
*FCAI Response to the
Independent Review of
the Fuel Quality
Standards Act 2000
Issues Paper*



Federal Chamber of Automotive Industries
Level 1, 59 Wentworth Avenue
KINGSTON ACT 2604
Phone: +61 2 6229 8217
Facsimile: +61 2 6248 7673

Contacts:
Mr James Hurnall, Technical Director
(24 July 15)

1.0 INTRODUCTION

The Federal Chamber of Automotive Industries (FCAI) welcomes the opportunity to respond to the Federal Government's *Independent Review of the Fuel Quality Standards Act 2000 Issues Paper*¹. The FCAI is the peak industry organisation representing the manufacturers and importers of cars, SUVs, light commercial vehicles and motorcycles in Australia.

The Issues Paper provides an overview of the Review's terms of reference. The main section of the terms of reference that is of interest to the FCAI and member brands is:

*"the interrelationship between fuel quality, vehicle emission standards and other standards, government policies and initiatives, e.g. automotive design and technology ..."*²

The FCAI and member companies' long standing position is that fuel quality standards, greenhouse gas (GHG) emission targets (i.e. CO₂ standards or targets) and vehicle pollutant emission standards all need to be considered together, as they are all interrelated. This position is shared by the global automotive industry, regulators and research organisations.

The FCAI notes that this view is supported in the Issues Paper:

*"... vehicles and fuel work together to reduce vehicle emissions that impact on air quality. Without fuel of appropriate quality, vehicle emissions reduction systems will not be as effective. Likewise, without appropriate vehicle technologies, improving fuel quality will not be as effective in reducing vehicle emission as it would otherwise be."*³

The FCAI has recently responded to both the Government's public consultation on a "National Clean Air Agreement" and "Setting Australia's post-2020 target for greenhouse gas emissions". The FCAI and our member brands support improved air quality for citizens and fuel efficiency of motor vehicles. This should be done through the consistent application of measures at technological, behavioral and regulatory levels.

The FCAI and member companies consider that a whole of Government approach is required that incorporates all associated issues, including fuel quality standards, which have a significant impact on vehicles' ability to meet both CO₂ targets and air pollution emission standards. The Fuel Quality Standards Act is an important component of the whole of Government approach.

¹ Marsden Jacob Associates and Pacific Environment, "Independent Review of the Fuel Quality Standards Act 2000" Issues Paper, June 2015

² *ibid*, p.3

³ *ibid*, p.3

2.0 INTER-RELATIONSHIP OF POLLUTANT EMISSIONS, CO₂ AND FUEL QUALITY

2.1 FCAI Position

The FCAI's longstanding position is that vehicle pollutant emission standards (i.e. ADR 79/0x or Euro 5/6), GHG emission standards (i.e. CO₂ standards or targets) 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.

To fully deliver the expected air quality benefits (i.e. reduction in pollutant emissions) from the introduction of advanced vehicle pollutant emission standards (e.g. Euro 5 as ADR 79/04), market fuel of the relevant quality standard (i.e. consistent with the certification fuel quality standard) must be available. If appropriate market fuel quality is not available, higher exhaust emissions (both CO₂ and pollutants) will be generated during a vehicle's operation with lower than expected improvements to air quality and health benefits.

Vehicles are designed and developed to meet air pollutant emission standards (and CO₂ targets) with an expectation of fuel quality in a particular market. While air pollution emission standards (Euro 5 as ADR 79/04) have been introduced into Australian legislation, the Government has not mandated the concomitant fuel quality standards (95 RON 10 ppm sulphur petrol).

The FCAI and member companies consider that 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 air pollution emission standards. Otherwise, Australians will not receive the full benefit of the additional cost for improved emission technology in new cars.

2.2 Light motor vehicle pollutant emissions

Through the Australian Design Rules, the Government has introduced successively more stringent air quality standards (pollutant emission standards) for vehicles. New light vehicles (passenger cars, SUVs and light commercial vehicles) introduced into Australia need to meet the Euro 5 standards as ADR 79/03 introduced from 1 November 2013 and ADR 79/04 introduced from 1 November 2016.⁴

The progressive tightening of vehicle emissions standards, especially since 2003 as Australia has progressed from Euro 2, through Euro 3 to Euro 4 and now Euro 5 standards, has contributed to improvements in air quality in Australian cities. For example, a 2013 study by the CSIRO for the Victorian EPA found that by 2030, total motor vehicle exhaust emissions will have significantly reduced and that improved technology is entering the vehicle fleet at a faster rate than growth of vehicle use⁵.

The successful introduction of the next step in light vehicle pollutant emission standards, Euro 6, is dependent on suitable market fuel quality standards, i.e. 95 RON, 10 ppm sulphur petrol.

2.3 Light motor vehicle CO₂ emissions

New light vehicles⁶ have provided a year-on-year reduction in CO₂ (or fuel consumption) as demonstrated by the National Road Transport Commission's (NTC) annual update⁷.

⁴ DIRD Vehicle Emission Standards, www.infrastructure.gov.au [accessed 3 March 2015]

⁵ EPA Victoria, Future air quality in Victoria-Final Report, Publication 1535 July 2013

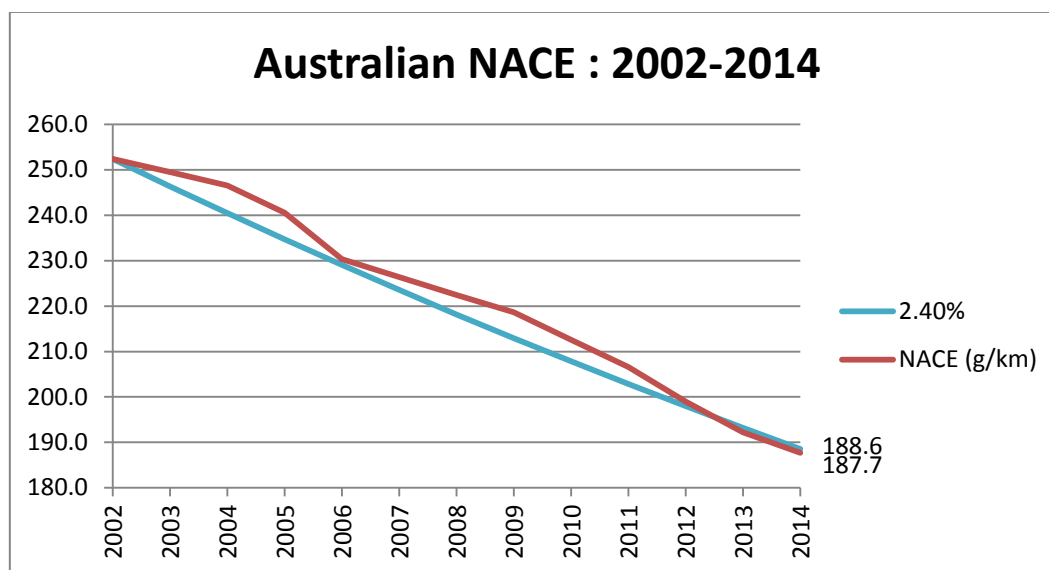
⁶ Light vehicles in this submission refers to passenger cars, sport utility vehicles (SUVs) and light commercial vehicles up to 3.5 tonne GVM (LCVs)

⁷ NTC Australia, Carbon Dioxide Emissions from New Australian Vehicles 2013, Information Paper, May 2014

All new passenger cars, SUVs and light commercial utilities, vans and buses (up to 3.5 tonnes) are included in calculating the National Average Carbon Emissions (NACE) figure. The Australian NACE is a broader measure than in most other advanced markets (including the US and Europe) as it includes many more vehicle types than CO₂ measures used in other markets. As such, face value comparisons of CO₂ data from other markets will be misleading unless appropriate adjustments are made. (See Appendix C for international comparison based on annual percentage reduction.)

The NACE for all new light vehicles (including passenger cars, SUVs and light commercial vehicles) sold in Australia for each calendar year from 2002 to 2014 (Figure 2.1) reduced from 252.4 gCO₂/km to 187.7 gCO₂/km. This is an overall reduction of 25.6 per cent with an average annual reduction of 2.4 per cent.

Figure 2.1 – NACE 2002-2014



The FCAI expects that this trend will continue and by 2020 the NACE of new light vehicles delivered to the market in Australia will reduce by another 13 per cent. By 2030, a 50 per cent improvement over 2002 levels will have been achieved.

This is in excess of the Government’s economy-wide target of a 5 per cent reduction on 2000 levels by 2020⁸ and also the Department of the Environment’s expectation that light vehicle CO₂ emissions will fall by more than 25 per cent from 2012–14 to 2034–35.⁹

The FCAI’s expectation that the annual reduction will continue at this rate assumes that the current market and operating environment will continue to change as has happened in the past 10 years, i.e. changes in both consumer preference and the introduction of new technology. As the Australian new vehicle market is one of the most competitive in the world, with over 50 brands offering more than 400 light vehicle models, it is expected that the trend of an annual reduction in CO₂ will continue as brands continue to introduce state of the art fuel efficient vehicles.

However, the choice of engine technology that can be introduced into Australia is limited by the national fuel quality standards and the resulting available market fuel (especially ULP; 91 RON and 150 ppm sulphur).

⁸ Australian Government, Department of the Prime Minister and Cabinet, “Setting Australia’s post-2020 target for greenhouse gas emissions”, Issues Paper, March 2015

⁹ Commonwealth of Australia (Department of Environment) 2015, Australia’s emissions projections 2014-15, pp. 19-20.

The average new light vehicle sold in Australia is now at least 25 per cent more efficient than it was in 2000. The annual 2.4 per cent improvements in the NACE demonstrates the industry's commitment to a marking strong contribution to national efforts to reduce the impact of global climate change through continuing to improve fuel efficiency and reduce carbon dioxide emissions from new vehicles.

Emerging vehicle technologies such as hydrogen and electric vehicles present an opportunity for achievement of further vehicle efficiencies. As per other markets, such as Japan, where Government led consumer incentives and infrastructure investment have promoted the uptake of these vehicles, the Australian Government should consider what role it intends to play in this space.

2.4 Fuel quality standards

Vehicles are designed and developed to meet air pollutant emission standards and/or CO₂ targets with an expectation of fuel quality in a particular market. While air quality (or vehicle pollution emission) standards have been introduced into Australian legislation (ADR 79/05), the Government has not mandated the concomitant fuel quality standards (95RON 10 ppm sulphur petrol). Improving the quality of fuel available in Australia will deliver improvements for the entire motor vehicle fleet, not just new motor vehicles.

The Australian transport fuel standards are lower than other major markets, especially the EU, Japan and the USA. A report prepared for the Australian Government in 2014 by Hart Energy, *International Fuel Quality Standards and Their Implications for Australian Standards*¹⁰, demonstrates where Australian fuel quality standards are behind international levels and provides a series of recommendations where Australian fuel quality specifications need to be reviewed and upgraded in line with international standards.

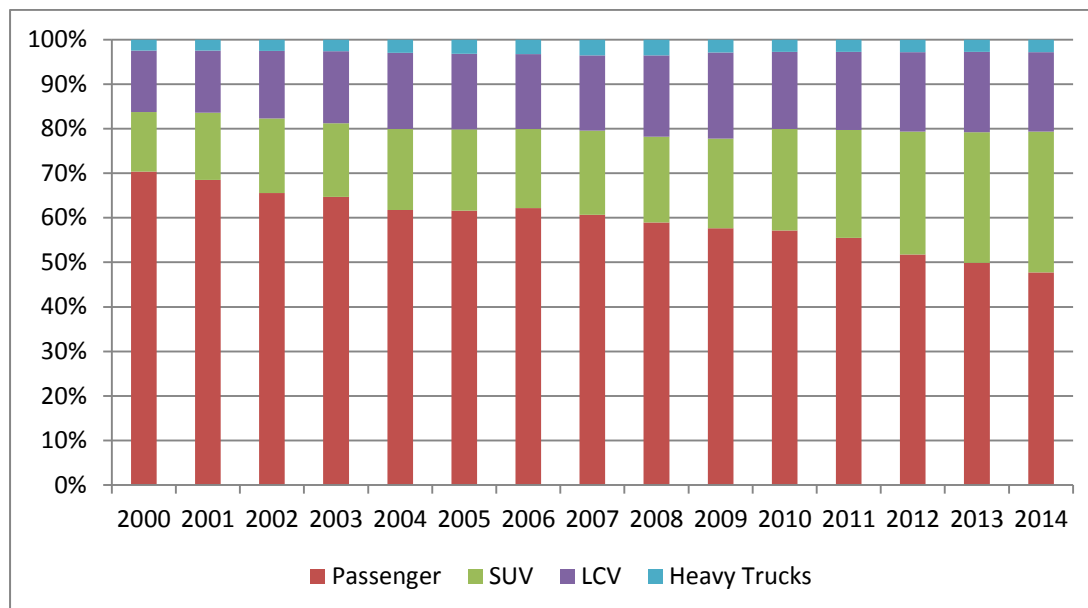
The lack of appropriate market fuel quality restricts the introduction of some engine variants by some brands and it also inhibits the performance of the latest generation of engines (i.e. Euro 6 compliant), particularly due to higher sulphur concentration in petrol. Additionally, poor fuel quality can lead to increased operating and maintenance costs for consumers. For example, poor fuel can lead to increased fuel consumption from the engine needing to run rich more often to increase the exhaust gas temperature to de-sulphurise the catalyst. More frequent de-sulphurisation cycles will also reduce the service life of the catalyst leading to the need for more frequent replacement.

To make further CO₂ improvements (more closely aligned to Europe), vehicles increasingly need access to lower sulphur content fuels to bring certain engine technologies to market—equivalent to those already available overseas. Maintaining multiple fuels (E10, E85, ULP & PULP, LPG, diesel, etc.) across all states (and metro/rural) creates additional complexity and costs to fuel suppliers that will be passed onto the consumer.

The consumer preferences in the new Australian light vehicle market have changed significantly from 2000 to 2014 (see figure 2.2). This includes significant growth in the SUV segment, a large proportion of which are diesel vehicles.

¹⁰ Hart Energy Research and Consulting, October 2014, *International Fuel Quality Standards and Their Implications for Australian Standards*, Final Report

Figure 2.2 – Australian New Vehicle Market; 2000-2014



Over the five year period from 2009 to 2013, there was a significant change in the number of diesel engine passenger vehicles (cars and SUVs) and light commercial vehicles (LCVs) registered, increasing by 103.6 per cent and 65.4 per cent, respectively. Diesel engine passenger vehicles comprise (approx.) 7 per cent of all registered light vehicles, while diesel engine light commercials make up (approx.) 17.5 per cent of all registered light vehicles.¹²

This growth in the particulate intensive diesel segment has implications for air quality. Any policy addressing petrol emissions needs to also reflect changes in preferences for diesel vehicles.

With the growth in imports of Australia’s automotive fuel (from 7% to 36% over 2000 to 2013),¹³ the decline of local refining and the introduction of international vehicle emission standards, Australia needs to move towards international harmonisation of fuel quality standards. This will become critical from 2018 as vehicle brands will import vehicles with engines that are designed to achieve the latest pollutant emission levels.

If Australia does not align to higher world fuel quality standards, Australia will be at risk that future vehicle models will shift Australia's vehicle fleet towards lower grade offerings. This potentially degrades Australia's progress towards more technologically advanced and efficient vehicles.

¹¹ FCAI, VFACTS National Report, New Vehicle Sales, December 2000 to 2014

¹² Australian Bureau of Statistics, 9309.0 Motor Vehicle Census, Australia, 31 Jan 2014. <http://www.abs.gov.au/ausstats/abs%40.nsf/mf/9309.0> [accessed 17 April 2015]

¹³ Review of the Fuel Quality Standards Act 2000, Issues Paper, p. 8 Table 2: Australia: Population, vehicle and fuel statistics in 2000 and 2013.

3.0 RESPONSES TO ISSUES PAPER QUESTIONS

This section will directly respond to the questions in the Issues paper taking into context the FCAI position on the inter-relationship of Fuel quality standards, vehicle pollutant emission standards and CO₂ standards outlined in Section 2.0.

3.1 Focus and scope of the review

The Issues Paper asks;

- *What does future success on fuel quality look like?*
- *Given this, are the current objectives of the Act appropriate?*
- *Do the Act's provision and administrative arrangements enable the most effective alignment with the Motor Vehicle Standards Act 1989?*
- *What are the key emerging opportunities and challenges to achieving desired objectives?*

The FCAI and member companies' long standing position is that fuel quality standards, GHG emission targets (i.e. CO₂ standards or targets) and pollutant emission standards all need to be considered together, as they are all interrelated. This position it is shared by the global automotive industry, regulators and research organisations. Background to this position is included in Appendix B.

Given this position the FCAI considers that "future success on fuel quality" is fuel available in the market that meets a fuel quality standard that delivers not only the vehicle operability requirements, but also the government expectations for reduced vehicle pollutant emissions and CO₂ emissions.

This is consistent with the current objective of the Act:¹⁴

- (a) *regulate the quality of fuel supplied in Australia in order to:*
- (i) *reduce the level of pollutants and emissions arising from the use of fuel that may cause environmental and health problems; and*
 - (ii) *facilitate the adopting of better engine and emission control technology; and*
 - (iii) *allow the effective operation of engines;*

And also consistent with the policy objectives of the legislation (as noted in the Issues Paper):¹⁵

- "... to reduce the adverse effects of motor vehicle emissions on urban air quality, human health, and enhanced greenhouse effect"*
- "the harmonisation of Australian vehicle emission standards with international standards"*
- "the national availability of petrol and diesel of appropriate quality to allow the effective adoption of new vehicle engine and emission control technologies."*

While the objectives of the Act and also the policy objectives for the Act being introduced, were to promote alignment with the vehicle emission standards introduced under the Motor Vehicle Standards Act, in practice the administrative arrangements do not enable the most effective alignment. For example, the vehicle pollutant emission standards were updated in 2011 with the introduction of ADR 79/05 (i.e. Euro 5) from 2013; however, the corresponding fuel quality standard (95RON 10 ppm sulphur) was not introduced.

The current administrative arrangements for development of fuel quality standards concentrate on the operability of vehicles (only one of the objectives of the Act) rather than aiming to match the

¹⁴ Fuel Quality Standards Act 2000, Part 1, Section 3 Objects of Act, 2014 compilation

¹⁵ Fuel Quality Standards Act 2000, Explanatory Memorandum, in Marsden Jacob Associates and Pacific Environment, "Independent Review of the Fuel Quality Standards Act 2000" Issues Paper, June 2015

market fuel quality standard to vehicle emission standard and deliver the governments expected environmental and health benefits (i.e. remaining parts of the first objective of the Act).

FCAI member brands must deliver vehicles that are able to operate effectively on the market fuel, which is normally of lower quality than the certification standard. While the vehicle will operate, the reduction in vehicle emissions (both pollutant and GHG emissions) will be less than optimal, as noted in the Issues Paper:

“Without fuel of appropriate quality, vehicle emissions reduction systems will not be as effective. Likewise, without appropriate vehicle technologies, improving fuel quality will not be as effective in reducing vehicle emission as it would otherwise be.”¹⁶

Two key emerging challenges for fuel quality standards are their contribution to meeting the Government’s objectives under both a National Clean Air Agreement¹⁷ and Australia’s post-2020 GHG emission targets.¹⁸ As the FCAI has contributed to the public consultation phases of both of these reviews, we are aware that the Government is considering how the vehicle industry will contribute to improved air quality, reduced health impacts and reduced GHG emissions from vehicle use.

If the government wants to deliver real-world reductions in both vehicle pollutant emissions and GHG (CO₂) emissions from motor vehicles the market fuel quality will need to match the certification test fuel quality standard. Otherwise the government will impose additional cost on new car owners (through imposition of more stringent standards that require advance and costly technology), without delivering the expected community benefits.

For example, the additional cost of supplying a Euro 6 compliant vehicle over a Euro 5 compliant vehicle ranges from \$300 to \$800 per vehicle, depending on vehicle type and engine. Using 2014¹⁹ sales figures with an (approx.) 70/30 split between petrol and diesel engine light vehicles, the introduction of Euro 6 would equate to an annual cost of (approx.) \$495 million. Without Euro 6 compliant fuel (95 RON 10 ppm sulphur) available in the market, the Government’s expected environment and health benefit for this additional cost will not be delivered.

¹⁶ *ibid*, p.3

¹⁷ Australian Government, Department of the Environment, “Working towards a National Clean Air Agreement”, Discussion Paper, March 2015

¹⁸ Australian Government, Department of the Prime Minister and Cabinet, “Setting Australia’s post-2020 target for greenhouse gas emissions”, Issues Paper, March 2015

¹⁹ FCAI, Vfacts National Report, New Vehicle Sales, December 2014

3.2 Why is the review being undertaken?

The Issues Paper asks:

- *What are the key emerging domestic opportunities and challenges in relation to fuel quality?*
- *What are the key emerging international opportunities and challenges in relation to fuel quality? Given the objectives of the Act, and emerging opportunities and challenges for the Act, what are the strengths and weaknesses of the current Act and regulatory structure?*
- *What has been achieved through the Act? What have been its costs and benefits?*
- *How could the Act be improved to reduce regulatory burden?*
- *How could the Act be improved in other ways?*
- *Are fuel quality standards still needed? if yes:*
 - *To what extent are fuel quality information standards required?*
 - *Are there opportunities for international harmonisation of fuel quality standards? Is this likely to increase the stringency of the standards?*
 - *Are standards needed for other fuels?*

The FCAI sees two key challenges in relation to fuel quality standards in Australia:

- From the end of 2017 the light vehicle industry will have completed its transition from domestic manufacturing to a fully imported industry.
- The Federal Government is harmonising Australia's vehicle regulations, the Australian Design Rules (ADRs) with the international vehicle regulatory standards, the United Nations Regulations (UN Regulations).
 - One of the considerations of the current review of the Motor Vehicle Standards Act²⁰ is to determine if complete harmonisation of the ADRs with the UN Regulations can be achieved.

These two key challenges for Australia's fuel quality standards coincide with an increasingly global automotive industry, where vehicle manufacturers design and develop vehicle platforms for sale throughout the world. Small changes are then made to engine, emission and fuel systems to cater for local market differences.

Australia has adopted the UN Regulations for vehicle pollutant emission standards. For example the emission regulations for new petrol passenger cars since 2003 are:

- UN Regulation 83/04 (Euro 2) introduced as ADR 79/00 in 2003.
- UN Regulation 83/05 (Euro 3) introduced as ADR 79/01 in 2005.
- UN Regulation 83/05 (Euro 4) introduced as ADR 79/02 in 2008.
- UN Regulation 83/06 (Euro 5) introduced as ADR 79/03 in 2013 and ADR 79/04 in 2016.

Introduction of the UN Regulations has substantially tightened the regulatory vehicle pollutant limits over this period of time (see Appendix D for summary of all limits introduced with the 'Euro' pollutant emission standards). For example;

- Limit values for mass of carbon monoxide (CO) have decreased by;
 - 54% for petrol engine passenger cars and SUVs and
 - 50% for diesel engine passenger cars, SUVs and light commercial vehicles.
- Limit values for mass of oxides of nitrogen (NOx) have decreased by;
 - 60% for petrol engine passenger cars and SUVs and
 - 84% for diesel engine passenger cars, SUVs and light commercial vehicles.

²⁰ Review of the Motor Vehicle Standards Act 1989, https://infrastructure.gov.au/vehicles/mv_standards_act/index.aspx [accessed 3 July 2015]

- Limit values for mass of particulates (PM) have decreased by 90% for diesel engine passenger cars, SUVs and light commercial vehicles.

The resulting significant improvements in reduced pollutant emissions, and also reduced CO₂ emissions, over this period of time was recently highlighted in an open letter from leading representatives of the automotive industry and petroleum refining industry in Europe to EU policy makers. A copy of the letter is included in Appendix E. The letter points out that by industry and policy makers working cooperatively with the necessary policy framework that encourages the rapid adoption of the latest low-emission technology (taking into consideration the necessary industry lead-times) will result in improved air quality in real driving conditions as well as continuing to reduce CO₂ emissions.

To continue to have access to state of the art (in terms of both safety and environmental performance) new light vehicles, Australia's vehicle regulations and corresponding fuel quality standards need to be harmonised with the appropriate international standards.

The Hart Energy 2014 report *International Fuel Quality Standards and Their Implications for Australian Standards*²¹, prepared for the Australian Government, demonstrates where Australian fuel quality standards are behind international levels and provides a series of recommendations where Australian fuel quality specifications need to be reviewed and upgraded in line with international standards.

The Issues paper highlights the significant growth in diesel fuel usage in Australia. Over the period from 2000 to 2013 there has been almost a doubling of diesel fuel used and it now comprises 55 per cent of fuel used compared with 45 per cent for petrol. This is significantly larger than the 6 per cent increase in petrol use or increase in numbers of vehicles (34% for light vehicle and 31% for heavy vehicles) over this same period.²²

According to the Australian Bureau of Statistics (ABS), while the number of diesel engine vehicles has increased since 2009, diesel powered vehicles still only comprise 18.5 per cent of the registered vehicle fleet. This is a small increase of (approx.) 13 per cent for all vehicles and (approx.) 14 per cent for heavy vehicles, from 2009. Therefore, on-road use cannot account for the doubling of diesel use in Australia between 2000 and 2013.

Accordingly, harmonisation with international fuel quality standards should also include a standard for diesel used in off-road applications.

To summarise, the FCAI considers that:

- National fuel quality standards are still required to deliver on the vehicle operability and environmental performance.
- There is an opportunity to more closely harmonise with international fuel quality standards.

²¹ Hart Energy Research and Consulting, October 2014, *International Fuel Quality Standards and their Implications for Australian Standards*, Final Report.

²² Review of the Fuel Quality Standards Act 2000, Issues Paper, p. 8 Table 2: Australia: Population, vehicle and fuel statistics in 2000 and 2013.

3.3 Review methodology and options under consideration

The Issues Paper asks;

- *Should other regulatory structures (options) be considered? If so, which one(s)?*
- *What are the strengths and weaknesses of alternative regulatory structures?*
- *What are the costs and benefits of alternative regulatory structures?*
- *How will different stakeholders be impacted by alternative structures?*
- *What can be learnt from other jurisdictions about the desirability of alternative structures?*

As outlined above, vehicles are designed and developed to meet CO₂ targets and/or air pollutant emission standards with an expectation of fuel quality in a particular market. The corresponding market fuel quality is required for optimal vehicle operation and also to meet the Government's environmental (both air quality and GHG reductions) and health expectations.

To be able to comment effectively on the various regulatory options outlined in the Issues Paper additional information on each of the alternatives would be required.

The FCAI is of the view that the most effective method to achieve nationally consistent fuel quality standards is through a national regulatory standard.

The main outcomes required by the FCAI from this part of the review are;

- Nationally consistent fuel quality standards that are aligned with the vehicle pollutant and CO₂ emission standards and consequently achieve the government's health and environmental objectives.
- Sufficient consumer protection and enforcement provisions that will ensure the government are able to take action against operators who supply 'off-spec' fuel (i.e. fuel that is outside the national fuel quality standard) that will adversely affect the operation of a consumers vehicle.

The Issues Paper asks;

- *Do you have any suggestions regarding the approach to the emissions and air quality modelling?*
- *Do you have any suggestions regarding the health risk assessment?*

To evaluate the change in emissions, ambient air quality and health benefits the FCAI considers that the modelling must include;

- Results of vehicle emissions (both pollutants and GHG) operating on market fuel in addition to results from certification tests to determine the gap (if any) in emissions from the certification tests and in-service performance. This will then allow an objective assessment of benefits of improved vehicle emission standards and/or fuel quality standards. The results should then be evaluated as part of an entire air quality assessment to allow consideration of the most cost-effective approach to improving air quality.
- Up to date costs of meeting higher vehicle emission standards. For example, the additional cost of supplying a Euro 6 compliant vehicle over a Euro 5 compliant vehicle ranges from \$300 to \$800 per vehicle, depending on vehicle type and engine.
- A whole of economy approach to meeting improved vehicle emission and fuel quality standards especially when considering implementing CO₂ standards on new vehicles. For example, is there an overall net energy benefit to producing higher grade fuel that will be necessary for vehicles to meet CO₂ targets that are beyond current trends.
- Consideration of 'off-road' or 'non-road' consumption of transport fuels and their impact on the government's environmental and health objectives.

3.4 How can you contribute to the review?

The Issues Paper asks;

- *After providing a submission, are you or your organisation willing to be contacted for follow-up one-on-one discussions? If so, please provide contact details in your submission.*

For follow-up one-on-one discussions please contact:

Mr James Hurnall
Technical Director
Ph: 02 6229 8214
email: james.hurnall@fcai.com.au

4.0 CONCLUSION

The FCAI welcomes the opportunity to respond to the Federal Government's *Independent Review of the Fuel Quality Standards Act 2000 Issues Paper*.

The FCAI and member companies' long standing position is that fuel quality standards, GHG emission targets (i.e. CO₂ standards or targets) and vehicle pollutant emission standards all need to be considered together, as they are all interrelated. This position is shared by the global automotive industry, regulators and research organisations

Motor vehicle brands are reducing both CO₂ emissions and pollutant emissions year on year with the introduction of new technology in response to new regulations, market competition and consumer demand. An important component of being able to deliver new vehicle technology to continue to achieve improvements in vehicle emissions is improved fuel quality standards.

The FCAI considers that "future success on fuel quality" is a fuel quality available in the market that is consistent with the vehicle emission standards to deliver not only the vehicle operability requirements, but also the environmental and health benefits expected by government from reduced vehicle pollutant emissions and CO₂ emissions.

The FCAI is of the view that the most effective method to achieve nationally consistent fuel quality standards, that are enforceable and provides a suitable level of consumer protection, is through a national regulatory standard. Therefore, the FCAI supports nationally regulated fuel quality standards.

The FCAI trusts that the information contained in this submission assists the Department's work and the offers to participate further with the Review.

APPENDIX A THE AUSTRALIAN AUTOMOTIVE INDUSTRY

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

The automotive industry is a major contributor to Australia's lifestyle, economy and community and is Australia's largest manufacturing industry. The industry is wide-ranging and incorporates importers, manufacturers, component manufacture and distribution, retailers, servicing, logistics and transport, including activity through Australian ports and transport hubs.

In 2013, there were over 60 brands in the Australian market, with just over 1.1 million new vehicle sales per year. That is a lot of brands to service a market of our size equating to only around 16,000 new vehicles sold per brand. The following table provides a comparison of the competitiveness of global markets with double the number of new vehicles sold per brand in Canada, almost three times as many in the UK and more the 255,000 new vehicles sold per brand in the USA.

Table A.1 Competitiveness of Global Vehicle Markets²³

	Australia	Canada	UK	USA
No. of brands in market	67	49	53	51
Sales	1,112,032	1,620,221	2,249,483	13,040,632
Market size per brand	16,597	33,066	42,443	255,699

In 2014, only 9 per cent of new vehicles sold were manufactured locally with the remaining 91 per cent of new vehicles imported from many countries and regions of the world including Asia (65 per cent), Europe (17 per cent), North and South America (6 per cent) and other countries including South Africa (3 per cent) (see Table A.2).

Table A.2 Country/Region of Origin for New Vehicle Sales in 2014²⁴

Country/Region of Origin	% of New Vehicle Sales
Japan	30%
Thailand	20%
Europe	17%
Korea	12%
Australia	9%
Americas	6%
Other Asia (incl China and India)	3%
Other (incl South Africa)	3%

The motor vehicle is increasingly a global product and one of the most comprehensively regulated products. In considering regulations, the government's role is to balance social and economic benefits with safety and environmental performance.

As economies of scale are critical in the automotive industry all manufacturers have tended to limit the number of locations any one model is produced and that model is then cross-shipped to markets

²³ Australian government, Department of Industry, Innovation, Climate Change, Science, Research and Tertiary Education, March 2013 Automotive Update.

²⁴ FCAI, VFACTS National Report, New Vehicle Sales, December 2014.

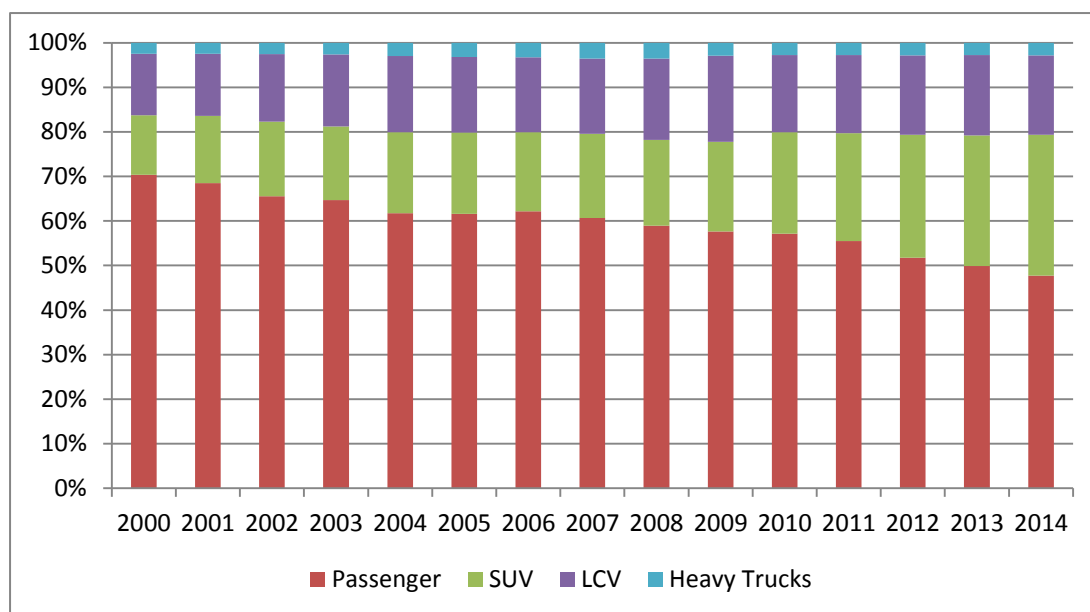
where there is demand. This approach initially benefits the manufacturer through reducing costs and ultimately benefits the consumer by improving affordability and increasing product choice.

Australia is a small player with less than 1.5 per cent of the global build sold in this market. Consequently, Australia's ability to influence global design and investment is limited and as individual states are even a smaller proportion of the market their ability to influence multi-national companies is correspondingly very limited.

The expansion of new and global brands and models into the market has led to the introduction of advanced security, safety and environmental features in motor vehicles. The introduction of these features is in response to increasingly strict environmental regulations and growing demands from consumers for advanced security and safety features.

The consumer preferences in the new Australian light vehicle market have changed significantly from 2000 to 2014 (see figure A.1). Over this time the share of passenger cars has decreased from around 70% to less than 50% of the market. The growth in the market has been in the SUV and light commercial vehicle segments. In 2014 SUVs were 31% and light commercial vehicles were 18% of the new vehicle market.

Figure A.1 – Australian New Vehicle Market; 2000-2014²⁵



²⁵ FCAI, VFACTS National Report, New Vehicle Sales, December 2000 to 2014

The FCAI's longstanding position that fuel quality standards, Green House Gas emission standards (i.e. CO₂ standards) and pollutant emission standards (i.e. ADR 79/0x or Euro 5/6) all need to be considered together, as they are all interrelated, is not a unique one. It is shared by the global automotive industry, regulators and research organisations alike.

B1. US EPA

The US EPA stated in their Tier 3 Motor Vehicle Emission and Fuel Standards;²⁶

"This program includes new standards for both vehicle emissions and the sulfur content of gasoline, considering the vehicle and its fuel as an integrated system."

and

"The systems approach enables emission reductions that are both technologically feasible and cost-effective beyond what would be possible looking at vehicle and fuel standards in isolation."

and

"EPA is not the first regulatory agency to recognize the need for lower-sulfur gasoline. Agencies in Europe and Japan have already imposed gasoline sulfur caps of 10 ppm, and the State of California is already averaging 10 ppm sulfur with a per gallon cap of 20 ppm."

The US EPA Tier 3 Gasoline Sulfur program sets an in-service gasoline standard of 10ppm sulphur from 1 January 2017;²⁷

"The final Tier 3 Gasoline Sulfur program is part of a systems approach to addressing the impacts of motor vehicles on air quality and public health, by considering the vehicle and its fuel as an integrated system. The program sets new vehicle emissions standards to reduce both tailpipe and evaporative emissions, and lowers the sulfur content of gasoline to a 10 ppm average sulfur level."

B2. European Commission

The European Commission (EC) also recognises fuel quality standards are linked to both pollutant and CO₂ standards. On their website page, "Road transport: Reducing CO₂ emission from vehicles"²⁸, the EC state;

"Fuel quality is an important element in reducing greenhouse gas emissions from transport."

B3. International Council on Clean Transportation

The non-profit research organisation, the International Council on Clean Transportation (ICCT), also recognises the importance of fuel quality standards.

In their inaugural *State of Clean Transport Policy*²⁹ report, released in 2014, the ICCT states;

"A key requirement to world-class vehicle standards, and thus cleaner vehicles, is the availability of ultralow-sulfur fuels." (Page 4)

and

²⁶ US Federal Register Vol. 79 No. 81, 28 April 2014, Part II Environmental Protection Agency 40 CFR Parts 79, 80, 85, et al. Control of Air Pollution from Motor Vehicles: Tier 3 Motor Vehicle Emission and Fuel Standards: Final Rule

²⁷ United States Environmental Protection Agency, Gasoline, www.epa.gov/otaq/fuels/gasolinefuels/index.htm [accessed 7 July 2015]

²⁸ European Commission (EC), Climate Action, Road transport: Reducing CO₂ emissions from vehicles, http://ec.europa.eu/clima/policies/transport/vehicles/index_en.htm [accessed 21 November 2014]

²⁹ Miller, Joshua D., Facanha, Cristiano, The International Council on Clean Transportation (ICCT), the State of Clean Transport Policy: A 2014 synthesis of vehicle and fuel policy development, 2014.

“Fuel quality, most notably the sulfur content of gasoline and diesel, is key to the implementation of advances emission controls. For optimal function of emission controls, ... Euro 6/VI-equivalent vehicles require fuel as low as 10 ppm sulphur.” (Page 18)

B4. World Wide Fuel Charter

The global auto industry position is based on the World Wide Fuel Charter³⁰ (WWFC) which is an extensive and comprehensive compilation of research and testing of engine, fuel and control systems by a wide group of expert contributors. The objective of the WWFC is to promote global harmonisation of fuel to:

- Reduce the impact of motor vehicles on the environment by enabling reduced vehicle fleet emissions;
- Facilitate the delivery of optimised fuels for each emission control category, which will minimize vehicle equipment complexities and help reduce customer costs (purchase and operation); and,
- Increase customer satisfaction by maintaining vehicle performance for a longer period of time.

The WWFC contains both minimum specifications of necessary fuel quality parameters and a summary of the impact of the various fuel parameters on vehicle operation. In the “Technical Background” section there is an excellent overview of the research conducted on the effects of octane and sulphur, in gasoline, and includes the following statements on octane and sulphur;

“Increasing the minimum octane rating available in the marketplace has the potential to help vehicles significantly improve fuel economy and, consequently, reduce vehicle CO2 emissions.” (Page 17)

and

“Sulphur removal requires prolonged rich operating conditions...” (Page 19)

Relevant to the consideration of a gasoline octane rating and level of sulphur for Australia, the WWFC outlines the required parameters for various fuel categories. The ones of specific relevance to Australia considering the current emission standards (i.e. ADR 79/04 or Euro 5) and proposed emission (ADR 79/05 or Euro 6) and fuel consumption standards are (Page 1):

Category 4:

Markets with advanced requirements for emission control, for example, markets requiring US Tier 2, US Tier 3 (pending), US 2007 / 2010 Heavy Duty On-Highway, US Non-Road Tier 4, California LEV II, EURO 4/IV, EURO 5/V, EURO 6/VI, JP 2009 or equivalent emission standards. Category 4 fuels enable sophisticated NOx and particulate matter after-treatment technologies.

Category 5:

Markets with highly advanced requirements for emission control and fuel efficiency, for example, those markets that require US 2017 light duty fuel economy, US heavy duty fuel economy, California LEV III or equivalent emission

The maximum sulphur level for both Category 4 and Category 5 gasoline is 10 ppm and Category 5 gasoline specifies a minimum of 95 RON (refer pages 6 and 7).

Cetane is a measure of the compression ignition of a diesel fuel and as such is significant fuel quality parameter in diesel. In the Technical Background (page 41), the WWFC outlines;

“Higher cetane generally enables improved control of ignition delay and combustion stability, especially with modern diesels which use high amounts of exhaust gas recirculation (EGR).”

³⁰ ACEA, Auto Alliance, EMA and JAMA, World Wide Fuel Charter, September 2013, 5th Edition, www.acea.be [accessed 9 October 2010]

and

“Cetane influence on NOx is very significant ... particularly at low speeds where reductions of up to 9% are achieved”

and

“The cetane increase also reduced HC emissions by 30-40%.”

The WWFC specifies a minimum Cetane Index of 55.0 for both Category 4 and Category 5 diesel.

B5. Australian Fuel Quality Standards

The current Australian market fuel quality standards are lower than the WWFC recommendations. The Australian fuel quality standards, set under the authority of the Commonwealth Fuel Quality Standards Act and consequential Fuel Standard determinations, specify the following grades of petrol (gasoline);

- Unleaded petrol (ULP) - 91 RON (min) and 150 ppm sulphur (max)
- Premium unleaded petrol (PULP) – 95 RON (min) and 50 ppm sulphur (max).

The Australian fuel quality standard sets a minimum Cetane Index of 46.0³¹ which is lower than the WWFC recommendations

A report prepared for the Australian Government in 2014 by Hart Energy, *International Fuel Quality Standards and Their Implications for Australian Standards*³², demonstrates where Australian fuel quality standards are behind international levels and provides a series of recommendations where Australian fuel quality specifications need to be reviewed and upgraded in line with international standards.

B6. Department of Environment

Orbital Australia reviewed existing standards and research on the impacts of sulphur levels in petrol for the Australian Commonwealth Department of the Environment in 2013³³.

Orbital Australia and reached similar conclusions to the WWFC extracts above;

- Fuel standards work in partnership with vehicle emission standards to reduce emissions.
- Exhaust emissions will be higher with existing Australia market fuels (150 ppm or 50 ppm sulphur) than if low sulphur (10 ppm) petrol is introduced.
- Reducing sulphur levels (to 10 ppm) would allow use of some specific technologies and also reduce fuel consumption through the reduction of frequency of catalyst regeneration.

This report also acknowledges the potential for degraded performance, operability and durability of some vehicle technologies due to low quality market fuel.

B7. Climate Change Authority

The FCAI considers that the analysis undertaken by the Climate Change Authority when developing their cost/benefit analysis of mandatory CO₂ targets³⁴ did not consider the implications of in-service fuel and subsequent in-field vehicle performance. In particular, the Climate Change Authority paper uses certification results to develop their benefit analysis. The certification fuel is 95 RON 10 ppm sulphur petrol.

³¹ Australian Government, Department of Environment, Diesel fuel quality standard, www.environment.gov.au [accessed 14 July 2015]

³² Hart Energy Research and Consulting, October 2014, *International Fuel Quality Standards and Their Implications for Australian Standards*, Final Report

³³ Orbital Australia Pty Ltd, 2013, *Review of Sulphur Limits in Petrol*, Produced for Fuel Policy Section, Department of Sustainability, Environment, Water, Population and Communities, 10 Jun 2013.

³⁴ Australian Government Climate Change Authority (CCA), *Light Vehicle Emission Standards for Australia: Research Report*, June 2014

If this fuel is not available in the market, it cannot be guaranteed that the same result will be delivered in service, especially if a vehicle owner is likely to use ULP which, in Australia, is currently regulated to be 91 RON 150ppm (max) sulphur. Therefore, the FCAI questions whether the full benefit as calculated will be delivered and considers that this cost/benefit analysis cannot form the basis for any regulatory analysis without additional testing to confirm in-service operation on market fuel will deliver the same result. Otherwise, to deliver the estimated benefits, the market fuel would have to be consistent with the certification fuel (i.e. 10 ppm sulphur, 95RON) to fully deliver a continued reduction in CO₂ emissions.

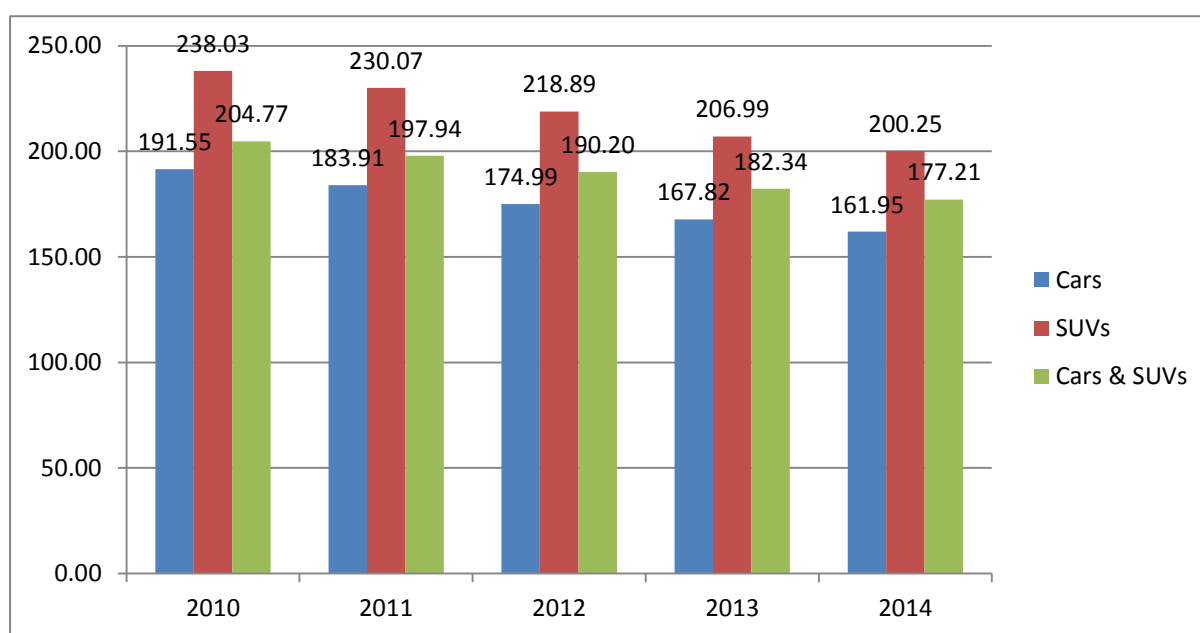
B8. FCAI Position

The FCAI has been consistent in its call for concomitant market fuel. This was highlighted in the FCAI's submission to the 2010 Regulatory Impact Statement (RIS) considering the introduction of Euro 5/6 emission standards. The regulation for Euro 5/6 (i.e. UN R83) specifies 95 RON 10 ppm sulphur petrol as the test fuel and the benefits estimated in the 2010 RIS for the introduction of Euro 5 and Euro 6 used the results of the regulation certification laboratory testing.

The average annual CO₂ reduction for all light vehicles in Australia of 2.4% is comparable to the annual CO₂ reduction of passenger cars in other developed countries. The average annual CO₂ reduction in the Australian new light vehicle market is even more comparable (and better in some cases) when considering only passenger cars or grouping passenger cars and SUVs together to provide a like-for-like comparison.

Using the data presented by the NTC in their Information Papers in 2011³⁵, 2012³⁶, 2013³⁷ and 2014³⁸ the CO₂ reductions from 2010 to 2014 for passenger cars and SUVs can be calculated (Figure C1 and Table C1).

Figure C.1 – Sales Weighted CO₂ for Cars and SUVs; 2010-2014



The European Commission reported that new cars sold in the EU in 2014 emit on average 2.6% less CO₂ than those sold in 2013, when using the results from the European drive cycle (the same test as used for the NACE). Over the period from 2010 to 2014, CO₂ emissions from new cars in the EU have decreased by 12%, which is an average annual reduction of 3%.³⁹ Over the same period CO₂ emissions from new passenger cars in Australia decreased by more than 15% and by more than 13% for cars and SUVs combined (see Table C1).

³⁵ National Transport Commission, 2012, Carbon Dioxide Emissions from New Australian Vehicles 2011; Information paper, March 2012

³⁶ National Transport Commission, 2013, Carbon Dioxide Emissions from New Australian Vehicles 2012; Information paper, March 2013

³⁷ National Transport Commission, 2014, Carbon Dioxide Emissions from New Australian Vehicles 2013; Information paper, May 2014

³⁸ National Transport Commission, 2015, Carbon Dioxide Emissions Intensity for New Australian Light Vehicles 2014; Information paper, April 2015

³⁹ European Commission, Climate Action, Reducing CO₂ emissions from cars, www.ec.europa.eu/clima/policies/transport/vehicles/cars [accessed 22 April 2015]

Table C.1 - CO2 Reductions (%) for Cars and SUVs; 2010-2014

Year	Cars	SUVs	Cars & SUVs
2011	3.99	3.34	3.34
2012	4.85	4.86	3.91
2013	4.10	5.44	4.13
2014	3.50	3.26	2.81
Total	15.45	15.87	13.46
Average	4.11	4.22	3.55

The ICCT reported that the average CO₂ emission levels for cars in Europe reduced by 17% between 2006 and 2012; an average annual reduction of 2.8%.⁴⁰

The Global Fuel Economy Initiative (GFEI) analysed the global fuel economy trends in OECD and non-OECD countries. The GFEI found that during the 8 year period of 2005 to 2013 the annual improvement rates were:⁴¹

- For OECD countries; 2.6%.
- For non-OECD countries; 0.2%.
- Global average; 2.0%.

The annual reduction of CO₂ emissions from new light vehicles in Australia is comparable to other developed countries when compared on a like-for-like basis, i.e. exhaust emissions measured in a drive cycle test across the same market segments.

It must acknowledge that the Australian car market is different to other major automotive (especially European) markets. In 2014, the National Transport Commission (NTC) released a Case Study comparing the Australian and UK markets⁴². The NTC found that:

- Australians have a preference for larger cars, SUVs and light commercial vehicles when compared to Europeans.
- Australians purchase vehicles with larger engines than Europeans.
- Australians purchase a higher proportion of vehicles with automatic transmissions than Europeans.

The NTC concluded that consumer preference was an important factor influencing the national average new vehicle carbon emissions and included in the key finding that:

Consumer preferences are an important factor affecting the national average of carbon emission for new vehicles. If all Australians who purchased new vehicles in 2013 had purchased vehicles with best-in-class emissions, the national average would be 34 per cent lower (126 g/km) than the actual national average that was achieved in 2013.

The NTC report also acknowledged that consumer preferences can be influenced by government policies and found that compared to the UK, Australia had:

- fewer policies aimed at reducing the average CO₂ emissions from vehicles,
- fewer lower CO₂ vehicles available for purchase, and

⁴⁰ International Council on Clean Transport (ICCT), 2014, Policy Update, *EU CO₂ Emission Standards for Passenger Cars and Light-Commercial Vehicles*, January 2014

⁴¹ Korner, A., Cazzola, P., Cuenot, F., (2014), International Comparison of light-duty vehicle fuel economy; Evolution over 8 years from 2005 to 2013, Working Paper 11

⁴² National Transport Commission, 2014, Carbon Dioxide Emissions from New Australian Vehicles 2013; Information paper, May 2014

- cheaper fuel.

On 17 April 2015, the National Transport Commission (NTC) released their update on new light vehicle CO₂ emissions⁴³ that included an analysis of the CO₂ emissions intensity of new light vehicles over the ten year period, 2005 to 2014. When releasing this report the NTC announced that⁴⁴;

“Australians are choosing to buy far more fuel efficient cars than they were ten years ago.”

The Climate Change Authority (CCA) also recognised that consumer preference has been a factor in reducing CO₂ emissions. The CCA consider that shifts between vehicle class, within vehicle class and also technology improvements have contributed to CO₂ emission reduction.⁴⁵

The average new light vehicle sold in Australia is now at least 25% more fuel efficient than it was in 2000. The annual 2.4% improvements in the NACE demonstrates the industry's commitment to making a strong contribution to national efforts to reduce the impact of global climate change through continuing to improve fuel efficiency and reduce carbon dioxide emissions from new vehicles.

⁴³ National Transport Commission, 2015, Carbon Dioxide Emissions Intensity for New Australian Vehicles 2014; Information paper, April 2015

⁴⁴ National Transport Commission, 17 April 2015 Media Release “Ten years of data show Aussies choosing lower emissions vehicles”, www.ntc.gov.au [accessed 19 April 2015]

⁴⁵ Climate Change Authority (CCA), 2014, Light Vehicle Emissions Standards for Australia Research Report, June 2014

Emission Limits for light vehicles (<3.5 tonnes GVM) under UN Regulations 83 at Euro 2, 3, 4, 5 & 6 levels⁴⁶

Category	Class	Reference mass (RW) (kg)	Limit Values (g/km)									
			Mass of carbon monoxide (CO)		Mass of hydrocarbons [Total and Non-methane] (THC) (NMHC) ⁽¹⁾		Mass of oxides of nitrogen (NOx)		Combined mass of total hydrocarbons and oxides of nitrogen (THC+NOx)		Mass of particulates ⁽¹⁾ (PM)	
			Petrol	Diesel	Petrol	Diesel	Petrol	Diesel	Petrol	Diesel	Diesel ⁽²⁾	
Euro 2	M ⁽²⁾	All	2.2	1.0	-	-	-	-	0.5	0.7	0.08	
	N _i ⁽³⁾	I	RW ≤ 1250	2.2	1.0	-	-	-	-	0.5	0.7	0.08
		II	1250 < RW ≤ 1700	4.0	1.25	-	-	-	-	0.6	1.0	0.12
		III	1700 < RW	5.0	1.5	-	-	-	-	0.7	1.2	0.17
Euro 3	M ⁽²⁾	All	2.3	0.64	0.20	-	0.15	0.50	-	0.56	0.05	
	N _i ⁽³⁾	I	RW ≤ 1305	2.3	0.64	0.20	-	0.15	0.50	-	0.56	0.05
		II	1305 < RW ≤ 1760	4.17	0.80	0.25	-	0.18	0.65	-	0.72	0.07
		III	1760 < RW	5.22	0.95	0.29	-	0.21	0.78	-	0.88	0.10
Euro 4	M ⁽²⁾	All	1.0	0.50	0.10	-	0.08	0.25	-	0.30	0.025	
	N _i ⁽³⁾	I	RW ≤ 1305	1.0	0.50	0.10	-	0.08	0.25	-	0.30	0.025
		II	1305 < RW ≤ 1760	1.81	0.63	0.13	-	0.10	0.33	-	0.39	0.04
		III	1760 < RW	2.27	0.74	0.16	-	0.11	0.39	-	0.46	0.06
Euro 5 ⁽⁴⁾	M	All	1.0	0.50	0.10 (0.068)	-	0.06	0.18	-	0.23	0.0045	
	N _i	I	RW ≤ 1305	1.0	0.50	0.10 (0.068)	-	0.06	0.18	-	0.23	0.0045
		II	1305 < RW ≤ 1760	1.81	0.63	0.13 (0.09)	-	0.075	0.235	-	0.295	0.0045
		III	1760 < RW	2.27	0.74	0.16 (0.108)	-	0.082	0.28	-	0.35	0.0045
Euro 6 ⁽⁴⁾	M	All	1.0	0.50	0.10 (0.068)	-	0.06	0.08	-	0.17	0.0045	
	N _i	I	RW ≤ 1305	1.0	0.50	0.10 (0.068)	-	0.06	0.08	-	0.17	0.0045
		II	1305 < RW ≤ 1760	1.81	0.63	0.13 (0.09)	-	0.075	0.105	-	0.195	0.0045
		III	1760 < RW	2.27	0.74	0.16 (0.108)	-	0.082	0.125	-	0.215	0.0045

- (1) For compression ignition (diesel) engines only
- (2) Except Category M vehicles of which the maximum mass exceeds 2,500 kg. For ADR79/00 (Euro 2) only, category M vehicles with more than 6 seats are also covered by the N category
- (3) And those Category M vehicles which are specified in note (2)
- (4) A particle number standard of 8.0×10^{11} particles/km will apply to diesel vehicles from Euro 5 onwards
- (5) PM mass limits also apply from Euro 5 onwards to petrol vehicles with direct injection engines

⁴⁶ Extract of summary document downloaded from Department of Infrastructure and Regional Development website



European
Automobile
Manufacturers
Association



CLEPA
European Association of
Automotive Suppliers



OPEN LETTER TO EUROPEAN POLICY MAKERS

Brussels, 8 July 2015

Dear EU policy maker,

European vehicle manufacturers and their suppliers, in cooperation with the refining industry, lead the world in the development of state-of-the-art diesel engine technology. We have introduced high-efficiency diesel engines and diesel particulate filters that eliminate almost all particle emissions from the exhaust tailpipe. The very latest generation of diesel technology combines clean diesel fuel, advanced engines and effective emissions control mechanisms.

The undersigned, leading representatives of the automotive and petroleum refining industry in Europe, will keep pushing the technical boundaries in order to find ever better ways of combining the customer benefits of diesel – in terms of fuel economy and low CO₂ - with continuously reduced emissions.

Since 1992, the EU has introduced increasingly stricter limits on vehicle emissions through a series of 'Euro' standards, and the industry has played its part by demonstrating technical feasibility as a basis for those standards. The latest and most stringent of these standards is Euro 6. New car types already comply with Euro 6, and from 1 September 2015 all new cars sold will have to meet this standard. Criticisms that Euro 5 cars fail to deliver real-world improvements compared to the laboratory test cycle conditions are also being addressed. Euro 6 will require real-world emissions testing of cars for the first time. The automotive industry is actively supporting these developments.

Technical innovation has helped progressively to lower vehicle emissions - over the last 15 years, NO_x limits for diesel engines have been reduced by 84%, and particulates by 90%.

Diesel cars, having significantly lower CO₂ emissions per kilometer, are essential to manufacturers' efforts to reach the EU's 2021 CO₂ fleet average targets and thereby help reduce road transport CO₂ emissions and mitigate climate change. With continuing efficiency improvement, diesel will continue to be essential in meeting post-2021 targets.

Political measures restricting the rollout of the new generation of diesel technology would therefore undermine existing efforts to cut CO₂ emissions. Such measures make no sense from an environmental point of view.

Fleet renewal offers the most effective way to improve air quality. As older cars and trucks are replaced by newer models, emissions from road transport will fall as the latest emission-reducing technologies enter the market. The automotive industry calls on policy makers to help



European
Automobile
Manufacturers
Association



CLEPA
European Association of
Automotive Suppliers



Association For Emissions Control by Catalytic converters



REFINING PRODUCTS FOR OUR EVERYDAY LIFE

accelerate this fleet renewal and the introduction of the cleanest vehicles. This is particularly important as new vehicles (less than one year old) only represent a small fraction of the total current car fleet (some 5%).

With a common EU policy framework that encourages the more rapid adoption of the latest low-emissions technologies, but taking into account necessary industry lead-time, we will help improve air quality in real driving conditions, while at the same time continuing to meet current CO₂ targets.

With your support, we will continue to work together to ensure modern diesel remains one of the key pillars in the portfolio of low CO₂ technologies for delivering clean, economical and affordable transport for future generations.

Yours sincerely

pp
Carlos Ghosn
ACEA President and CEO Renault

pp
Arnaud De David-Beauregard
CLEPA President

pp
Michael Neisel
AECC President

Michel Bénézit
FuelsEurope President