



EXPERT PANEL CONSULTATION ON LOW COST ABATEMENT

AUSTRALIAN TRUCKING ASSOCIATION SUBMISSION 24 OCTOBER 2019

1. About the Australian Trucking Association

The Australian Trucking Association and its member associations collectively represent 50,000 businesses and 200,000 people in the Australian trucking industry. Together we are committed to safety, professionalism and viability.

2. Summary of recommendations

Recommendation 1

The Australian Government should focus the policy framework for reducing transport emissions by incentivising business-as-usual decisions to reduce emissions, including for smaller operators.

Recommendation 2

The Australian Government should reduce the regulatory burden of the safeguard mechanism on transport operators, in-line with consultation of those operators.

Recommendation 3

The Australian Government should prioritise delivery of a national HPFV network, to reduce the emissions of the road transport task and incentivise the purchase of newer heavy vehicles with the latest emission standards.

Recommendation 4

The Australian and state and territory governments should review and amend Australian Design Rules and in-service vehicle regulations to enable greater use of more fuel-efficient heavy vehicle solutions.

Recommendation 5

The Australian and state and territory governments should implement a width exemption for aerodynamic devices, such as Airtabs, to allow trucks to incorporate more fuel-efficient heavy vehicle solutions.

Recommendation 6

The Australian and state and territory governments should increase heavy vehicle width to 2.6 metres in-line with international standards. Proposals to reduce lane widths should not be implemented.

Recommendation 7

The Australian Government should amend the *Fuel Tax Act 2006* to remove the 1 January 1996 threshold, so that every heavy diesel vehicle used on public roads must meet a maintenance or test criteria to be eligible for fuel tax credits.

Recommendation 8

The Australian Government should encourage state and territory governments to partner with industry to develop local solutions for reducing emissions, congestion and regulatory burdens on efficient road transport.

3. Trends in transport emissions

In April 2019 the Emissions Reduction Assurance Committee (ERAC) review discussion paper of the transport method for crediting emissions under the Emissions Reduction Fund (ERF) highlighted projected trends in transport emissions from 2018 out to 2030.

The projections indicated that cars and light commercial vehicles contributed 60 per cent of transport emissions in 2018, but domestic shipping, aviation, railways, rigid and articulated trucks are projected to contribute the bulk of the growth in emissions to 2030.

Of the projected growth rates, the ATA notes that articulated trucks are projected to have the smallest growth rate (15.4%) compared to rigid trucks (22.2%), railways (25%), domestic aviation (33.3%) and domestic shipping (50%).

For cars (projected growth rate of zero per cent to 2030) and light commercial vehicles (6.3%), it would appear that these projections rely on improvements to the emissions performance of these sectors to achieve minimal growth in emissions whilst at the same time the number of vehicles is likely to increase.

4. Useability of the transport method and the Emissions Reduction Fund / incentivising business as usual activities

The central recommendation of the ATA submission to the ERAC review of the transport method was that the real focus for incentivising abatement activities should be establishing a broader policy framework to bring forward business as usual activities that reduce emissions.

Examples provided in the ERAC review of eligible activities under the transport method include replacing or modifying vehicles, changing energy sources and changing operational practices.

These decisions are primarily an investment decision for business that is influenced by factors including the expected growth of their business, access to finance and taxation policies. The trucking industry is also complex, dominated by small businesses operating in a variety of industry sectors, routes and business structures.

Determining an eligible abatement activity, which is required to not be a business as usual investment, is a difficult process with a high regulatory burden. Additionally, incentives that are limited to businesses which are covered by the safeguard mechanism effectively do not apply to most of the trucking industry.

Even where large operators have sought to use the Emissions Reduction Fund to offset large vehicle fleet purchases, the cost and effort required to obtain the extensive historical data to support an application is prohibitive.

Safeguard mechanism

The safeguard mechanism applies to an extremely small number of large trucking and transport businesses and captures only around 10 per cent of emissions from the road freight sector. The policy results in a high regulatory burden for the small number of large operators captured, which will increase further as businesses move to production-based variables for reporting under the scheme.

Additionally, there appears to be no policy benefit from the mechanism. It applies a high regulatory burden with limited, if any, impact on transport emissions.

The ATA understands that the Australian Government is in direct consultation with transport operators impacted by the safeguard mechanism and recommends that this process continue, with the aim of reducing the regulatory burden on businesses.

Recommendation 1

The Australian Government should focus the policy framework for reducing transport emissions by incentivising business-as-usual decisions to reduce emissions, including for smaller operators.

Recommendation 2

The Australian Government should reduce the regulatory burden of the safeguard mechanism on transport operators, in-line with consultation of those operators.

5. Fuel and freight vehicle efficiency

Fuel is a significant cost input in running a heavy vehicle and is also one of the largest sources of road transport emissions. Ultimately reducing fuel use, and reducing emissions, is already a business priority in the road transport sector.

The ERF will never lead to significant emissions reduction in road freight transport unless governments address the regulatory burdens that are blocking trucking operators from investing in more fuel-efficient solutions to moving road freight. This includes:

- Access barriers for more productive trucks
- Vehicle standards barriers on more fuel-efficient solutions.

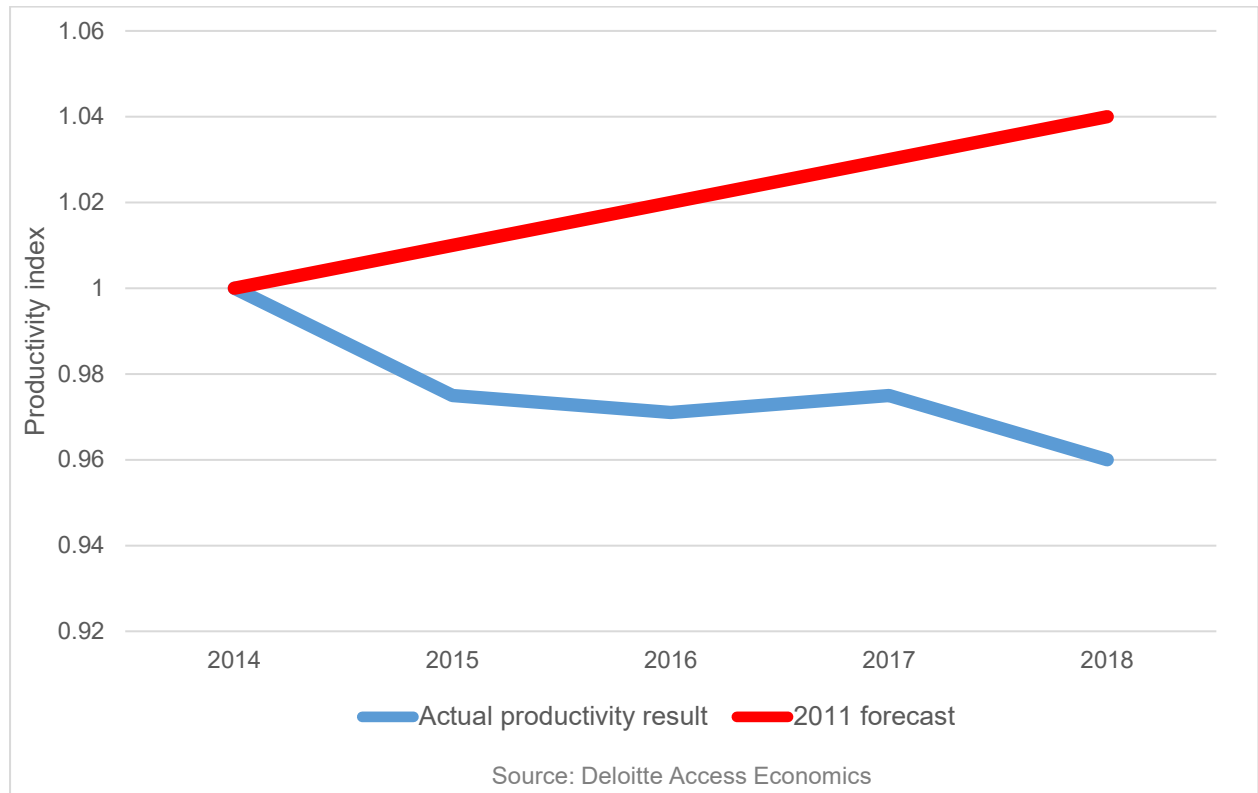
Access barriers for more productive trucks

Enabling road freight productivity growth is critical to reducing road transport emissions, especially for articulated trucks. Between 1971 and 2007, trucking industry productivity increased six-fold due to the uptake of high productivity vehicles like B-doubles. It has been estimated that in the absence of productivity improvements over this period that nearly 150,000 articulated trucks, in addition to the 70,000 registered for use in 2007, would have been required to undertake the 2007 articulated truck freight task.¹

¹ Bureau of Infrastructure, Transport, and Regional Economics, 2011, *Truck productivity*, xiv

However, this productivity growth has not been maintained. In 2011, it was predicted that the implementation of the then proposed Heavy Vehicle National Law would deliver up to \$12.4 billion in economic benefits.² Figure 1 shows the reality. The productivity of the transport, postal and warehousing sector has fallen steadily since 2014.³

Figure 1: forecast and actual changes to industry productivity, 2014-2018



Building on the success of the B-double, the Australian Government should deliver a high productivity freight vehicle network (HPFV) to enable as of right access for HPFV vehicles, including modular A-doubles up to 35 metres.

HPFVs deliver important productivity, safety and environment benefits. Austroads has reported that high productivity freight vehicles:

- demonstrated **76 per cent fewer accidents** than would be the case for conventional trucks, and a 63 per cent reduction in major accident incidents on a weighted fleet basis
- operational HPFV fleets, due to the use of newer vehicles, are reported to **make use of the latest emissions standards**
- HPFVs are expected to **save 5.9 million tonnes of diesel by 2030**
- through the use of lower numbers of trucks, HPFVs **reduce impacts on the community from noise, emissions, accidents and lead to lower pavement impacts on the road network.**⁴








² NTC, [Heavy Vehicle National Law Regulation Impact Statement](#). September 2011. 16

³ Deloitte Access Economics, [Economic benefits of improved regulation in the Australian trucking industry](#). Report commissioned by the ATA, March 2019. 21.

⁴ Austroads, 2014, Quantifying the Benefits of High Productivity Vehicles, pi.

The reductions in emissions and the number of truck trips required to move a 1000 tonne transport task is illustrated by the following table.

High Productivity Freight Vehicle configurations

Configuration	Nominal Payload (tonnes)	Payload Equivalency	No Trips to transport 1000 tonnes (GML)	CO2 (tonnes) emitted per 1000 tonne transport task	Road space equivalent (kilometres) with 3 second spacing
 19metre (24 pallet) Semi-trailer	24.04	1.00	42	28.78	4.3
 26metre 36 pallet B-double	38.84	1.62	26	23.48	2.84
 PBS Level 2A truck and dog (8x4 with 6 axle dog)	39.92	1.66	25	25.10	2.73
 PBS A-double	48.73	2.03	21	20.53	2.38
 35metre Modular B-triple	52.35	2.18	19	19.14	2.25
 36.5metre Type 1 Road Train	51.43	2.14	19	19.43	2.28
 36.5metre AB-triple	66.7	2.77	15	16.56	1.8



To enable this more sustainable approach to moving Australia's freight task, leadership is required from the Australian Government to deliver a national HPFV network. This network should provide:

- As of right access for modern HPFV combinations that do not require individual permits for each trip,
- Access to major and important freight routes,
- Adequate rest area and coupling/de-coupling bay facilities,
- Integration with local land use planning to integrate the network with industrial and logistics land, protect current and future road corridors and enable the 24-7 operation of the network, and
- Upgraded bridges and other infrastructure constraints to enable use of the network.

The Australian Government already has the policy mechanisms to deliver this network. The 10-year infrastructure funding pipeline, Roads of Strategic Importance program and the commitment to fund corridor strategies to guide road funding on some of these corridors provide a framework by which the Government can:

- Set HPFV access objectives on important road corridors,
- Identify infrastructure gaps to delivering these objectives and development an investment plan to upgrade the corridor, and
- Set a long term, stable funding commitment to upgrade these routes.

Access to a national HPFV network and its productivity benefits would also incentivise the purchase of newer heavy vehicles, with the latest emission standards.

Recommendation 3

The Australian Government should prioritise delivery of a national HPFV network, to reduce the emissions of the road transport task and incentivise the purchase of newer heavy vehicles with the latest emission standards.

Vehicle standards barriers on more fuel-efficient solutions

Projected light vehicle emissions reductions, comparative to the increasing fleet size, illustrate that a mixture of technology improvements and their uptake by road users through individual purchasing decisions can deliver longer term benefits for reducing the growth of transport emissions.

Enabling and incentivising individual purchasing decisions that reduce emissions for heavy vehicles should be the cornerstone of the Government's emissions reduction strategy for the sector. This should include fuel efficiency solutions.

The fuel efficiency of heavy vehicles can be improved through amending vehicle design rules to allow vehicle technologies which improve fuel economy. For example, aerodynamic devices such as Airtabs would allow heavy vehicles to increase fuel economy by up to 6 per cent. However, current Australian Design Rules (ADR) prevent their use due to width requirements. Similarly, the use of single wide tyres would provide reductions in fuel use.

Vehicle design rules should also be amended to allow an increase in vehicle width to 2.6 metres, in line with international and European standards. An increase in allowable width would particularly benefit operators of hard-walled refrigerated trucks, which could have thicker insulated walls without loss of payload. In 38 degree outside temperatures, these thicker walls would reduce heat gain by 36 per cent and deliver a fuel saving of 2,500 litres per typical refrigerated vehicle per year.⁵

However, governments have shown limited commitment to delivering international harmonisation on width. Austroads, the research organisation owned by Commonwealth and state transport departments, recently conducted a study on heavy vehicle dimensions which is reported to have recommended that 2.6 metre wide trucks should be considered in the future. This recommendation is, according to the ATA's understanding, similar to what Austroads recommended 27 years ago in another study. Austroads have also refused to make this study available to industry.⁶

Additionally, the Grattan Institute have recommended adopting narrower road lanes in urban areas. This proposal appears to have limited regard to urban road networks needing to do more than move light vehicles around and has no regard for the emissions reduction potential, especially for refrigerated vehicles, of implementing a 2.6 metre width for heavy vehicles.⁷

⁵ Refrigerated Warehouse and Transport Association, *Submission to the National Road Transport Commission on a proposal that 2.6m trailers be permitted for the carrying of temperature controlled commodities*, July 1998, 3.

⁶ ATA, 25 September 2019, [It's back to the future with Austroads width study](#), ATA media release.

⁷ Grattan Institute, 2019, [Why it's time for congestion charging](#), 21.

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6. Fuel Tax Credits reform

Regular maintenance is the key to ensuring that vehicles continue to meet emission standards. For example:

- the 2004 energy white paper reported that repairing poorly maintained diesel vehicles could reduce their particulate emissions by 45 per cent.⁸
- case studies in the US mining industry of the relationship between diesel engine maintenance and exhaust emissions found that effective maintenance could reduce CO emissions by 65 per cent and PM emissions by 55 per cent.⁹
- a test of 168 diesel cars (ranging from pre-Euro to Euro 4 emission standards) found that 75 per cent had emission faults. Performing maintenance on a Euro 4 vehicle with multiple induced defects reduced all its pollutant emissions except carbon monoxide; its particulate emissions were reduced by 70-80 per cent over all driving cycles. The research found no correlation between the age of the diesel vehicles in the sample tested and the number of emission defects.¹⁰

When it came into force, the *Fuel Tax Act 2006* included a powerful incentive for truck operators to maintain their vehicles.

Under the Act, businesses that operate trucks with a gross vehicle mass (GVM) of more than 4.5 tonnes on public roads can claim fuel tax credits for each litre of fuel they buy for use in those vehicles.

Under s41-25(1) of the Act, vehicles used on public roads must meet one of four environmental criteria to be eligible for the credits. These criteria are:

- (a) the vehicle was manufactured on or after 1 January 1996, the commencement date of the ADR 70/00 (Euro 1 and equivalent) emission standards for all new heavy vehicles,

⁸ Australian Government, *Securing Australia's energy future*, 2004, p103.

⁹ McGinn, S. *The relationship between diesel engine maintenance and exhaust emissions*, Noranda Technology Centre for the Diesel Emissions Evaluation Program (DEEP), p8.

¹⁰ Pillot, D et al. *Impacts of inadequate engine maintenance on diesel exhaust emissions*, Transport Research Arena, 2014, Paris.

- (b) the vehicle is registered in an audited maintenance program accredited by the Transport Secretary,
- (c) the vehicle meets Rule 147A of the Australian Vehicle Standards Rules 1999 (ie: it has passed a DT80 in-service emissions test within the last two years), and
- (d) the vehicle complies with a maintenance schedule endorsed by the Transport Secretary. The endorsed maintenance schedule is not onerous.¹¹

When the Act came into force, 61 per cent of the trucks registered in Australia were manufactured before 1996, and therefore had to meet one of criteria (b) – (d) to be eligible.

By 2016 this had fallen to 33 per cent of the trucks in service. As a result, the majority of the trucks in Australia do not have to meet any maintenance requirement or test to be eligible to receive fuel tax credits.

The original incentive for regular maintenance included in the *Fuel Tax Act 2006*, critical to maintaining emissions standards in trucks, has been diminished by the passage of time and will only continue to decrease without legislative change.

Given the importance of maintenance to achieving emission standards, the ATA proposes that the 1 January 1996 threshold (criteria a) should be removed entirely. Every heavy diesel vehicle used on public roads should be required to meet one of the three maintenance/test criteria to be eligible for fuel tax credits.

Recommendation 7

The Australian Government should amend the *Fuel Tax Act 2006* to remove the 1 January 1996 threshold, so that every heavy diesel vehicle used on public roads must meet a maintenance or test criteria to be eligible for fuel tax credits.

7. Urban congestion

Both regulatory and congestion burdens placed on urban road freight place upwards pressure on road freight emissions. Research has highlighted the importance of considering the effect of congestion on emissions in logistics networks, in particular due to congestion impacting on travel speed. Additionally, congestion can cause inefficiencies from less efficient distribution decisions (such as less customers serviced per trip) and additional kilometres travelled to avoid congested areas.

Regulatory restrictions, such as time curfews, can also add to these inefficiencies.

ATA member associations have taken the lead on addressing these urban challenges in specific cities, as illustrated by the following examples:

- Western Roads Federation have established the WRF Metro Logistics Group which unites different industry sectors and encourages engagement across various government agencies. This includes enabling research to analyse urban road freight data, which will then provide a better evidence base for decision making. WRF are also exploring options for encouraging cleaner commercial vehicles, including light commercial vehicles, to be incentivised with greater access or reductions in curfew restrictions.

¹¹ Department of Transport and Regional Services, *Fuel tax credit for heavy diesel vehicles: guidelines for satisfying environmental criteria*, 2006, pp7-9.

- In Melbourne, the Victorian Transport Association has engaged with local communities to develop the proposed Cleaner Freight Initiative. This proposal would require better trained drivers and greater uptake of low-emission heavy vehicles to enable greater access for curfew-free times to specific routes.

Additionally, policy proposals to respond to and mitigate urban congestion must recognise the reality of freight movements, the need for wider trucks to reduce emissions in refrigerated vehicles and more productive trucks to move more freight with less trucks.

The Grattan Institute's recommendation to implement congestion charges in Sydney and Melbourne (with higher charges for heavy vehicles) assumes that heavy vehicles take up more space on the road, accelerate more slowly and thus cause more congestion. But this analysis does not appear to account for how many truck movements would be required if the urban freight task was to be moved in smaller, light commercial vehicles.¹²

Recommendation 8

The Australian Government should encourage state and territory governments to partner with industry to develop local solutions for reducing emissions, congestion and regulatory burdens on efficient road transport.

¹² Grattan Institute, 2019, [Right time, right place, right price](#), 14.