6 February 2020
Our Reference: CCF/546 DOC20/2722

The Hon Lou Amato MLC
Committee Chair
Joint Standing Committee on Road Safety
Parliament of New South Wales
Macquarie Street
SYDNEY NSW 2000

Via email: staysafe@parliament.nsw.gov.au

Dear Mr Amato

Re: Submission by the National Heavy Vehicle Regulator to the inquiry examining the reduction in road trauma on local roads in New South Wales

Please find attached for consideration by the Committee, the National Heavy Vehicle Regulator's (NHVR) submission to the inquiry intro reducing road trauma on local roads in New South Wales.

The NHVR has paid particular attention to the Performance Based Standards (PBS) Scheme for our submission, given the key safety benefits to both community safety and public assets derived from the Scheme.

The NHVR is confident that this Scheme will continue to improve safety on local roads that in turn will contribute to a downward trend in local road trauma, as well as becoming a vital tool to be used during local road safety programs and community strategic planning.

If you have any questions, please don't hesitate to contact me on 07 3309 8510.

Yours sincerely

Sal Petroccitto
Chief Executive Officer

Enc(1): NHVR's submission to the inquiry examining the reduction in road trauma on local roads in NSW

NHVR
National Heavy Vehicle Regulator

NSW Parliament Inquiry

Joint Standing Committee on Road Safety

Reducing trauma on local roads in NSW

NHVR Submission

6 February 2020

Terms of reference

The Committee will inquire into and report on reducing trauma on local roads in NSW with specific reference to:

- The role of local roads in road safety and trauma
- The effectiveness of existing road safety planning requirements, including in other jurisdictions
- Opportunities for improving road safety planning and management on local roads, including through the Local Government Road Safety Program and Community Strategic Planning
- The role of local communities and their representatives in identifying and delivering road safety initiatives to reduce trauma on local roads
- Other relevant matters.

Overview

The National Heavy Vehicle Regulator (NHVR) is Australia's dedicated statutory regulator for heavy vehicles and pursues improvements to safety, productivity and efficiency outcomes across the heavy vehicle transport sector and the Australian economy.

The NHVR values safety as our number one priority and we work closely with our government and industry partners to deliver a risk-based and evidence led approach to safety that focuses on the highest safety risks.

A core part of the NHVR's work is with road managers in assisting them undertake their important role in providing consent for heavy vehicle access to the local road network and ensuring that access is safe for the community.

Some of the key safety activities the NHVR is focused on; include:

- Continuously improving the way we collect and use intelligence to embrace new and more effective approaches to target the greatest safety risks.

- Encouraging the development of the safety capabilities of industry and the broader supply chain though the practical guidance and engagement.

- Administration of the Heavy Vehicle Safety Initiatives program, which funds initiatives that deliver safety benefits for the heavy vehicle industry and other road users. Some of the key campaigns are focused on improving interactions between trucks and cars, including the *"We need space, to keep you safe"* campaign.

- Recognition of modern approaches and technology that deliver improved safety outcomes, including better approaches to fatigue management and use of safer and more productive vehicles on our road network.

A key area where the NHVR believes it can work collaboratively with our state and local road managers is around the increased adoption of safer and more productive vehicles on our road network, in particular Performance Based Standards (PBS) vehicles.

The PBS scheme is focused on innovative vehicle design and the performance of the vehicle, rather than its prescriptive dimensions. PBS vehicles have been found to be involved in 46 per cent fewer major crashes, when compared with their conventional equivalent.

The NHVR believes that this scheme creates a safer environment on our roads and would also aid government strategic planning bodies in pursuit of increased safety deliverables and community asset protection.

Forward planning on road infrastructure incorporating this scheme will enhance the contribution to and strengthen Local Government Road Safety Programs and play a significant part in road trauma reduction outcomes.

Outlined below is further information on the PBS scheme for the committee's reference.

PBS benefits to the community

The PBS scheme allows heavy vehicle operators to use innovative and optimised vehicle designs to achieve greater productivity and improved safety, while reducing the impacts on the environment and road infrastructure.

The PBS Marketplace Review released in 2018 by the National Transport Commission (NTC) highlighted that PBS vehicles are involved in 46 per cent fewer major crashes per kilometre travelled than conventional vehicles and improve productivity by an average of 15 to 30 per cent.

PBS vehicles also deliver substantial environmental and community benefits, including savings of an estimated 173 million litres of fuel and approximately $107 million in road maintenance expenses in 2018.

According to Australia's PBS fleet report (NHVR and ARTSA, 2018), PBS vehicles have a median age of less than four years, compared with more than 12 years for the entire heavy vehicle fleet. This younger PBS fleet has considerable advantages, including better safety equipment and fewer maintenance demands compared with older vehicles.

PBS vehicles are assessed against 16 stringent safety standards and four infrastructure standards to ensure they are safe and fit for use. Every vehicle combination is assessed against these standards by an authorised PBS Assessor via computer simulation or physical testing.

Encouraging uptake of PBS vehicles

In Australia, more than 75 per cent of non-bulk domestic freight is transported by road. With population growth expected to reach 30 million by 2030, the national freight task will continue to grow. The challenge for the heavy vehicle supply chain is to ensure goods are transported in the most cost-effective manner, thereby staying competitive.

PBS combinations have the capacity to transport more freight per trip, therefore reducing the total number of heavy vehicles on our roads. Fewer trucks on our roads means road users have less exposure to heavy vehicles, reducing the risk of crashes, lowering potential road trauma incidents and creating safer roads for everyone

Despite the improved safety and productivity benefits that PBS vehicles deliver, access for these vehicles is still a major barrier to their uptake. This was also confirmed by the National Transport Commission (NTC) in its recent PBS Marketplace Review.

At present, only PBS truck and dog combinations are provided widespread network access under a notice, which has resulted in a large number of these vehicles being commissioned, when compared to other types of innovative vehicles (for example 1069 truck and dogs were approved in 2017, compared to 269 B-double PBS combinations).

The success of PBS truck and dog combinations has shown that when access restrictions and uncertainty are removed, a safer and more efficient PBS combination becomes the first choice of vehicle for industry.

Policy changes to improve access

We have a collective responsibility to ensure national and local policies better support the uptake of safer and more productive vehicles.

A number of key changes can be made now to improve PBS access:

- Immediately expanding PBS road networks to at least those roads under which corresponding, non-PBS heavy vehicles can already operate under notice, including:
    - All PBS Level A road networks (which limit PBS heavy vehicle lengths to those agreed nationally as being equivalent to corresponding, non-PBS variants)
    - PBS Level B road networks (which incorporate the same performance/ safety standards as for PBS Level A heavy vehicles and networks - but provide an incremental increase in vehicle length limit).

Further medium and long term reform that will improve access and the uptake of PBS vehicles require the amendment of the *Heavy Vehicle National Law*. The NHVR's view on the long term reform of PBS is outlined in the NHVRs Vehicle Standards and Safety submission to the Heavy Vehicle National Law Review.

The NHVRs full submission is available online at https://www.nhvr.gov.au/files/201909-1118-nhvr-vehicle-standards-safety-submission.pdf

Corroborating literature.

1. The National Transport Commission released a policy paper in May 2018 titled *"Reforming the Performance-Based Standards Scheme"*. In their conclusion and analysis one of the key findings was the positive benefits to road safety.

   The below section is the extract from the NTC policy paper.

   "Safety Transport-related injuries are estimated to cost $6.6 billion per annum, including loss of earnings, family and community losses, pain and suffering, vehicle damage and insurance administration.

   Road transport generates the majority of accidents and the highest costs of all transport modes in Australia (ABS, 1997). The road toll continues to be a major concern for the community. It also directly impacts on business and its related costs.

   The freight and trucking industry recognises the link between productivity and safety, and is beginning to take on more sustainable practices. Investment in driver safety technology reduces fatigue and encourages take-up in employment. This reduces expensive turnover costs, workers' compensation, sick leave and mental health leave.

   The PBS scheme offers industry a way to invest in new technology, such as ABS and telematics, that better protects its drivers and assets. The PBS scheme offers industry the chance to trial this technology before it is regulated into prescriptive standards. While we can't know what technology will be developed in the future, an efficient PBS scheme means we can prepare for it now."

   Link to NTC policy paper: https://www.ntc.gov.au/sites/default/files/assets/files/NTC-Policy-Paper%20-%20Reforming-the-PBS-scheme.pdf

2. The following extract from the 2014 Austroads research report "Potential HPV Fatality and Insurance Savings 2011 – 2030" indicate the decrease in fatalities with high performance vehicles.

   "In road transport, trips and kilometres travelled carry an associated risk of collision, breakdown, hospitalization or even fatal injury. Often different levels of kilometres travelled, the vehicle configuration used, the cargoes carried, and even specific roads, and road types, will be reflected in different insurance premiums. The most straightforward methodology for calculating accident savings is through estimating the reduction in kilometres travelled. As cited in Section 3, BITRE calculates fatal accident rates by truck types in Australia. With this accident rate, it is possible to estimate what fatality savings can be expected for every 100 million kilometres of travel saved.

   Fatal Accident rates per 100 million km travelled by truck configuration Truck Type Fatalities per 100m kilometre (Sept 2012)

   Rigid Trucks 1.0

   Articulated 1.8

   HPV 0.3

   Source: BITRE (Pers Comm) Note 1: ILI Operator Survey calculation.

   Using the same methodology that is described in NTC 2010, the safety gains arise through the kilometres that are saved by adopting HPVs. Insurance premiums are most often kilometre dependant and therefore a reduction of kilometres also flows through to an expectation of lower accident incidents.

   The current value of life as defined by Austroads 2012, is $1.7m, which is possibly a conservative value when compared to what other agencies use. NTC 2010 used a statistical value of life, valued at $3.5m per fatality, as directed at that time, by the then Department of Finance and Deregulation. Other State agencies use values considerably higher than this figure, in some cases up to $6.9 million per fatality.

   This report, however, conservatively uses a low value of life. It can be argued for HPVs that urban fatalities might be less common where pedestrians, cyclists etc are involved. However, as larger vehicles also equals greater impact momentum it might also be argued that higher speeds and highway impacts might be more severe and lead to a greater number of fatalities on a per incident basis.

At the current time the only statistic available reflecting a fatality involving an HPV is presented in Table 5.1. All calculations of life savings have been done with the current unadjusted published fatality rates per 100 million kilometres produced by the BITRE. If this incident rate were to increase as the population of HPVs increases the application of a lower value of life will still generate a conservative safety benefit in this analysis. The three productivity scenarios examined in Section 4, deliver different kilometre savings for the high, medium and low scenarios examined. Using these accident rates and kilometre savings

Total HPV Fatality Savings Total HPV Fatality Savings = (Fatality Rate /(100mkm) x 100m km saved) The likely scenario emerging from the Scenario 2, whereby the major interstate routes will be opened is that ***96 deaths will be saved over the 20 year period between 2011 to 2030. "***

Link to Austroads research paper: https://austroads.com.au/publications/freight/ap-r465-14/media/AP-R465-14_Quantifying_the_Benefits_of_HPVs.pdf

The NHVR thanks the committee for their continued advancement of road safety initiatives and looks forward to working with the government and the parliament on all future road safety endeavours.