10 March 2017

Vehicle Emissions Working Group
Department of Infrastructure and Regional Development
GPO Box 594
CANBERRA ACT 2601

Per email: vemissions@infrastructure.gov.au

Dear Sir or Madam

Shell Australia is pleased to offer the following comments in response to the Draft Regulation Impact Statement on Improving the efficiency of new light vehicles.

Shell is a global group of energy and petrochemical companies, with its headquarters in The Hague, the Netherlands. Shell operates in over 70 countries around the world and employs around 94,000 people. Shell has been investing in Australia since 1901 and Australia forms a core part of Shell's global natural gas business. Historically, Shell's operations in Australia spanned across both the downstream and upstream sectors. However, following the sale of our refining and most retail operations to Viva Energy (Australia) Pty Ltd in 2014, our operations are now focused on the exploration, development and production of natural gas.

Shell has long recognised the importance of the climate challenge along with the ongoing critical role energy plays in enabling a decent quality of life for people across the world. The global energy system is changing, both to meet greater demand and to respond to environmental stresses. The big challenge for society is how to provide more energy for a growing population with much less carbon dioxide.

The transportation of people and goods to keep economies growing and to provide people with their desired quality of life is critical to the global energy transition under way. The transition of the transport sector specifically will be challenging– but not impossible. Globally, Shell is working with stakeholders to implement a wide variety of policies that will lower the carbon intensity of transport. Emissions from transport are responsible for approximately one-fifth of global emissions, with emissions from passenger road transport making up half of those emissions.[1] With energy service demands for transport expected to grow to three to four times larger than they are today[2], significant improvements in global emissions performance of passenger transport will be needed if countries are to realise their lower carbon aspirations.

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[1] Source: *New Lens Scenarios: A Shift in Perspective for a World in Transition*, a Royal Dutch Shell publication, pg 86.
[2] *A Better Life with a Health Planet: Pathways to Net-Zero Emissions*, a New Lens Scenario supplement, a Royal Dutch Shell publication, pg 31.

Accordingly, Shell congratulates the Federal Government on its intention to improve the efficiency of the light vehicle fleet in Australia. There is no doubt that reducing emissions from transport is absolutely vital if Australia is to have any chance of meeting its international commitment to reduce greenhouse gas emissions by 26-28 per cent below 2005 levels by 2030. Our own analysis as to how Australia could meet its commitment assumes that fuel efficiency needs to at least double by 2030, in conjunction with a variety of other significant measures in the other energy sectors, such as power and industry. The measures laid out in the Draft Regulatory Impact Statement are a good start, and will need to be built on in coming years.

In relation to the specific measures detailed in the Draft RIS, Shell supports the adoption of a legislated fuel efficiency standard to target an overall fleet average of 105g CO_2/km in 2025. Shell believes that the time is right for Australia to adopt standards equivalent to those already in effect in the EU and the US. Shell operates in many of the countries and regions identified in the Draft RIS that have already implemented vehicle efficiency measures, such as the EU, the USA, Canada, and China. The measures adopted in those countries have undoubtedly assisted in them improving the efficiency of their passenger car fleet, and it is difficult to see why Australia should not follow their lead in trying to achieve the same outcome. Given the cost/ benefit analysis laid out in the RIS, it is similarly difficult to see why Australia should not aspire to the measure that provides the highest net benefit, and importantly the most significant greenhouse gas savings. In our view, there are few other measures across the economy that could be taken in a relatively short period of time that would provide the same results, and even fewer that will likely result in a net negative cost to the economy.

In designing this standard, Shell supports the use of a CO_2 emissions parameter, given that it is CO_2 emissions reduction that is the driving force behind the desire to introduce such a standard.

In making these submissions, it should be recognised that while global internal combustion engine efficiency improvements have and will continue to deliver considerable fuel and emissions savings, they may well reach their technological limit with the next few decades. To that end, Shell encourages the Commonwealth Government to continue to pursue effective transport decarbonisation in the coming years in addition to introducing a legislated fuel efficiency standard.

The recent publication from Shell's renowned Scenarios unit, *A Better Life with a Healthy Planet*[3], states that passenger road transport will be the easiest to electrify, with battery and fuel cell electric vehicles potentially reaching 80% of the global passenger car fleet over coming decades. EVs are particularly suited for short-and-medium distance travel in urban environments and densely populated regions, where recharging points can be easily concentrated to minimise the risk of batteries running out of power mid-journey. Given this, Shell sees a plausible scenario for Australia where EVs make up 80% of new passenger car sales, with the balance potentially being hybrid vehicles using second generation biofuels as their liquid fuel source. EVs would account for 30% of kilometres driven, and would be refuelled from a manufacturer agnostic infrastructure network.

Overall, we believe that effective transport decarbonisation also requires the coordination and integration between policies that impact vehicles, fuels, infrastructure and consumer choice. Governments should support development of all low carbon fuel options, such as hydrogen fuel cell electric vehicles, sustainable biofuels and LNG-fuelled vehicles. As well as supply-side measures, demand must simultaneously be stimulated via consumer incentives to encourage purchase of low-carbon, alternative vehicles and fuels until they are able to compete.

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[3] Ibid, pg 31

Shell Australia no longer operates a refining and marketing business in Australia, having sold that part of its business to Viva Energy Australia Pty Ltd in August 2014. As such, Shell has no current direct experience of the issues likely to be raised by the proposal in the Draft Regulatory Impact Statement on noxious emissions standards or the matters raised in the Discussion paper on Better fuel for cleaner air, and provides no comments on those papers.

We would be pleased to further discuss the matters raised in this submission. Please contact the ██

Yours faithfully
Shell Australia Pty Ltd

Catherine Ellis
Country Transitions Manager
Energy Transitions Programme