

10 March 2017

Ms Judi Zielke
Deputy Secretary
Ministerial Forum on Vehicle Emissions
Department of Infrastructure and Regional Development
CANBERRA ACT

DRAFT REGULATION IMPACT STATEMENT – IMPROVING THE EFFICIENCY OF NEW LIGHT VEHICLES

Dear Judi

Gas Energy Australia is pleased to make a submission to the Ministerial Forum on Vehicle Emissions Draft Regulation Statement – *Improving the Efficiency of New Light Vehicles*.

By way of background, Gas Energy Australia (GEA) is the national peak industry body for the bulk of the downstream gaseous fuels industry, including Liquefied Petroleum Gas (LPG), Liquefied Natural Gas (LNG) and Compressed Natural Gas (CNG). The industry comprises major companies and small to medium businesses in the alternative gaseous fuels supply chain; refiners, fuel marketers, equipment manufacturers, vehicle converters, consultants and other providers of services to the industry.

Gaseous fuels are a significant source of energy in Australia, providing energy for homes and businesses and the fuel to power vehicles. The LPG sector alone in 2015 had domestic production totaling over 1.8 million tonnes of product. *The Energy in Australia 2014* publication by the Bureau of Resources and Energy Economics (BREE) estimated that 3 per cent of energy consumption in the transport sector is autogas (LPG) and that natural gas (LNG and CNG) accounted for approximately 2 per cent of transport energy consumption¹.

The role of gaseous fuels in the Australian transport sector is significant with:

- almost 380,000 LPG powered vehicles;
- in excess of 3,300 dispensers supplying Autogas to Australians every day;
- over 4,000 CNG buses; and
- over 3,700 natural gas powered rigid trucks and non-freight carrying vehicles.

GEA applauds the Government's actions in taking a whole-of-government approach to vehicle emissions. It is through looking at all three aspects of vehicle emissions – CO₂, noxious emissions and fuel quality that the best outcome will be achieved for both consumers and the environment. Particularly as focusing on one aspect of emissions may change consumer behaviour to such an extent that other undesirable results occur. For example, if the Government were to examine CO₂ emissions in isolation it may result in an increase in the dieselisation of the fleet, such as occurred in Europe. Whereas, looking at vehicle emissions in their entirety should ensure that noxious emissions of oxides of nitrogen and sulfur (NO_x and SO_x), particulate matter (PM), hydrocarbons and carbon monoxide (CO), which are all harmful to humans, are also included in the discussion.

¹ Bureau of Resources and Energy Economics – Energy in Australia 2014

- As highlighted in the AMBARC research “*Analysis of the Australian 2015 New Light Vehicle Fleet and Review of Technology to Improve Light Vehicle Efficiency*” (commissioned by the Department of Infrastructure and Regional Development), an outcome of meeting the Australian Climate Change Authority’s Target A in 2025 (105g CO₂/km), might well be a greater number of diesel vehicles, around 57 per cent of the fleet. Australia’s vehicle fleet is currently dominated by petrol vehicles at nearly 70 per cent of the fleet.
 - If the Government were just to look at reducing CO₂ emissions, dieselisation of the fleet could be increased and this would result in worse outcomes for air quality and human health and mortality.

GEA is encouraged by the Government’s efforts to extensively consult with industry to investigate potential measures to address CO₂ and noxious emissions from vehicles in Australia. With transport accounting for around 17 per cent of total emissions in Australia, there is significant scope for this sector to contribute to the Government’s environmental objectives. In particular, GEA supports the Government’s commitment to maintaining a technology neutral approach to assessing the implementation costs, environmental benefits and other impacts of different policy options to ensure that the most efficient and cost effective option is pursued rather than the most popular.

Australia has vast supplies of affordable LPG and natural gas which both have a low carbon and noxious chemical content. Hence, the gaseous fuels industry is confident that it can assist the transport sector to achieve improved emission and environmental outcomes with the aid of supportive government policy settings. For example:

- Autogas emits 22 per cent less CO₂ than petrol;
- Autogas emits 95 per cent less NO_x than diesel;
- Autogas emits 68 per cent less NO_x than petrol; and
- Autogas produces 120 times less small particle emissions than diesel vehicles².

Natural gas fuels – CNG and LNG – are cleaner and healthier than diesel, having:

- 30 per cent lower CO₂;
- 75 per cent lower NO_x;
- 90 per cent fewer particulate emissions; and
- 99 per cent lower SO_x³

Additionally, gaseous fuels are indigenous fuels, which increases Australia’s energy security as we are less reliant on imported fuels. Gaseous fuels are also locally produced and distributed, generating jobs and economic benefits for Australia.

² WLPGA *Autogas*, European Commission *Life Cycle Assessment*

³ www.ferus.com/products-services/products/lng-cng

GEA is pleased to provide the following responses below to the specific questions in the Draft Regulation Statement on *Improving the Efficiency of New Light Vehicles* which we hope will be considered in the development of measures to reduce vehicle emissions.

Improving the Efficiency of New Light Vehicles

1. What parameter (CO₂ emissions or fuel consumption) should be used for an Australian fuel efficiency standard and why?

GEA considers that the CO₂ emissions parameter should be used for an Australian fuel efficiency standard. The aim of the standard is to reduce CO₂ emissions from the transport sector, so by focusing on the parameter which reflects the policy objective, CO₂ emissions are more likely to be reduced. Moreover, vehicle operators have a financial incentive to purchase vehicles with low fuel consumption while such an incentive does not exist for vehicles with low CO₂ emissions.

2. How should a vehicle's efficiency for the purposes of an Australian fuel efficiency standard be assessed and why?

GEA generally supports the use of global standards, including those for vehicle test procedures. We would also like the Government to recognise comparable testing overseas and require the use of portable emissions measurement systems (PEMS) to get a more realistic measurement of emissions.

- GEA considers that any standard introduced must not result in an increased discrepancy between average laboratory testing and real world fuel efficiency.

3. How should a sales weighted average target be applied in Australia and why?

GEA notes that both the US and EU have adopted attribute based standards, albeit using different attributes. GEA is supportive of an attribute system as it would allow each vehicle model to have its own target based on the particular attribute agreed by the Government. It would also make it easier for manufacturers to continue to offer numerous models of vehicles to the market.

4. If an attribute based standard is adopted, which attribute should be adopted in Australia, and why?

GEA considers that the mass based attribute system should be adopted in Australia. Adoption of this system would allow new emission reduction technologies to be taken-up by the vehicle fleet as there would be no discrimination against heavier vehicles. This technology, while often adding weight, can

result in lower emitting vehicles. Additionally, gas fueled vehicles, which are lower CO₂ producers and discharge less NO_x, SO_x and particulates, are heavier than like-petrol and diesel vehicles and should not be discouraged from entering the market.

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| 5. | How should a fuel efficiency standard be applied to each light vehicle category and why? |
| 6. | If SUVs are subject to a different target to passenger cars, how should SUVs be defined and why? |

GEA considers that it would be prudent for the Government to introduce two fuel efficiency standards, one standard would be for passenger cars and SUVs and the second target would be for light commercial vehicles. This would result in a separate standard being set for LCVs. Setting a separate standard for LCVs avoids imposing a heavier burden on manufacturers who sell a higher proportion of LCVs. Additionally, some technologies that could be utilized to improve the efficiency of PMVs could compromise attributes valued by consumers in the LCV market.

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| 7. | How should targets for a fuel efficiency standard be phased in and why? |
| 8. | If annual targets are adopted, what targets should apply in each year for each segment and why? |
| 9. | If a percentage phase is adopted, what percentage should apply in each year and in each segment and why? |
| 10. | What flexibility arrangements should be allowed under an Australian fuel efficiency standard and why? |

GEA supports the second option – adopt a single fleet average target, phased in on a percentage of sales basis from 2020 to 2025. Additionally, GEA favours the early introduction of the standard and notes that Table 3 in the Draft Regulation Statement shows car models now sold in Europe have much lower CO₂ emissions than the versions of the same model currently sold in Australia. We further note that this approach is similar to that adopted in the EU.

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| 11. | What, if any, credits should an Australian fuel efficiency standard adopt to further encourage the supply of more efficient vehicles, and why? |
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GEA supports the introduction of a credit-based system that rewards emissions reductions but not one that rewards the use of particular technologies. Indeed, it is vital that any credit-based system is technology neutral, and does not favour particular technologies. Gas-fuelled vehicles are better for the environment than their petrol and diesel alternatives, consequently, they should be included in the credit-based system.

GEA also notes that in the Regulation Impact Statement the possible guidelines for assessment of off-cycle technologies state that to be considered for assessment, the specific technologies must:

Be supplied and fitted to the vehicle by or on behalf of the manufacturer before the vehicle's first supply to the market (aftermarket technologies fitted to a vehicle by third parties are ineligible)

GEA strongly opposes this. Government policy should recognise that the retrofitting of a new light vehicle in a way that reduces its emissions, eg, converting it to run on autogas or CNG, can make a significant contribution to lowering emissions. There should be a mechanism in the guidelines to allow for gas vehicles to be included in the credit-based system. This is particularly important as there are currently no new gas vehicles being manufactured in Australia and none being imported, so the only way to get more environment friendly gas vehicles on the road is to retrofit vehicles to run on gas.

GEA considers that the RIS should be reworded regarding aftermarket technologies to:

Be supplied and fitted to the vehicle prior to its first registration

12. Which entities should be required to comply with a fuel efficiency standard, and why?

GEA has no comment on this question.

13. What concessional arrangements should be offered to low volume suppliers under an Australian fuel efficiency standard and why?

GEA supports consideration of concessional arrangements for low volume suppliers.

14. What penalties should be applied to entities that failed to comply with a fuel efficiency standard and why?

GEA considers that financial penalties should be applied.

We would be more than happy to discuss our submission with you in more detail.

Yours sincerely

A handwritten signature in black ink, appearing to read "John Griffiths", with a long horizontal flourish extending to the right.

John Griffiths
Chief Executive Officer