



**Submission to the Department of Infrastructure and  
Regional Development**

**Vehicle Emissions Standards for Cleaner Air  
Draft Regulation Impact Statement**

**10 March 2017**

## Introduction

1. The National Road Transport Association (NatRoad) is pleased to make comments on the *Vehicle Emissions Standards for Cleaner Air* Draft Regulation Impact Statement (Draft RIS) prepared by the Department of Infrastructure and Regional Development and released for consultation in December 2016.
2. NatRoad is Australia's largest national representative road freight transport operators' association. NatRoad represents road freight operators, from owner-drivers to large fleet operators, general freight, road trains, livestock, tippers, express car carriers, as well as tankers and refrigerated freight operators.
3. The Draft RIS on vehicle emissions standards for cleaner air sets out the Australian Government's objective to improve urban air quality and reduce the adverse impacts of urban air pollution on human health by introducing more stringent noxious emission standards for light and heavy road vehicles.
4. The Draft RIS proposes the following six policy options to achieve this objective:
  - Option 1 – business as usual
  - Option 2 – fleet purchasing policies
  - Option 3 – voluntary standards
  - Option 4 – mandatory standards (Euro 6) for light vehicles
  - Option 5 – mandatory standards (Euro VI) for heavy vehicles, and
  - Option 6 – mandatory standards for light and heavy vehicles (Euro 6 and VI).
5. Option 5 proposes mandating Euro VI emissions standards for heavy vehicles. The Draft RIS estimates a positive cost benefit ratio of 1.13 and net benefit of \$264 million over the period 2016 to 2040. Under this option, it is assumed the avoided health costs of \$2.36 billion will outweigh the increased costs of \$2.09 billion, which were assessed on the basis of capital costs, fuel costs, urea/diesel exhaust fluid costs, productivity losses and greenhouse gas emissions. The analysis is based on an implementation period of 2019 for new heavy vehicle models and 2020 for all new heavy vehicles.
6. Although the cost benefit ratio of Option 4 is the highest (1.28), the Draft RIS recommends Option 6 which combines the net benefits of mandating both Euro 6 for light vehicles and Euro VI for heavy vehicles. Option 6 estimates a positive cost benefit ratio of 1.19 and net benefit of \$675 million over the period 2016 to 2040. The higher reported benefits under Option 6 are primarily a result of the inclusion of light vehicles.
7. Australia previously mandated the Euro V emission standards for all heavy vehicles manufactured from 1 January 2011. The main changes under Euro VI compared with Euro V are an 80 per cent reduction in nitrogen oxide emissions, a reduction in particulate matter (PM) by up to 66 per cent, and the adoption of a more robust testing regime.

8. NatRoad does **not support** the mandatory adoption of Euro VI emission standards on the basis that:
- the Draft RIS underestimates the costs of Option 5 and hence Option 6 for heavy vehicle operators
  - the Draft RIS provides no offsets against these costs nor does it offer incentives for heavy vehicle operators to modernise their fleet which will have the unintended consequence of keeping older polluting trucks on the road for longer, and
  - the increased costs are unfairly distributed to rural and remote communities who will not benefit from the improved air quality in the same way as the urban population.
- This submission outlines these issues further below.

### **Increased costs for heavy vehicle transport operators**

9. Since 1996 and the introduction of Euro I, engine complexity and maintenance requirements have greatly increased, as has fuel consumption. As a consequence, newer truck models have become less productive and more expensive to operate.
10. To meet Euro VI, the Draft RIS acknowledges that heavy vehicle manufacturers may be required to fit additional technology that adds weight and/or takes up more space. This will lead to a loss in productivity for heavy vehicle operators in the form of reduced payload. There will also be higher fuel costs for heavy vehicle operators due to the increased weight for Euro VI technology, as well increased use of Exhaust Gas Recirculation systems, which tend to be less fuel efficient.
11. Maintenance costs are also likely to increase, notably in relation to the exhaust after-treatment system. However, the Draft RIS does not include any additional maintenance costs in adopting Euro VI due to limited information and acknowledges that this will lead to an under-estimation of the total implementation costs.<sup>1</sup>
12. The emission reduction under Option 6 is designed to benefit the health of the urban population. Yet sixty per cent of the costs are directly imposed on the heavy vehicle freight industry. There are no offsets proposed in the draft RIS, which simply concludes that heavy vehicle operators may pass these increased costs onto consumers through higher prices for transported goods.

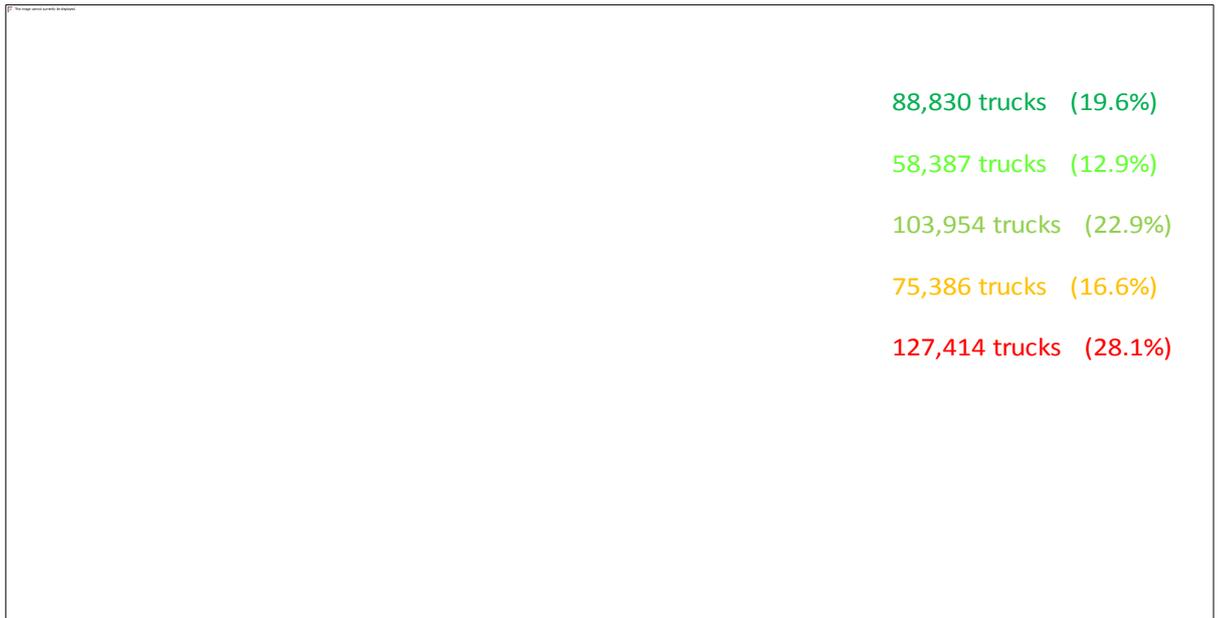
### **Reducing emissions of the existing vehicle fleet**

13. Data from the Truck Industry Council indicates that the Australian truck fleet is getting older. Graph 1 summarises the engine exhaust emission standards of Australia's truck stock and shows that 28 per cent of heavy vehicles pre-date any emission standard while the least polluting trucks on our roads, those complying with the ADR 80/03 (Euro V) emission standard, make up the smallest segment, representing 19.6 per cent.

---

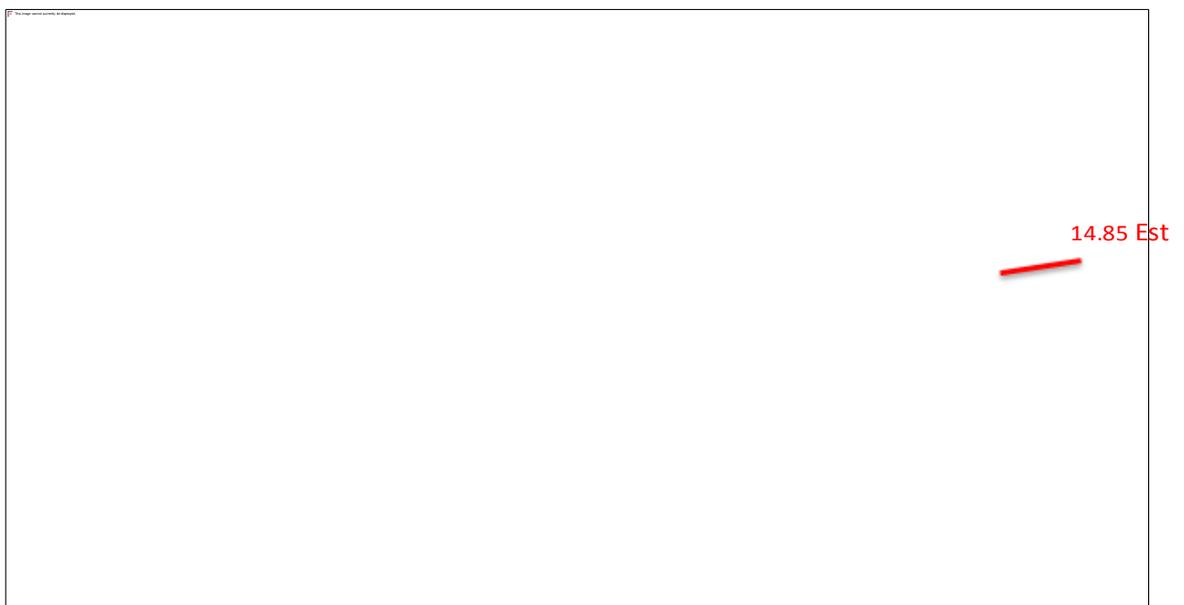
<sup>1</sup> Australian Government, *Vehicle emissions standards for cleaner air: Draft regulation impact statement*, December 2016, p.75

**Graph 1:**<sup>2</sup>



14. Graph 2 below details the new truck sales volume and the average age of the Australian truck fleet from 2000 to 2016 inclusive. It can clearly be seen that during years of new truck sales growth the average age of the truck stock fell, while in more recent years with static or reducing sales the Australian truck stock is growing older.

**Graph 2:**<sup>3</sup>



15. Just one pre 1996 truck emits 60 times the PM of a 2007 or later truck (due to today's advanced exhaust emission technologies). Typically these older trucks operate in urban areas.

<sup>2</sup>, <sup>4</sup> Truck Industry Council Fleet Report 2015 (figures updated)

16. NatRoad notes that since the Australian Government first regulated noxious emissions through the Australian Design Rules (ADRs), the amount of emissions has become smaller for each successive ADR with the most significant reduction being achieved through the adoption of Euro I and Euro III.<sup>4</sup>
17. The adoption of Euro VI will make a relatively small impact on emission reduction in comparison to previous ADRs. Given that 28 per cent of the heavy vehicle stock in Australia still consists of pre-1996 models with no emission standard, the expected emission reductions under the current requirements have not yet been achieved.
18. The increased costs of adopting Euro VI will encourage heavy vehicle operators to continue using older trucks, unless the Australian Government explores ways to incentivise operators to modernise their fleets, with a focus on pre 1996 trucks. The aim is to accelerate the adoption of new ADR 80/03 diesel only trucks and the adoption of new alternatively fuelled and powered trucks into the Australian market.

#### **Amending vehicle design standards to increase the use of Euro VI vehicles**

19. NatRoad strongly **recommends** that the policy options should be designed to maintain the productivity of vehicles and improve the incentives to heavy vehicle operators to use Euro VI vehicles, for example by increasing steer axle mass limits and increasing vehicle width and length. This would make Euro VI vehicles more competitive compared to a Euro V or earlier truck.

#### **Fuel Tax Credits reform**

20. When it came into force, the *Fuel Tax Act 2006* included a powerful incentive for heavy vehicle operators to maintain their vehicles, as it required vehicles manufactured before 1 January 1996 to meet maintenance or testing criteria to be eligible for fuel tax credits. Whilst this originally applied to 61 per cent of the trucks registered in Australia, by 2016 this had fallen to 33 per cent of the trucks in service, meaning a majority of the truck fleet no longer has to meet any maintenance requirement or test to be eligible to receive fuel tax credits.
21. Regular maintenance is the key to ensuring that vehicles continue to meet emission standards. Nat Road **recommends** amending the *Fuel Tax Act 2006* to remove the 1 January 1996 threshold so that every on-road truck has to meet maintenance or testing criteria to be eligible for fuel tax credits.

#### **Other options to reduce vehicle emissions**

22. The Draft RIS assessment clearly shows that the impact of light vehicle emissions have the potential for greater net benefits than those from heavy vehicles, yet there is no consideration of other options for improving emissions from light vehicles or a focus on

---

<sup>4</sup> Department of Infrastructure and Regional Development, *Vehicle Emissions Standards for Cleaner Air*, 2016, Figure 11, p.67

improving emissions in urban settings. For example, the ACT Government is encouraging greater uptake of electric vehicles, which has included investing in electric vehicle recharging stations and an electric bus trial.<sup>5</sup>

23. Policies to reduce road congestion can also have the effect of reducing vehicle emissions by improving the efficiency of vehicle use. Consideration should also be given to improving emission standards in off-road engines.

### **Regional impacts**

24. Both Option 5 and 6 impose an unfair cost on rural and remote operators as well as communities in regional areas who have to pay higher prices for transported goods, because these communities will not benefit from the reduced health costs in the same way as the urban population. The draft RIS has not considered these impacts.

### **Conclusion**

25. NatRoad does not support mandating Euro VI for heavy vehicles as recommended in the Draft RIS without further analysis of the impacts of this proposal on the transport industry and the potential unintended consequences that may arise from implementation.
26. NatRoad notes that heavy vehicle manufacturers are already offering Euro VI (or equivalent US or Japanese standards) compliant trucks in Australia, well before any formal decision has been made by the Australian Government to mandate these more stringent emission standards.<sup>6</sup> This fact is also acknowledged in the Draft RIS, however the impact of these market forces are not further explored in the Draft RIS as an alternative to regulation.
27. NatRoad **recommends:**
  - the adoption of Option 4 as a first step and that further work be undertaken to fully assess the impact of mandating Euro VI, and
  - that the Australian Government in conjunction with the states and territories examine other options of reducing heavy vehicle emissions in urban areas, including incentives for heavy vehicle operators to modernise their fleet.

---

<sup>5</sup> ACT Government, *Transforming Canberra's transport to be emission-free*, 6 December 2016, [http://www.cmd.act.gov.au/open\\_government/inform/act\\_government\\_media\\_releases/rattenbury/2016/transforming-canberras-transport-to-be-emission-free](http://www.cmd.act.gov.au/open_government/inform/act_government_media_releases/rattenbury/2016/transforming-canberras-transport-to-be-emission-free)

<sup>6</sup> <http://www.truck-industry-council.org/content.php/category/id/9>