the fuel efficiency rating of a new car is important when deciding which model of car they will purchase.<sup>1</sup> Vehicle emissions are not only important to those who wish to make environmentally conscious purchases, but more broadly because more efficient cars are cheaper to run. The wild fluctuation in petrol prices over the past 12 months has shown how this major expense can either improve or deteriorate a household budget, with little control or influence from consumers themselves. However a fuel efficient vehicle will always cost less to run, despite these fluctuations.

It is crucial therefore that the right incentives are in place for fuel efficient models to be sold in Australia, and this requires mandatory emissions standards in line with leading markets overseas. However, as the Volkswagen scandal has shown, mandatory standards are not enough to ensure consumers benefit from lower fuel consumption. While it is mandatory to display the fuel consumption of new vehicles sold in Australia, it is evidently not mandatory that this information be accurate. Stringent real-world testing is needed. Without a reliable standard on emissions which is comparable with other leading markets, Australia risks becoming a dumping ground for inefficient and dirty cars, costing consumers at the pump.

## Summary of recommendations

CHOICE recommends that:

- Australia adopt mandatory carbon dioxide emissions standards to create the right incentives for fuel-efficient cars to be made available to Australian consumers;
- The Federal Government consider existing standards from leading comparable overseas markets, such as those in the United States or the European Union, when deciding which standard is appropriate for Australia.
  - This would potentially put the target at a 50% improvement in efficiency by 2025, equating to emissions of approximately 130 gCO<sub>2</sub>/km in 2020 and 95 gCO<sub>2</sub>/km in 2025.
- The Federal Government mandate Real Driving Emission testing procedures for both air pollutant (Euro 5/6) and carbon dioxide emissions.
  - This should be modelled closely from current efforts, such as those by the United Nations and the European Union.

---

<sup>1</sup> CHOICE, March 2016, *Consumer Pulse Survey*, n=1062, Q, If you were to buy a car tomorrow, how important would the fuel economy / fuel efficiency rating of different cars be, in determining which model you would purchase? Very important – 49%, somewhat important – 39%.

- The ACCC investigate any potentially misleading or deceptive claims made by manufacturers found to have real-world emissions that differ from claimed levels;
- Australia's adoption of Euro 6 air pollutant standards be brought forward to November 2016.

## Fuel efficiency standards

Fuel costs consistently rank as the second or third highest cost-of-living concern for Australian households as measured in CHOICE's nationally representative Consumer Pulse survey, behind electricity and food and groceries<sup>2</sup>. As recent trends show, fuel prices are extremely volatile, and are to a large degree dictated by international factors beyond the control of individual consumers or local retailers. This sense of powerlessness is a factor in heightening consumer concern, as it is with other essential services.

But one action that is within consumers' control is their choice of vehicle. It should not be surprising therefore that research by the Australian Bureau of Statistics<sup>3</sup> shows that fuel efficiency is a major concern for consumers who purchased a new vehicle over the past 12 months. According to the research, 'fuel economy/running costs' is considered by 45% of consumers when buying a new car, making it the second most important factor after cost (54.6%). This also makes efficiency more important than the type of vehicle (eg. car, van, 4WD etc. which is considered by 37.1 %), size (40.5%), appearance (22.7%) and safety (25.2%). It is also considerably higher than 'environmental impact/exhaust emissions' (7.2%), suggesting that consumers are more concerned with the economic rather than environmental impacts of efficiency. Nevertheless, emissions standards will affect both.

Australia is the only major advanced economy without compulsory greenhouse emissions standards<sup>4</sup>. Meanwhile other countries such as the United States, Japan and China have had mandatory standards operating for at least a decade. Research by the National Transport Commission (NTC)<sup>5</sup> notes that while consumer preferences play a key role in determining the efficiency of Australia's vehicle fleet, these preferences are influenced by government policies and regulations, and fundamentally, by the availability of fuel efficient vehicles.

The NTC has also put forward the view that different fuel efficiency standards in the EU and the US could in part be explained by the fact that consumer preferences of individual markets can have a bearing on the setting of emissions standards within that market. The NTC relies on the argument put forward by industry representatives that Australia has fallen behind the rest of the world when it comes to emissions standards because Australian consumers have an innate preference for larger, dirtier vehicles.

<sup>2</sup> CHOICE, (2015), *Consumer Pulse: Australians' attitudes to cost of living 2014-15*

<sup>3</sup> Australian Bureau of Statistics, (2012), *Environmental Issues: Waste Management, Transport and Motor Vehicle Usage, Mar 2012*

<sup>4</sup> Climate Change Authority, (2014)

<sup>5</sup> National Transport Commission, (2015)

This argument is questionable on several grounds. First, as important as efficiency is, one factor is more important for consumers - cost. It should therefore not be surprising that consumers prefer a Toyota Corolla over a fully-electric BMW model which costs over twice as much. The following table compares the price difference for the most popular versus the 'best-in-class' for carbon emissions as identified in the NTC report for selected segments.

Table One – Price difference for most popular and 'best-in-class'

Segment	Price of most popular model	Price of 'best in class'	Difference
Light	\$13,500.0	\$19,990-\$22,900.0	\$6,400- \$9,400.0
Small	\$35,448.0	\$73,663.0	\$38,215.0
Medium	\$25,500.0	\$84,153.0	\$58,653.0
Large	\$38,990.0	\$120,768.0	\$81,778.0
Upper large	\$47,500.0	\$312,707.0	\$265,207.0
People movers	\$41,968.0	Not available*	NA
Sports	\$33,968.0	\$323,870.0	\$289,902.0
SUV small	\$25,880.0	\$37,109.0	\$11,229.0
SUV medium	\$30,000.0	\$33,990.0	\$3,990.0
SUV large	\$37,000.0	\$37,411.0	\$411.0
SUV upper large	\$62,993.0	\$198,090.0	\$135,097.0

Prices for new cars retrieved 30/03/2016 from carsales.com.au.  
 \*The 'best in-class' cited in the NTC report is the diesel model, however only petrol models were available. The price of the petrol model is \$39,990 which is \$1,978 cheaper than the most popular model.

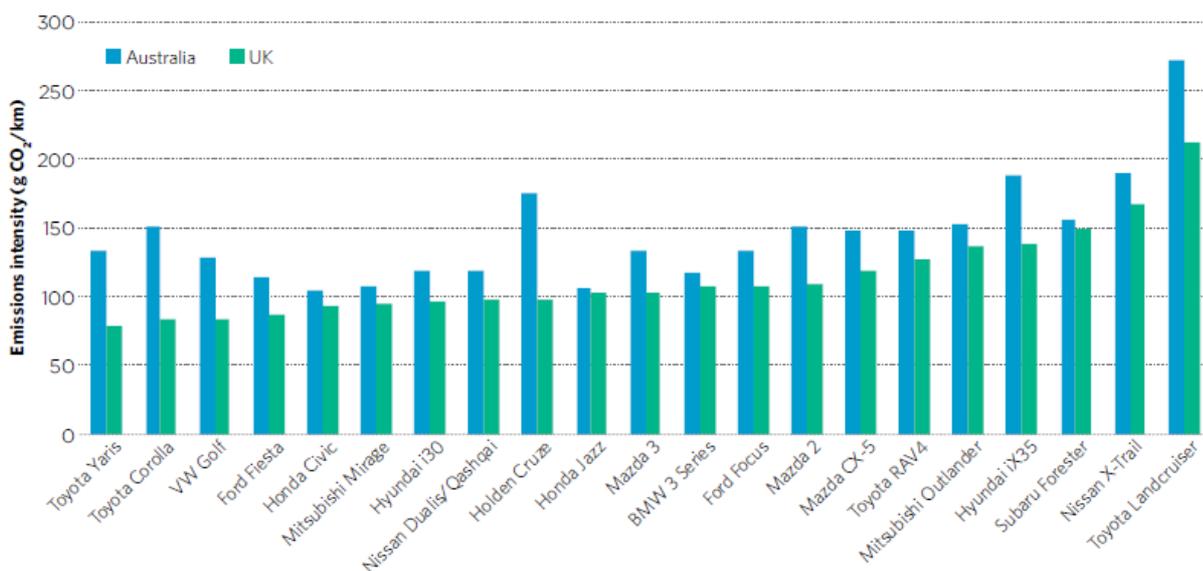
While the price difference for some segments was low or potentially negative (SUV large and people movers) overall the 'best-in-class' models were considerably more expensive in each segment. In many ways this comparison invites this result by considering the most popular, which will tend to be affordable, and the best performing, which will tend to be a premium product. However it is for precisely this same reason that the conclusion of the NTC should be approached with caution.

Of course there are interesting questions as to why, for example, Australian consumers prefer the Hyundai i20 to the more efficient and still affordable Ford Fiesta. However any analysis needs to consider price and availability. There are also other demand-side factors at play, such as the need for clear information about the efficiency of vehicles that can be confidently relied upon. There are numerous examples in which consumer preferences and consumer purchases do not align due to incomplete information. However overall it is likely that Australia's higher vehicle emissions are driven in-part by supply-side factors rather than purely by demand-side factors. Australian consumers do not have access to the most efficient vehicles, especially at lower price points.

On the supply side therefore, consumers need access to vehicles that meet the world's best standards for fuel efficiency. Models sold in Australia are less efficient even when compared to the exact same models sold in other markets. This includes some of our most popular and

best-selling products. The following graph taken from the 2014 Light Vehicle Emissions Standards for Australia Research Report prepared by the Climate Change Authority<sup>6</sup>, which compares the efficiency of Australian and UK models, clearly illustrates this. It includes 18 of Australia’s top 50 selling models of 2014<sup>7</sup>.

Graph One - Emissions intensity of best available variant of popular vehicle models, Australia and the UK 2014



Source: Climate Change Authority based on Commonwealth of Australia 2014c and Department for Transport 2014

The Climate Change Authority stressed that there “is no evidence to suggest that vehicles are de-specified or re-tuned to be less efficient for Australia. Rather, manufacturers select the vehicles from their range that they believe will sell well and maximise their profit in the Australian market, unconstrained by emissions standards that exist in other markets”. However it also notes that as Australia implements Euro 5 vehicle air pollution standards, imported vehicles will also get more fuel efficient as the markets that have adopted these pollution standards also have CO2 emissions standards.

Nevertheless, as Australia falls further behind other jurisdictions by not implementing CO2 standards we can expect to see the efficiency of Australian vehicles continue to underperform other markets, even when comparing identical models. This means Australian consumers will continue to miss out on significant financial benefits. According to ClimateWorks, “[i]f efforts in the European Union are targeted with a 4 year lag, by 2020 an average driver could pay up to \$170 per year less for fuel than they do today, and within 10

<sup>6</sup> Climate Change Authority, (2014)

<sup>7</sup> National Transport Commission, (2015)

years they would pay up to \$410 less than they pay today, even factoring in rising fuel prices”<sup>8</sup>.

CHOICE therefore recommends that Australia adopt mandatory vehicle fuel efficiency and greenhouse emission standards that are aligned with standards in comparable advanced economies, such as Europe and the United States. If we do not do so, there is a risk that our market will become a dumping ground for more inefficient, costly-to-run vehicles. As the Climate Change Authority noted in its report, over 70% of light vehicles sold in the world today are subject to mandatory vehicle emissions standards<sup>9</sup>. It is imperative that the right incentives exist to ensure that those vehicles are made available to Australian consumers.

CHOICE believes that the exact standard will need to be further investigated by the Federal Government in consultation with consumers, industry and other stakeholders. The government should also consider existing standards in other leading markets as a basis for Australian targets. According to ClimateWorks<sup>10</sup>, this would potentially put the target at a 50% improvement in efficiency by 2025, equating to emissions of approximately 130 gCO<sub>2</sub>/km in 2020, and 95 gCO<sub>2</sub>/km in 2025 - equivalent to current European standards<sup>11</sup>.

It has been suggested that Australia’s lack of mandatory vehicle fuel efficiency standards is directly related to concerns over the viability of the local motor vehicle manufacturing industry<sup>12</sup>. If that is the case, then it should no longer be a consideration given local manufacturing will soon cease.

#### Recommendations:

- Australia adopt mandatory carbon dioxide emissions standards to create the right incentives for fuel-efficient cars to be made available to Australian consumers.
- The Federal Government consider existing standards from leading comparable overseas markets, such as those in the United States or the European Union, when deciding which standard is appropriate for Australia.
  - This would potentially put the target at a 50% improvement in efficiency by 2025, equating to emissions of approximately 130 gCO<sub>2</sub>/km in 2020, and 95 gCO<sub>2</sub>/km in 2025.

---

<sup>8</sup> ClimateWorks, (2014), *Improving Australia’s Light Vehicle Fuel Efficiency*

<sup>9</sup> Climate Change Authority, (2014)

<sup>10</sup> ClimateWorks, (2014)

<sup>11</sup> ICCT, (2014), *EU CO<sub>2</sub> Emission Standards for Passenger Cars and Light-Commercial Vehicles*

<sup>12</sup> For example, see ABC 7.30, ‘VW scandal set to impact Germany but how will it affect Australians?’, 25 September 2015, available at <http://www.abc.net.au/7.30/content/2015/s4320089.htm>

## Improving Information

There are two important caveats that must be added to these recommendations. First, the Volkswagen (VW) scandal raised broader questions about the degree of self-regulation in the motor vehicle market internationally, with claims that certain tests have been manipulated and ‘gamed’ by manufacturers<sup>13</sup>. Beyond VW, CHOICE is not aware of evidence that these practices have been undertaken by manufacturers of vehicles sold in Australia. However there is evidence of a substantial and growing gap between the fuel efficiency and noxious emissions claims of manufacturers based on laboratory testing, and the performance of vehicles in the ‘real world’.

Research from Europe has shown the gap between car makers’ claims and real-world performance has grown consistently over time, and is now at 40%<sup>14</sup>. Data published by UK consumer group Which? in April 2015 showed that 98% of 200 vehicles tested over the preceding two years could not match or exceed their claimed fuel efficiency as listed on the manufacturers’ websites<sup>15</sup>. Which? concluded that the result is significantly higher running costs for consumers compared to the ‘official’ figures - a yearly average of £133 (\$284AUD), with an upper range of £459 (\$981AUD).

A subsequent analysis of the 20 ‘worst performing’ vehicles from the Which? test identified nine models sold in the Australian market, and found the average difference between Australian claims and the test performance was 37%<sup>16</sup>. These results are consistent with CHOICE’s own real-world testing of nine vehicles since September 2014, which found these cars consumed on average 25% more fuel per 100km than manufacturer’s claims<sup>17</sup>. Overall 53 of the vehicles tested by Which? are sold in the Australian market, all of which were shown to have misrepresented their fuel efficiency<sup>18</sup>. This included 10 of Australia’s 20 best-selling cars of 2014, collectively representing 45% of passenger vehicles and 22% of all vehicles sold in that year<sup>19</sup>.

<sup>13</sup> For example, see Transport and Environment, (2015), *VW’s cheating is just the tip of the iceberg*, available at <http://www.transportenvironment.org/publications/vw%E2%80%99s-cheating-just-tip-iceberg>

<sup>14</sup> See ICCT, (2015), *Real-world vehicle fuel economy gap continues to widen in Europe [press release]*, available at <http://www.theicct.org/news/real-world-vehicle-fuel-economy-gap-continues-widen-europe-press-release>

<sup>15</sup> See Which?, (2015), *False economy - 98% of cars can’t match their mpg claims*, available at <http://www.which.co.uk/news/2015/04/false-economy---98-of-cars-cant-match-their-mpg-claims-401750/>

<sup>16</sup> John Rolfe, (2015), ‘Fuel efficiency scandal: independent testing shows cars use 10% more petrol than advertised’, *The Advertiser*

<sup>17</sup> Based on CHOICE results for Mazda CX-3, Honda HR-V, Audi Q5, Mercedes GLA 250, Lexus NX200t, Volvo XC60, BMW X3, Holden Trax, and Honda Odyssey.

<sup>18</sup> CHOICE, (2015), *Car fuel efficiency labels a lot of hot air*, available at <https://www.choice.com.au/about-us/media-releases/2015/november/test-of-car-fuel-efficiency-claims>

<sup>19</sup> Calculated using National Transport Commission, (2015) and Australian Bureau of Statistics, (2016), *Sales of New Motor Vehicles, Australia*

Table Two – Claimed versus actual emissions of popular models in Australia

Tested model	Class	Year tested	Claimed mpg	Tested mpg	Discrepancy	Rank in Australia 2014
2013 Toyota Auris (1.8L Hybrid)*	Small	2013	74.3	62.8	15.5%	1
2014 Mazda 3 (2.2L Diesel)	Small	2014	68.9	61.4	10.9%	2
2014 Hyundai i30 Tourer (1.6L Diesel)	Small	2014	67.3	61.4	8.8%	3
2013 Mazda CX-5 (2.0L Petrol)	SUV	2013	47.1	44.8	4.9%	6
2013 Volkswagen Golf (1.4L Petrol)	Small	2013	53.3	51.4	3.6%	9
2013 Toyota RAV4 (2.0L Diesel)	SUV	2013	57.6	52.3	9.2%	11
2014 Hyundai ix35 (1.7L Diesel)	SUV	2014	53.3	46.3	13.1%	12
2014 Jeep Grand Cherokee (3.0L Diesel)	SUV	2014	37.7	24.4	35.3%	14
2013 Ford Focus (1.0L Petrol)	Small	2013	60.1	51.4	14.5%	17
2014 Subaru Forester (2.0L Diesel)	SUV	2014	47.9	41.5	13.4%	20

\*Called a Toyota Corolla in Australia  
SOURCE: Which? Testing data. Ranks from the NTC (2015).

Industry regularly argues that cars cannot be expected to perform in the ‘real world’ as they do in standardised laboratory tests, and that manufacturers are simply providing information through processes mandated by regulation<sup>20</sup>. There are two issues with this response. Firstly, it does not explain the significant variation between models tested and secondly, the gap has been growing over time. The Which? tests are standardised and conducted in a laboratory, albeit using more demanding cycles that are more representative of real-world driving<sup>21</sup>.

Clearly the current testing regime is failing. Therefore it is crucial that stringent regulations requiring genuine testing under real-world conditions is included in any CO2 emissions standards.

The VW scandal put a spotlight on emissions of noxious pollutants. In September and November 2015 the United States Environmental Protection Agency issued a Notice of Violation of the Clean Air Act to VW alleging that several models from 2009 to 2015 included software to circumvent EPA emissions standards for nitrogen oxides (NOx)<sup>22</sup>. Real-world tests

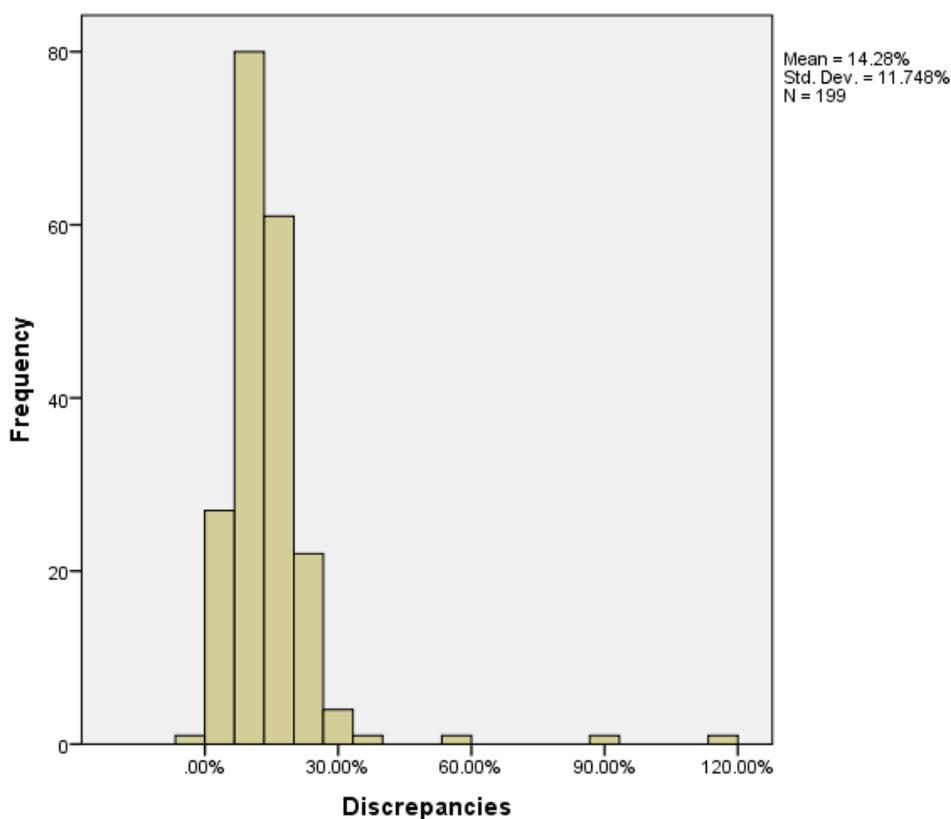
<sup>20</sup> For example, see <http://www.goauto.com.au/mellor/mellor.nsf/story2/61CE4929A9878DD5CA257ED200057098> and <http://www.fleetnews.co.uk/news/manufacture-news/2015/04/24/mitsubishi-responds-to-real-world-fuel-economy-criticism>  
<sup>21</sup> Which?, (2015), *How we test – how we test cars*, available at <http://www.which.co.uk/cars/choosing-a-car/how-we-test-cars/how-we-test-mpg/>

<sup>22</sup> Environmental Protection Agency, (2016), *Volkswagen Light Duty Diesel Vehicle Violations for Model Years 2009-2016*, available at <https://www.epa.gov/vw>

by the ICCT from 2013-2014 showed that NOx emissions from the VW Jetta exceeded the US-EPA Tier2-Bin5 standard by 15 to 35 times, while the VW Passat’s NOx emissions were 5 to 20 times the standard<sup>23</sup>. Therefore stringent real-world testing for noxious emissions should be mandated immediately to ensure that Australia’s existing standards are being met.

Second, it is absurd for Australian consumers to be provided with comparative information on vehicle fuel efficiency that bears no resemblance to how the vehicles consume fuel in the real world. While some industry responses appear to suggest consumers should be satisfied with inaccurate information, provided it is consistently inaccurate and therefore representative of relative differences between vehicles, even this is clearly not the case. The Which? real-world testing showed significant inconsistencies in the discrepancies - as shown by the histogram in Graph Two. Table Three above, for example, shows differences as small as 3.6% and as large as 35.3%.

Graph Two – Histogram of Which? data.



<sup>23</sup> ICCT, (2015), EPA's notice of violation of the Clean Air Act to Volkswagen [press statement], available at <http://www.theicct.org/news/epas-notice-violation-clean-air-act-volkswagen-press-statement>

There is therefore an argument for Federal Government intervention and for manufacturers to take responsibility for the accuracy of the information they provide consumers about their vehicles.

There is movement across jurisdictions to improve testing procedures for both greenhouse emissions and air pollutant emissions. The United Nations is currently adopting a new test procedure for measuring greenhouse emissions from passenger cars and light commercial vans in the laboratory, the Worldwide Harmonized Light Vehicles Test Procedure (WLTP)<sup>24</sup>. As well as harmonising standards across jurisdictions, this will define test procedures that are more realistic and representative of real-world driving conditions. Meanwhile, the European Commission has approved a new Real Driving Emission (RDE) testing procedure for air pollutant emissions that will be implemented from January 2016<sup>25</sup>. This will test the air pollutant emissions of cars driven outside on real roads, replacing current laboratory-based testing of the type that was manipulated through VW's 'defeat device' (the subject of the EPA's notice of violation).

While better test procedures are critical, there is also a need for greater assurance around the rigour and independence of the testing process. CHOICE supports calls from Australia's peak motoring body, the Australian Automobile Association, for a process to ensure motor vehicles imported into Australia comply with standards - beyond simply assurances from manufacturers<sup>26</sup>. Whether this is a fully independent testing regime or enhanced independent auditing of vehicles imported into Australia, it is critical that car manufacturers are made accountable for claims made regarding vehicle fuel efficiency and environmental performance.

#### Recommendations

- The Australian government mandate Real Driving Emission testing procedures for both air pollutant (Euro 5/6) and carbon dioxide emissions. This should be modelled closely off of current efforts, such those by the United Nations and the European Union.
- The ACCC investigate any potentially misleading or deceptive claims made by manufactures found to have real-world emissions that differ from claimed levels.

<sup>24</sup> United Nations Economic Commission for Europe, (2012), *Worldwide harmonized Light vehicles Test Procedure (WLTP)*, available at <https://www2.unece.org/wiki/pages/viewpage.action?pageId=2523179>

<sup>25</sup> European Commission (2015), *FAQ - Air pollutant emissions standards*, available at [http://europa.eu/rapid/press-release\\_MEMO-15-5705\\_en.htm](http://europa.eu/rapid/press-release_MEMO-15-5705_en.htm)

<sup>26</sup> Australian Automobile Association (7 December 2015), media release, *Motoring peak body to test Australian vehicle emissions*, available at <http://www.aaa.asn.au/news-and-publications/news/article/?id=motoring-peak-body-to-test-australian-vehicle-emissions>

## Implementation of Euro 6/VI Noxious Emissions Standards for Light and Heavy Vehicles

Between 2010 and 2015 the amount of registered passenger vehicles in Australia increased by 10.4% to just over 13.5 million. The amount of registered vehicles of all kinds grew by 12.1% to approximately 18 million over the same period. This represented a relative as well as absolute growth in registered vehicles with the amount per 1000 residents growing from 559 to 575 for passenger vehicles and from 731 to 764 for all vehicles<sup>27</sup>. Due to the attrition rate, estimated to be 4% per year<sup>28</sup>, the average age of registered vehicles remained stable at approximately 10 years<sup>29</sup>.

Because a 10 year old car today is more likely to be fuel efficient than a 10 year old car in 2010, the retirement of older vehicles is putting downward pressure on the emissions of pollutants and greenhouse gases. However in some cases this is negated by the growth in the number of cars on the road. This is evident in the case of carbon dioxide emissions from passenger vehicles which has remained stable since 2005<sup>30</sup>. The story is mixed for noxious emissions.

Table Three – Emissions of noxious pollutants by motor vehicles (kg)

	Carbon monoxide	Oxides of Nitrogen	Particulate Matter (10.0 um)
<b>2009/10</b>	730,000,000	770,000,000	530,000,000
<b>2013/14</b>	660,000,000	750,000,000	920,000,000

SOURCE: National Pollutant Inventory.

As Table One shows, there has been a marked decline in carbon monoxide emissions, a marked increase in particulate matter emissions, and a slight decrease in nitrogen oxide emissions. The upshot is that the improving standards of recent vehicles with regard to both carbon dioxide and noxious emissions cannot be relied upon to arrest the growth of either due to the offsetting effects of absolute growth in Australia’s fleet. According to estimates by the

<sup>27</sup> Australian Bureau of Statistics, (2015), *Survey of Motor Vehicle Use, Australia, 12 months ended 31 October 2014*

<sup>28</sup> Climate Change Authority, (2014), *Light Vehicle Emissions Standards for Australia Research Report*

<sup>29</sup> Australian Bureau of Statistics, (2015), *Survey of Motor Vehicle Use, Australia, 12 months ended 31 October 2014*

<sup>30</sup> National Transport Commission, (2015), *Carbon Dioxide Emissions Intensity for New Australian Light Vehicles 2014*

International Council on Clean Transportation (ICCT) Australia’s vehicle-km travelled will increase by an annual rate of 1.1% between 2010 and 2030 - equal to that of India<sup>31</sup>.

This overall increase in noxious emissions is consequential. According to a report by the Royal College of Physicians in the UK<sup>32</sup> air pollution plays a role in many public health challenges, being linked to cancer, asthma, stroke and heart disease, diabetes, obesity, and changes linked to dementia. Even World Health Organization (WHO) guidelines for emissions, which are based solely on health concerns, are not totally protective and do not define levels of exposure that are entirely safe for the whole population. Furthermore, the development of heart, brain, hormone systems and immunity in infancy and early childhood, and indeed during pregnancy itself, can all be harmed by air pollution. Therefore the approach to noxious emissions needs to take a long term view.

It is clear that the absolute growth in Australia’s fleet requires gradual tightening of emissions regulations. Australia’s current air pollutant standards are Euro 4, with the Euro 5 standards applying from November 1, 2016 and the Euro 6 standards taking effect from April/July 2017 and April/July 2018 for all models<sup>33</sup>. By contrast the Euro 6 standards have applied in the European Union and South Korea from 2015. The United States implemented Euro 6-equivalent standards (Tier 2 bin 8) in 2008, and Japan implemented Euro 6-equivalent standards (Post New Long-Term) in 2009<sup>34</sup>. Australia’s implementation is thus running behind other jurisdictions in the ‘Best Practice’ group identified by the ICCT, as the table below illustrates

Table Four – Year emissions standards were fully implemented by jurisdiction

	Euro 4	Euro 5	Euro 6
<b>United States/Canada</b>	1995	2004	2008
<b>Europe</b>	2005	2010	2015
<b>Japan</b>	2005		2009
<b>South Korea</b>	2006	2011	2015
<b>Australia</b>	2007	2013	2018

The *Final Regulation Impact Statement for Review of Euro 5/6 Light Vehicle Emissions Standards*, written by the Department of Infrastructure and Transport in 2010, said the following when recommending this timeline:

<sup>31</sup> The International Council on Clean Transportation, (2013), *The Impact of Stringent Fuel and Vehicle Standards on Premature Mortality and Emissions*

<sup>32</sup> Royal College of Physicians, (2016), *Every breath we take: the lifelong impact of air pollution*

<sup>33</sup> Department of Infrastructure and Transport, (2010), *Final Regulation Impact Statement for Review of Euro 5/6 Light Vehicle Emissions Standards*

<sup>34</sup> ICCT, (2013)

“Of the two remaining base case options which include petrol and gas fuelled vehicles and which were subject to the BCA, the draft RIS recommended Option 3 over Option 2 as it provided a more realistic timeframe for industry compliance. In the public comment phase, the vehicle industry raised further concerns about the timing issue, and as a consequence, additional sensitivity analyses on Option 3 were undertaken on delayed timeframes. Those analyses indicate that the a further 1-2 year delay proposed under the “Modified Option 3” (see Section 4.5) reduces the net benefits by around 36% over the 17 year analysis period. Despite this reduction in net benefits, this scenario could be supported as an alternative to the original Option 3 in the draft RIS as it would assist industry in achieving compliance at reduced cost by providing additional time to prepare for the new standards and a longer time to amortise investment costs for existing vehicles”<sup>35</sup>.

Option 2 was to introduce Euro 5 from 2012 and Euro 6 from 2015. Option 3 included a 1 year delay for petrol and LPG vehicles for compliance with Euro 5 with Euro 6 still beginning its implementation from 2015. In other words the regulatory impact statement’s (RIS) preferred option, initially, was that Euro 6 begin its implementation from 2015. However the current arrangement, recommended by the RIS in its final report as “Modified Option 3”, was proposed instead - despite reducing the net benefits by around 36% over the 17 year analysis period.

The question of net benefits included in the discussion paper have thus already been extensively addressed by the Department of Infrastructure and Transport. Their results indicated that the best net benefits would have been secured by implementing Euro 6 from 2015. Their reason for not recommending this timeline was to “assist industry in achieving compliance at reduced cost”. CHOICE believes that the industry should be able to meet the Euro 6 standards and does not need this extended implementation period. For this reason we recommend that Euro 6 be implemented for new models from November 2016.

CHOICE notes that as of 2013 approximately 90% of vehicles sold in Australia were imported. In terms of dollar value almost 60% of these came from the European Union, South Korea or Japan, with a further 14% originating from NAFTA countries, which includes two Euro-6 equivalent countries (the US and Canada) and one non-Euro 6 country (Mexico)<sup>36</sup>. Consequently, assuming that the market share of imports by country has not changed significantly since 2013, most vehicles sold in Australia originated from Euro-6 or equivalent jurisdictions. Meanwhile most of Australia’s domestic car manufacturing will cease by 2017, meaning that imports will account for almost all vehicles sold in the country. Considering these manufacturers are already meeting the Euro 6 or equivalent standards for their home markets (and indeed major foreign markets between them), they should be able to meet these standards in Australia also.

---

<sup>35</sup> Department of Infrastructure and Transport, (2010)

<sup>36</sup> Department of Industry, Innovation and Science, (2014), *Automotive Industry Data Card*

Recommendation:

- Australia's adoption of Euro 6 air pollutant standards be brought forward to November 2016.