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Office of the
Director-General
Department of
Transport and Main Roads

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Mr Martin Stokie and Mr Barry Sterland PSM
Commissioners
Productivity Commission
ncp@pc.gov.au

Dear Mr Stokie and Mr Sterland

Thank you for the invitation on 14 November 2025 to provide a submission on the impacts of heavy vehicle reform under the National Competition Policy.

I acknowledge the important role that heavy vehicle productivity plays in Queensland prosperity.

I am pleased to share the enclosed submission prepared by the Department of Transport and Main Roads.

The submission provides background on heavy vehicle reform in the Queensland context and responds to the information requests made in the Call for Submissions.

Thank you for the opportunity to provide input. We look forward to the findings of the Productivity Commission's report.

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Heavy Vehicle Reform

Department of Transport and Main Roads
Submission to the Productivity Commission

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Introduction

The Department of Transport and Main Roads (TMR) welcomes the opportunity to provide a submission to the Productivity Commission on the impacts of the heavy vehicle productivity reform package being progressed through the National Competition Policy (NCP) reforms.

Safe, timely and efficient delivery of freight is essential to Australian prosperity. This is especially true in Queensland, where over 20% of state product is goods for international export – the vast majority of which come from farms and mines in regional areas. Heavy vehicles are central to the freight task and improvements in heavy vehicle productivity will support the growth of Queensland businesses and the prosperity of all Queenslanders.

The reforms under the NCP have the potential to significantly improve heavy vehicle productivity. On 28 November 2025, state, territory and Australian Treasurers finalised the 2025 update to the NCP Federation Funding Agreement Schedule (FFAS) which includes the heavy vehicle productivity reform package.

However, implementing the reforms will present challenges that require careful consideration, especially of their implications for road maintenance expenditure.

Road maintenance in Queensland is largely funded by the Queensland Government. Of the $5.6 billion for network maintenance outlined in the Queensland Transport and Roads Investment Program (QTRIP) 2025-26 to 2028-29, only $600 million is funded by the Australian Government, directed toward the National Land Transport Network (NLTN). Even on the NLTN, the Queensland Government has played a significant role in funding maintenance, contributing around 51% of the total cost in the 10-years to 2023-24. While this investment is critical to supporting national connectivity, it inevitably decreases funding available for the rest of the state-controlled network.

Increased road access for larger, heavier vehicles will place additional strain on road infrastructure and increase the need for costly maintenance. To ensure the success of these heavy vehicle reforms, it will be vital that the Australian Government works closely with states and territories to ensure that road maintenance funding and funding under the NCP is fair, equitable and proportionate to each state's network size and characteristics.

It will be essential that the vast differences between the state and territories road networks are considered. Queensland faces special challenges building and maintaining roads. The network is diverse and expansive connecting cities, towns, farms and mines across an area twice the size of New South Wales and seven times the size of Victoria; Tropical cyclones and floods impose higher costs of building for

resilience and repairing and maintaining roads in their wake; And Queensland's large agriculture industry transports large volumes of freight on roads and presents the unique challenges of maintaining and operating stock routes.

The following sections respond to each proposal listed in the PC's Call for submission. Each section includes background information on the proposal and responses to the relevant questions posed by the PC.

Reform package proposals

Increasing heavy vehicle road access to reduce emissions and increase productivity

TMR recognises the critical role both road and rail play in freight movement and whilst supporting the principle of greater heavy vehicle access to increase productivity - allowing more freight to be carried by fewer vehicles - it needs to be targeted and not at the expense of freight that can be appropriately transported by rail. It must also be balanced against road safety outcomes, additional wear and tear on roads resulting in higher maintenance costs, the reality of the state-controlled network funding program and infrastructure condition.

TMR is already experiencing the impact of inadequate funding over the past 10 years for road maintenance on asset degradation, requiring some access restrictions to be imposed. For example: Dogwood Creek Bridge on the Warrego Highway has limits for oversize and over mass loads necessitating a 142km detour for affected vehicles; Cunningham Highway, and several bridges Bremer River, Barron River Bridge, and Raglan Bridge currently operate under a mix of restrictions including speed limit reductions, passing restrictions, driven line restrictions and restrictions to oversize and over mass permit vehicles.

With strategic investment and targeted enhancements to critical infrastructure and transport corridors, there is a significant opportunity to improve access for higher productivity vehicles, ensuring both safety and operational efficiency. Conducting comprehensive assessments to determine the necessary investment levels and prioritised corridors will be essential. This approach has the potential to unlock substantial productivity gains and deliver widespread economic benefits for Queensland and Australia.

Notably, bridges often represent the primary constraint on many routes, limiting opportunities for increased productivity. Directing increased investment towards upgrading and strengthening these key bridges across the network will create new opportunities to enhance access, expand productivity, and drive economic growth.

Permitting higher productivity heavy vehicles on higher volume roads increases the social costs of fatal and serious injury accidents on the network, draw freight away from rail and place pressure on the Australian and Queensland governments to increase maintenance funding and deliver road upgrades that are not currently funded.

Reforms to heavy vehicle mass and dimensions limits that support industry productivity are the subject of ongoing work and collaboration between jurisdictions.

Higher mass limits, whether applied to all heavy vehicles or restricted to low- and zero-emission vehicles, will inevitably increase road wear, infrastructure maintenance costs, and shift freight volumes away from rail. The scale of these impacts will depend on the level of mass increase and industry uptake, but they will place additional strain on already underfunded maintenance programs.

TMR has undertaken a preliminary analysis of mass increases focused on road and transport infrastructure impacts for state-controlled roads. This analysis found that the impacts of increasing mass limits for low and zero emission heavy vehicles result in 60% additional annual pavement costs. Impacts on local government-controlled roads and infrastructure were not included in TMR's analysis, though these networks are also likely to be affected.

Appropriate reforms to assess under this proposal, e.g. increases in general mass limits under the HVNL

Several reforms and increases to mass limits have been implemented to date:

- Queensland implemented increases in mass limits for heavy vehicles complying with the ADR 80/04 (Euro VI) emissions standard from 1 November 2024.
- Queensland will implement the agreed Heavy Vehicle National Law (HVNL) productivity reforms when they commence nationally, anticipated for mid-2026, which include:
    - increasing general mass limits to be equivalent to concessional mass limits (approx. 5% increase)
    - increased length for general access vehicles from 19m to 20m including 20m b-doubles (subject to swept path controls)
    - increased general access vehicle height from 4.3m to 4.6m (subject to roll stability controls).

Further general mass limit increases would be challenging to accommodate within current funding arrangements given the increase in required maintenance costs already occurring as the result of the above increases in mass limits.

The Queensland state-controlled network is one of the most productive across Australia based on volumes of freight vehicles, tonnes of freight and the size of the vehicles moving this freight.

Additional cost of road wear and infrastructure maintenance

An increase to the mass limits of vehicles - whether all HV or LZEHV only - will result in increased road wear and infrastructure maintenance costs. The extent of the increased costs will depend on both the mass limit increase and the uptake of these vehicle types.

Governments have agreed to reforms under the HVNL to improve freight efficiency by enabling greater access for higher productivity heavy vehicles, increasing allowable mass and dimensions, and streamlining performance-based standards.

In 2024, the National Transport Commission released a preliminary assessment of the costs and benefits of increasing heavy vehicle mass and dimension limits for general access. The analysis found strong potential for productivity gains but acknowledged that reforms would increase road funding and maintenance requirements, with further work needed to quantify infrastructure costs.

TMR considers that current economic analysis underestimates the infrastructure and safety impacts of the proposed reforms. For example, TMR undertook research to assess the impacts of increased loading on Queensland pavements to assess the impact of both an increase to general mass limits (GML) to match concessional mass limits (CML) and an increased uptake of low and zero emission heavy vehicles. Both scenarios result in increased axle loading. The findings from this research indicated that under an unconstrained budget, the impacts of the increased axle loading resulted in an increase in annual pavement costs of up to 60%, factoring in accelerated surface deterioration and more robust and costlier treatment requirements. This analysis excludes the additional cost impacts for bridge infrastructure maintenance and monitoring.

A similar review is underway by Austroads; Future Freight Vehicles and Buses Implications for Road Managers. The approach of the study differs to TMR's research but broadly focuses on the impacts and benefits of increasing steer and drive axle masses. No findings have been released yet. More information about the study is available at https://austroads.gov.au/projects/project?id=NEF6392

Intersection with other infrastructure barriers necessary to take up reformed regulation

Increasing road access for High Productivity Freight Vehicles (HPFVs) must account for existing infrastructure constraints, including the capacity and condition of pavements and structures, which are impacted by the larger size and higher payloads of these vehicles.

Queensland has over 3200 structures across its state-controlled network worth $18.19 billion. Of those structures 127 bridges are classed as 'operational' bridges that have limitations and/or conditions applied to freight vehicles accessing them (not including over size, over mass), such as speed, position on bridge or load limits as an active management to prevent load impacts or deterioration. Replacement value of these structures is estimated at over $1 billion.

Constraints on these critical structures limit the ability to open productivity. A few examples of these key operational bridges include:

- The Bee Creek Bridge on the Peak Downs Highway is a critical route for transporting equipment that supports the mining industry in the Bowen Basin. The bridge accommodates 1,205 heavy vehicles per day, including 400 semi-trailers, B-doubles, and Type 1 road trains.
- The Bremer River Bridge (westbound) on the Warrego Highway carries over 5,800 heavy vehicles daily, with a total exceeding 31,500 vehicles per day. The bridge forms part of Queensland's principal east-west freight route, which is strategically important for both intra-state and interstate freight movement.
- The Dawson River and Dawson River Overflow Bridges on the Capricorn Highway carry 2,235 heavy vehicles per day, including 350 semi-trailers, B-doubles, and Type 1 road trains (GML), as per 2024 traffic counts. These bridges are part of a vital east-west freight route in Central Queensland, connecting coastal ports in Rockhampton and Gladstone to inland mining, agricultural, and resource regions.
- The Dogwood Creek Bridge on the Warrego Highway accommodates 1,142 heavy vehicles daily, including 550 semi-trailers, B-doubles, and Type 1 (HML) road trains. This bridge is also part of Queensland's principal east-west freight route, which is essential for both intra-state and interstate freight movement.

The extent of impact and constraint on infrastructure from increased heavy vehicle mass allowances will depend on the extent of the increase. TMR's preliminary analysis on the impact of an increase from GML2 to match CML indicated the following complications.

- Impacts to 213 at-risk bridges across Queensland resulting from the increased mass limits.

- Increasing height limits will impact existing overpass height limits. Approximately 20 overpass bridges on TMR's state-controlled network have a clearance of 4.3m or less and an additional 15 bridges will be impacted if the height of vehicles is raised to 4.6m.

Implementation issues, including how governments should apportion any increased road infrastructure costs between levels of government

The funding burden for road maintenance falls primarily on state agencies and local governments. A Commonwealth funding response is therefore essential to support productivity-enhancing reforms. It is critical that funding is aligned with road investment needs for maintaining and upgrading the infrastructure that supports freight movement.

Productivity improvements such as enabling higher mass limits and expanding access for heavy vehicles depend on increased and targeted investment to bridges, pavements, and intersections.

If funding is not directed to where these upgrades are most needed, bottlenecks remain, limiting efficiency and increasing costs for industry. A Commonwealth funding response is therefore essential to support productivity-enhancing reforms.

Availability of data on road use, the structure of the road network, and different heavy vehicle users (and user industries).

Obtaining reliable data on heavy vehicle use and asset condition is an ongoing challenge. While some datasets exist, they are often fragmented or outdated, making it difficult to accurately assess network performance and plan for future demand.

The discontinuation of the Survey of Motor Vehicle Use (SMVU) has further compounded these challenges. No suitable replacement has been identified to date, leaving a gap in nationally consistent data that was previously used to inform policy and investment decisions.

National Automated Access System

The Queensland Government has already committed to implement the National Automated Access System (NAAS), based on the Tasmanian Heavy Vehicle Access Management System (HVAMS), with an implementation project currently underway.

Establishing the NAAS will require significant effort and investment within each jurisdiction, in addition to their cash contributions to the costs of the national NAAS project team. This includes preparing for systems integration and change

management, working with the national NAAS project team on requirements for HVAMS releases and helping local governments prepare their own data and systems.

TMR has developed a new Class 1 heavy vehicle access regime. Class 1 vehicles under the regime includes low loaders, heavy load platforms and mobile cranes. The objectives of the new regime are to:

- provide industry access to the Queensland road network in a streamlined, safe and sustainable way
- improve efficiency of road manager systems and processes
- increase transparency and certainty about access for industry
- enable faster and consistent decision making by the road manager
- obtain actual road use by Class 1 vehicles through implementation of mandatory location-based telematics and integrated data analytics.

Future coordination and alignment between the states and territories

The NAAS has been developed based on the Tasmanian HVAMS. TMR is the first jurisdiction on the Australian mainland to implement the NAAS, other jurisdictions will be leveraging TMR implementation learnings to develop their own refined implementation approaches.

How best to determine which roads might be eligible for automatic access, initially and on an ongoing basis

TMR is implementing all 33,500kms of state-controlled roads, with conditions of access, into the NAAS. TMR is also working with 30 priority councils and four major trading ports to include local roads that are often used by the Class 1 heavy vehicle industry through a priority road manager/priority road approach.

This approach is based on historical permit data that shows that around 80% of Queensland's Class 1 oversize/overmass permit routes could be included in the NAAS through a relatively small proportion of the 180,000km local road network in Queensland.

The technical and administrative practicalities of scaling up Tasmania's model to the whole of Australia

As the first jurisdiction on the Australian mainland to implement the NAAS, TMR has incurred considerable costs over the past three years. In the first four years of the NAAS implementation program through to FY2025-26, TMR will have incured over $13 million in expenses.

The costs and benefits of the current access permit system borne by heavy vehicle operators

A cost benefit economic analysis was completed in July 2023, by economists HoustonKemp for TMR's proposed new access regime for all state-controlled and local government roads in Queensland. The principal elements of the new regime were:

- heavy vehicle access to infrastructure would be based upon an engineering assessment of bridge/road capacity
- Road manager access to heavy vehicle telematics to provide road use assurance and better asset management
- The adoption of NAAS for fast, free and efficient 'self service' by industry
- Better data analytics and reporting for future infrastructure investment.

The analysis considered the financial and economic costs, and the associated benefits of the new regime compared to Queensland's existing NHVR permit-based framework. Industry costs and benefits were based on information provided by TMR's Industry Working Group members.

BCRs greater than 8.62 were identified with industry the main beneficiary. The benefits were mainly due to industry being able to use NAAS for immediate road network access in lieu of time consuming and costly delays via NHVR permits.

More information can be found in the publicly available report at *https://www.business.qld.gov.au/industries/transport/heavy-vehicles/revised-class-1/benefits-costs*

Availability of data on road use, the structure of the road network, and different heavy vehicle users (and user industries).

Better understanding what types of vehicles are moving across TMR's bridges and at what frequency continues to be an important input into updating fatigue modelling of TMR's bridges, and inspection and maintenance frequency. This enables TMR to manage the network to allow sustainable access for all road uses. Better visibility and understanding of how the network is used also enables TMR to plan and invest appropriately in the network for all road users.

National Heavy Vehicle Driver Competency Framework

The National Heavy Vehicle Driver Competency Framework (NHVDCF) sets minimum competency and assessment standards for heavy vehicle drivers. The

NHVDCF is currently undergoing reform to develop a more robust framework and improve national harmonisation.

The NHVDCF reforms were agreed to in-principle in December 2023 by Infrastructure and Transport Ministers Meeting (ITMM). This in-principle endorsement was based on a findings in a Decision Regulatory Impact Statement (D-RIS) conducted by Austroads following a review of the NHVDCF. Queensland is considering implementation feasibility. The reform package proposes to strengthen the competencies that drivers are trained and tested against. It also aims to reduce administrative burden by moving knowledge-based training and assessment online.

In addition, it includes an option for faster progression than the current and ongoing tenure-based licence progression model provided there is demonstrated behind the wheel experience. Drivers will be eligible for a higher-class licence, to operate heavier vehicles, sooner if they can demonstrate a set amount of heavy vehicle driving experience or participate in a supervised program.

The NHVDCF reform package focus is primarily safety by strengthening competencies and consequently, safety, some of the requirements may lead to reductions in the total number of driversHowever, the option for faster progression to a higher licence class may unlock drivers for higher productivity vehicles, leading to productivity improvements.

It is important to note that accelerating the NHVDCF reforms will not, on its own, necessarily resolve the broader shortage of heavy vehicle drivers. While the reforms streamline licensing and allow experienced drivers to progress more quickly, they do not necessarily translate to the other elements that should be considered for skills shortages.

What are the largest hurdles for timely or accelerated implementation of these reforms

The primary focus of the NHVDCF reforms is safety and competency uplift, ensuring drivers are sufficiently skilled and competent to operate heavy vehicles safely. This will, in turn, drive productivity gains through safer and more skilled drivers.

However, accelerated implementation could risk undermining these critical safety objectives if not balanced properly. Any timely implementation of the reform should therefore be balanced by careful consideration of safety and competency outcomes.

Legislative and system changes required to support the NHVDCF reforms are likely complex and significant. Accelerating these changes without adequate consideration of their impacts risks creating implementation challenges, undermining the effectiveness of the reforms, and compromising safety outcomes.

It may be possible to include the alternative progression pathway reform element in productivity reforms on its own. However, significant policy analysis and implementation planning would still need to be completed on this reform element.

What federal, state & territory or private bodies are expected to handle the various stages and aspects of implementation

The NHVDCF is being delivered via Infrastructure and Transport Ministers Meeting (ITMM) tasking to Austroads. State-level implementation is being delivered by jurisdictional licensing authorities. Based on current administrative arrangements, Queensland's implementation of the reforms would be jointly delivered by TMR and the Department of Customer Services, Open Data and Small and Family Business (CDSB).

What timeframes are sensible for accelerated implementation of the reforms

Significant approvals and policy work, including detailed implementation planning, working through legislative issues and consideration of any funding implications, would be required for Queensland to implement the NHVDCF reforms. Practical and achievable timeframes, as such, would be subject to additional planning work.

Data relevant to quantitative estimates of productivity impacts of the reforms

While the primary focus of the NHVDCF reform package is improved road safety outcomes through uplifted driver competency, some reforms may result in overall productivity benefits.

Tracking any increase in the availability of licence-holders with heavy combination (HC) or multi-combination (MC) class licences may indicate improved supply of drivers to industry. Specifically, tracking the number of drivers that are able to take advantage of the faster pathway for licence progression that would not have been able to drive higher productivity vehicles under the existing tenure model.

However, while the primary focus of the NHVDCF is improved road safety outcomes through uplifted driver competency, the number of HC and MC class licence holders is not necessarily an indication of the overall impact of the reforms.

How best to quantify the impact of the reforms.

The productivity impacts will be difficult to quantify beyond understanding of change in number of licence holders.

Crash statistics showing the number of crashes involving heavy vehicles will be a readily available quantative measure which may indicate the impact of the safety benefits brought about by the reforms.

Barriers to availability of EV truck charging infrastructure

Regulatory barriers to the roll out of charging infrastructure for battery heavy powered EV trucks

It is possible that the barriers to implementation are also financial, such as the relatively high costs for large-capacity grid connections. Metropolitan areas may find connections easier, but rural and remote areas could face greater challenges, especially where long-distance refuelling is needed.

Policy issues affecting the long-term implementation of an effective network of publicly accessible EV truck charging infrastructure.

EV truck adoption will depend on costs, suitable models, and accessible charging infrastructure. Market dynamics could affect the commercial viability of electric freight and impact EV truck charging infrastructure uptake. In order for EV freight to compete, costs per kilometre needs to stay lower than those of internal combustion engine (ICE) fleets.

EV-specific operational factors, such as charging time, will also need to be considered in the context of heavy vehicle driver work and rest requirements and fatigue management. Extended charging durations may interact with regulated maximum driving hours, minimum rest breaks, and scheduling practices under industrial instruments and other regulatory frameworks, including the Heavy Vehicle National Law. If charging cannot be reliably aligned with mandated rest periods, EV trucks may experience increased idle time and reduced productivity, ultimately undermining commercial viability and delaying electrification. The alignment of rest breaks and charging times may therefore require consideration in both the planning of charging infrastructure and the design of fatigue-management regulation.

Curfews for EV trucks

TMR does not impose specific amenity-related heavy vehicle restrictions. Heavy vehicle operational noise is not only from vehicle engines. Generally, these restrictions are imposed by local governments.