Submission to the Australian Productivity Commission
Inquiry: Impacts of Heavy Vehicle Reform
Submitted by: Truck Industry Council (TIC)

9th January 2026

The Chair, Australian Productivity Commission

Dear Commissioners,

The Truck Industry Council (TIC) welcomes the opportunity to provide this submission in response to the Productivity Commission's request for advice on the impacts of heavy vehicle reform aimed at increasing transport productivity and supporting the uptake of Heavy Zero Emissions Vehicles (HZEVs).

Road freight underpins Australia's economic performance, supply-chain resilience, and cost-of-living outcomes. Yet road freight productivity has stagnated for more than two decades, while Australia's truck fleet has aged to levels that are now among the highest in the world. These trends represent a growing structural constraint on national productivity, safety performance, emissions reduction, and freight reliability.

This submission draws on TIC's *National Truck Plan 2025* and associated *Discussion Papers* on fleet age and productivity. It advances the central proposition that productivity reform, fleet modernisation, improving road safety outcomes and decarbonisation are mutually reinforcing objectives and should be pursued as an integrated reform agenda.

TIC submits that a coordinated package of reforms—focused on improved road access, targeted mass and axle concessions, regulatory reform to enable HZEV infrastructure, and modernised operating conditions—can unlock substantial productivity gains while accelerating the adoption of safer, cleaner, greener vehicles.

TIC stands ready to assist the Commission and Government with further technical input as this work progresses.

Yours sincerely,

Anthony J McMullan PhD
CEO

Submission to the Australian Productivity Commission

Impacts of Heavy Vehicle Reform to Increase Transport Productivity and Support Heavy Zero Emissions Vehicles (HZEVs) Uptake.

Submitted by: Truck Industry Council (TIC)

Executive Summary

Road freight underpins Australia's economy. Around 80 per cent of non-bulk freight is moved by road, making heavy vehicles an essential input into almost every sector of economic activity. Yet despite this central role, road freight productivity has stagnated for more than two decades while the national truck fleet has aged to levels that are among the highest in the world.

This submission responds to the Productivity Commission's request for advice on a heavy vehicle productivity reform package aimed at increasing transport productivity for all heavy vehicles and supporting the uptake of Heavy Zero Emissions Vehicles (HZEVs). Drawing on the Truck Industry Council's National Truck Plan 2025 and associated Discussion Papers on fleet age and national productivity, the submission argues that productivity reform, fleet modernisation, vehicle safety and decarbonisation must be treated as mutually reinforcing objectives rather than competing policy goals.

The core finding is straightforward: *Australia cannot achieve sustained productivity growth or a credible transition to low and zero emissions road freight with one of the oldest truck fleets in the developed world. Reforms that modernise the truck fleet, improve road access, remove regulatory barriers to HZEV infrastructure, and enable quieter zero emissions vehicles to operate outside traditional curfews will unlock a significant productivity dividend while accelerating adoption of advanced safety technologies and emissions reduction.*

---

1. Introduction and Context

1.1 The Role of Road Freight in the Australian Economy

Road freight is not simply a transport sub-sector; it is a foundational input to the Australian economy. From agriculture and mining to manufacturing, construction, retail, and health services, almost every good consumed or exported in Australia has been transported by truck at some point.

Australia's geography, dispersed population, and long supply chains make road freight particularly critical. Unlike many European economies, Australia has limited alternatives to road transport for

time-sensitive and door-to-door freight. As a result, inefficiencies in the road freight task quickly translate into higher costs for businesses, increased prices for consumers, and reduced international competitiveness.

1.2 Productivity Stagnation and Fleet Age

Historically, Australia was a global leader in road freight productivity. Innovations such as B-doubles, road trains, and early infrastructure investment delivered substantial gains in the late twentieth century. However, over the past two decades these gains have largely plateaued.

At the same time, Australia's truck fleet has continued to age. The median age of trucks above 4.5 tonnes GVM is approximately 14.8 years, roughly double that of many comparable economies. Under a business-as-usual trajectory, by 2030 around one-third of the national fleet, some 273,000 vehicles, will be more than 23 years old.

Fleet age matters because it directly constrains productivity, safety, and environmental performance. Older trucks are less reliable, less fuel-efficient, and unable to participate fully in modern high-productivity vehicle schemes. They also lack the advanced safety and emissions technologies that are now standard in today's modern truck.

---

2. Productivity, Emissions Reduction, and the Reform Imperative

2.1 Productivity and Decarbonisation Are Complementary

A common policy misconception is that productivity reform and decarbonisation represent a trade-off. In practice, the opposite is true. Measures that allow fewer vehicles to carry more freight per trip reduce total vehicle kilometres travelled, lower congestion, improve safety outcomes, and reduce emissions intensity.

Modern trucks—ADR 80/04 (Euro VI) diesel trucks —are inherently safer, cleaner, and more productive than the vehicles they replace. When paired with appropriate access and regulatory settings, these vehicles deliver both economic and environmental benefits.

2.2 The Challenge for Heavy Zero Emissions Vehicles

HZEVs represent a critical pathway to long-term decarbonisation of road freight. However, their uptake is currently constrained by structural and regulatory barriers, including:

- Additional vehicle mass associated with batteries or hydrogen storage, which reduces payload under existing mass limits;
- Restricted access to high-productivity networks, limiting their ability to offset higher capital costs through improved utilisation;
- Inadequate charging (BEV) and refuelling (Hydrogen) infrastructure optimised for heavy vehicle operations; and
- Operating restrictions such as curfews that negate potential efficiency advantages.

Addressing these barriers through targeted productivity reforms is essential if HZEVs are to be commercially viable at scale.

---

3. Increasing Heavy Vehicle Road Access to Boost Productivity and Reduce Emissions

3.1 The Case for Improved Road Access

Road access restrictions remain one of the most significant constraints on freight productivity in Australia. Even where vehicles meet stringent safety and infrastructure performance standards, access decisions are often fragmented, slow, and conservative.

This is particularly problematic for:

- High-productivity freight vehicles, such as Performance-Based Standards (PBS) combinations; and
- HZEVs, which face a payload penalty due to additional tare mass.

Without improved access, operators are forced to move the same freight task with more trips, more vehicles, more road damage, increased crash risk and higher emissions.

3.2 Addressing the Mass Penalty for HZEVs

Battery electric and hydrogen trucks are inherently heavier than their internal combustion engine counterparts. Under existing mass limits, this reduces payload and undermines productivity.

Targeted reforms should include:

- Increased axle mass limits for approved HZEVs to offset the weight of zero-emissions technology;
- Nationally consistent mass concessions that provide regulatory certainty across jurisdictions; and
- Alignment of mass settings with demonstrated safety and infrastructure performance rather than prescriptive limits.

Such measures would allow HZEVs to compete on a more level footing while maintaining safety and infrastructure protection.

3.3 Expanding Access for High-Productivity Vehicles

Evidence consistently shows that high-productivity vehicles deliver superior safety and productivity outcomes. Performance Based Standards (PBS) vehicles, for example, can carry significantly more freight per trip while being involved in fewer crashes per kilometre travelled than conventional combinations.

To unlock these benefits at scale, governments should:

- Expand approved PBS networks on key freight corridors;
- Streamline access approval processes, particularly across state and local government boundaries; and
- Incentivise road managers to permit access where performance standards are met.

Expanding access reduces the total number of truck movements required to service the freight task, delivering safety, emissions and congestion benefits alongside productivity gains.

3.4 Targeted Infrastructure Upgrades

In some cases, access constraints reflect genuine infrastructure limitations. Targeted, evidence-based upgrades—such as bridge strengthening, pavement improvements, and intersection redesign—can unlock disproportionate productivity gains.

Prioritising investment on high-volume freight routes used by HZEVs and high-productivity vehicles ensures that infrastructure spending delivers maximum safety, economic and environmental returns.

---

4. Removing Administrative and Regulatory Barriers to HZEV Charging Infrastructure

4.1 Infrastructure as a Productivity Enabler

For HZEVs to operate productively, charging and refuelling infrastructure must be designed around freight task realities. This includes:

- High-capacity charging suitable for heavy vehicles;
- Locations aligned with freight corridors, depots, and logistics hubs; and
- Systems that minimise downtime during long-haul operations.

Without such infrastructure, HZEVs risk becoming niche vehicles rather than mainstream freight assets.

4.2 Regulatory and Planning Barriers

Current barriers to infrastructure deployment include:

- Complex planning and approval processes;
- Uncertainty around grid connection and energy pricing; and
- Limited coordination between transport, energy, and planning authorities.

These barriers increase costs, delay investment, and undermine operator confidence.

4.3 Policy Actions to Accelerate Deployment

Reforms should focus on:

- Streamlining approvals for heavy vehicle charging infrastructure;
- Facilitating timely and affordable grid connections; and
- Supporting co-investment models for publicly accessible infrastructure.

Publicly accessible HZEV charging infrastructure is not only an environmental necessity; it is a productivity enabler that ensures operators can remain competitive in a net zero economy.

---

5. Reducing or Removing Curfews for Heavy Zero Emissions Vehicles

5.1 Curfews as a Productivity Constraint

Curfews on heavy vehicle movements are typically imposed to manage noise impacts in residential areas. While these restrictions may be appropriate for older, noisier vehicles, they do not reflect the operating characteristics of modern HZEVs.

By limiting access to off-peak periods, curfews:

- Increase congestion during peak hours;
- Lengthen freight transit times; and
- Reduce asset utilisation.

5.2 The Opportunity Presented by Quieter Vehicles

HZEVs are significantly quieter than traditional diesel trucks, particularly at low speeds and during acceleration. This creates an opportunity to rethink long-standing curfew arrangements.

Allowing HZEVs to operate during non-standard hours would:

- Shift freight movements to periods of lower congestion;
- Improve network efficiency and reliability;
- Reduce emissions associated with stop-start traffic; and
- Support faster and more predictable supply chains.

5.3 A Targeted, Evidence-Based Approach

Rather than blanket exemptions, governments could:

- Trial curfew reductions for certified low-noise HZEVs;
- Use performance-based noise standards to manage community impacts; and
- Engage communities to demonstrate the benefits of quieter freight operations.

Such an approach aligns modern vehicle technology with contemporary community expectations.

---

6. Economy-Wide Impacts of Heavy Vehicle Productivity Reform

6.1 Lower Freight Costs and Inflationary Pressures

Improved productivity reduces the cost per tonne-kilometre of freight. These savings flow through supply chains, lowering input costs for businesses and moderating price pressures for consumers.

In an environment of persistent cost-of-living concerns, productivity-enhancing freight reform represents an underutilised lever for economic stability.

6.2 Safety and Workforce Outcomes

Modern, high-productivity vehicles are also safer. Reducing crash rates lowers human and economic costs while supporting workforce retention in an industry facing chronic driver shortages.

Safety improvements should be recognised as a direct contributor to productivity, not merely a social benefit.

6.3 Supply Chain Resilience

Fewer, more productive vehicles operating on resilient networks improve the robustness of supply chains. This is particularly important in the face of natural disasters, global disruptions, and growing freight demand.

---

7. Conclusions and Recommendations

Australia stands at a crossroads in road freight policy. Continuing with incremental reform will entrench an ageing fleet, constrain productivity growth, and slow the transition to net zero. Alternatively, a coordinated heavy vehicle productivity reform package can deliver substantial economic, safety, and environmental benefits.

The Truck Industry Council recommends that the Productivity Commission support reforms that:

1. Increase road access for high-productivity vehicles and HZEVs, including appropriate mass and axle concessions;
2. Expand and streamline access to key freight networks based on performance and safety outcomes;
3. Remove administrative and regulatory barriers to the deployment of HZEV charging and refuelling infrastructure;
4. Enable publicly accessible, high-capacity HZEV charging aligned with freight corridors;
5. Reduce or remove curfews for certified low-noise HZEVs to improve off-peak freight productivity; and
6. Treat fleet modernisation as a central pillar of national productivity and decarbonisation policy.
7. Review and revise the Road User Charging (RUC) scheme as outlined in the TIC National Truck Plan 2025 to fund and incentivise the uptake of new, safer, more environmentally friendly and more productive ADR80/04 diesel and HZEV trucks.

By aligning productivity reform with fleet modernisation, advanced safety technology adoption, and emissions reduction, Australia can restore its position as a global leader in efficient, safe, and sustainable road freight.

About the Truck Industry Council

The Truck Industry Council (TIC) is the national peak body and respected advocacy voice representing Australia's manufacturers and distributors of heavy commercial vehicles above 3.5 tonnes. TIC's membership includes all major truck makers, collectively supplying 18 truck brands to the domestic market - over 98% of all new on-highway trucks above 4.5 tonnes GVM sold nationally - as well as leading component manufacturers developing next-generation, lower-emission engines and driveline systems.

The new truck sector contributes significantly to the Australian economy, generating around $7 billion in annual sales and supporting a further $14 billion in associated activity. Despite strong recent sales—44,379 trucks in 2022; 47,757 in 2023; 51,277 in 2024 and 45,191 in 2025—the average age of the national fleet continues to remain high due to the rapidly expanding freight task. This widening age gap underscores a growing strategic challenge for the nation.

Australia maintains a strong local manufacturing footprint through PACCAR Australia in Bayswater, Victoria (producing Kenworth and DAF trucks) and Volvo Group Australia in Wacol, Queensland (producing Volvo and Mack trucks). Together, these facilities build around half of all heavy-duty trucks sold domestically, some 7238 vehicles—without federal industry support. They are complemented by major importers supplying vehicles from Asia, Europe, and the United States, ensuring operators can access trucks designed for the country's uniquely demanding conditions.

A defining feature of the sector is its extensive second-stage manufacturing ecosystem. As most trucks are sold as cab-chassis units, approximately 95% require additional work before being fit for purpose. This supports hundreds of specialised Australian manufacturers producing trailers, tankers, tippers, specialist bodies, hydraulics, electrical systems, and more. Across local manufacturing, importing, distribution, servicing, and equipment and body building, TIC members are part of a skilled and semi-skilled workforce of roughly 40,000 people. This includes around 4,800 employed in truck manufacturing and assembly, 1,450 in importing and distribution, nearly 30,000 across dealer networks, and more than 4,000 in body building and secondary manufacturing.

Together, TIC members form the backbone of Australia's heavy vehicle industry, supplying the nation's freight operators with purpose-built trucks and sustaining a vital industrial, economic, and employment base.

TIC's Objectives and Role

TIC's mandate is to advocate for a safer, greener, cleaner, more productive and modern Australian truck fleet. The organisation works to ensure Government policy settings enable the adoption of life-saving safety technologies, low and zero-emission vehicles, and improved freight performance.

TIC members already supply the safest, cleanest and most technologically advanced trucks available globally, including 10 brands currently offering battery electric trucks and one brand offered a hybrid truck. Additional models are due for release from 2026 onward.

TIC stands ready to work with the Australian Government as a technical and policy adviser and implementation partner to help deliver national objectives in road safety, net-zero emissions, air quality and community health, and economic productivity.