BUS INDUSTRY CONFEDERATION
moving people

Productivity Commission - impacts of heavy vehicle reform

December 2025

Contents

The Bus Industry Confederation

The Bus Industry Confederation (BIC) is the national independent peak body for the Australian Bus and Coach Industry. We represent over 160 bus and coach operators, body, chassis and complete bus manufacturers and suppliers, parts and service providers, professional services, and state bus associations on issues of national importance.

Zero Emission Buses (ZEB) make up 20% of all new bus deliveries in Australia.

Our membership is becoming increasingly diverse as key energy and infrastructure partners join as we transition the fleet to low and zero emissions. The BIC advocates on behalf of our members to federal, state and territory governments and associated bodies, to ensure the safe and efficient carriage of passengers, along with safe and sustainable operations and supply chains that support the industry.

The BIC calls on the Productivity Commission to ensure that bus and coach are always on the agenda when considering any sort of heavy vehicle reform.

Consultation should occur with all stakeholders on heavy zero emission vehicles. Referring to heavy zero emission vehicles as “EV trucks” throughout the Call for Submission does not accurately reflect the breadth of the heavy vehicle industry. In recognising this important inclusion, it will allow the Productivity Commission to develop comprehensive and robust advice to government that properly contemplates the full spectrum of heavy vehicles.

As will be detailed in our submission, infrastructure remains a key barrier to the net zero aspirations of government. Our experience should inform the Commission on how it should recommend a bipartisan, long-term plan to zero emission vehicles. Without proper long-term planning of energy infrastructure, the net zero heavy vehicle transition will remain fragmented and ineffective.

In line with the request for evidence and data, we also attach a number of papers that were developed for other purposes that may assist the Commission.

BIC would welcome the opportunity to be directly involved in any further conversations with the Commission regarding heavy zero emissions vehicles.

About Buses

Buses serve as mass transit, delivering benefits like reduced congestion, lower pollution, and enhanced productivity, as well as providing critical social mobility through frequent local routes. These benefits extend to improved public health, lower crime rates and better overall social outcomes, resulting in reduced costs for health and legal systems. The Australian bus industry is uniquely positioned to lead the transition to zero-emission technologies[1]. for heavy vehicles, assisting decarbonising strategy for the nation.

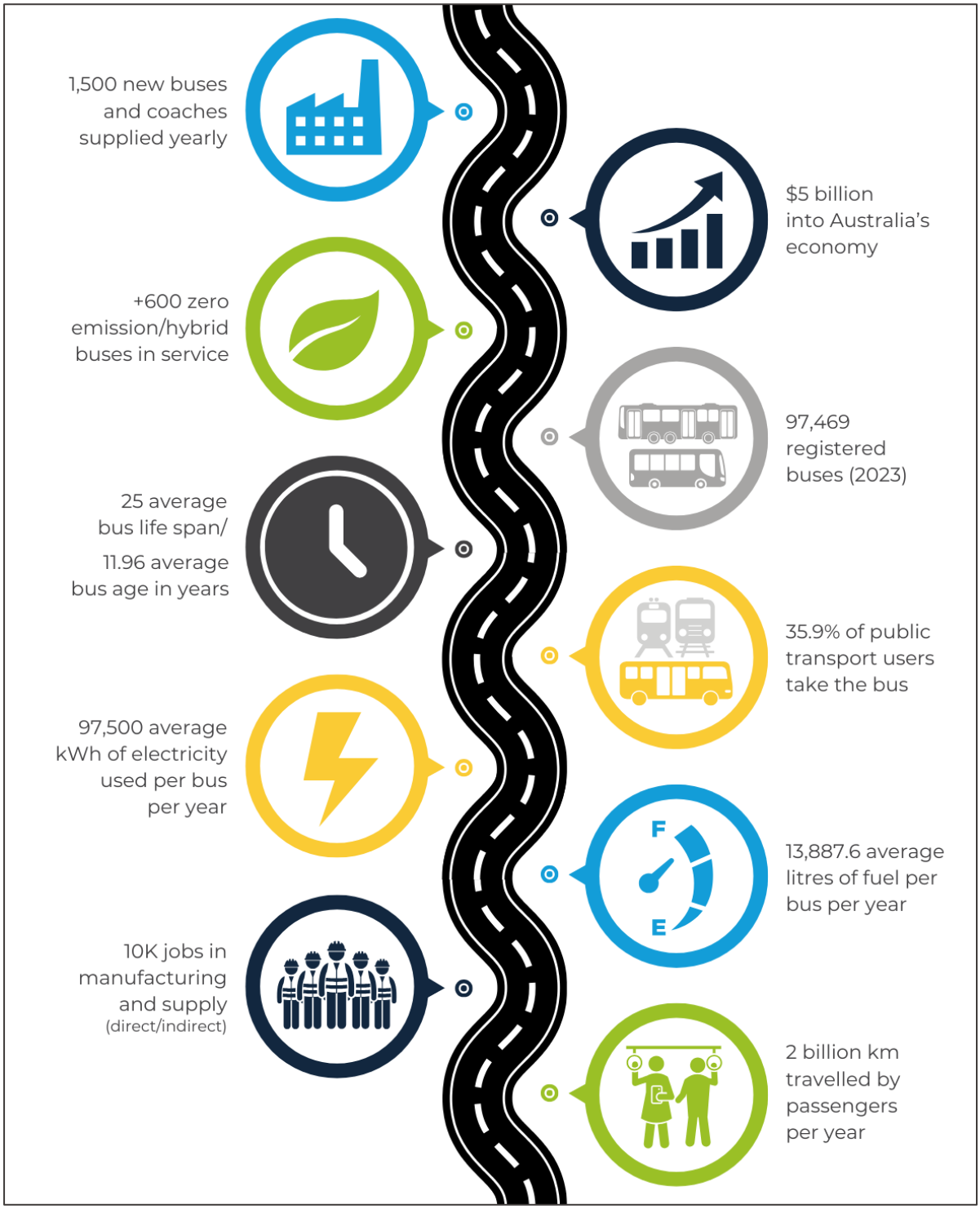
Buses have a strong and diverse manufacturing, and supplier presence in Australia providing 10,000 direct and indirect jobs in Australia. This encompasses full manufacturers, assemblers, importers, component manufacturers, suppliers, and importers. We provide an economic contribution $5Billion yearly to the Australian economy.

Buses provide a cost-effective safe role in moving people from and to their destinations every day, whether it is dense urban outer urban, regional, remote, or interstate. For example, in outer suburban areas, where other mass transit options are scarce, buses are vital in addressing poverty, disadvantage, and the financial strain of car ownership. They offer essential mobility to communities facing isolation, poor services, and socio-economic challenges.

Buses - The essential public transport carrying Australia.

[1] BIC Policy Position Paper – Driving Towards Zero Emissions

Industry Snapshot | 2025



Bus and Coach – Leaders in Heavy Zero-Emission Vehicles

The bus and coach industry are uniquely placed to provide information, learnings and advice regarding the electrification of heavy vehicles.

Over the past five years, Australia has witnessed a steady increase in the adoption of Zero Emission Buses (ZEBs), a trend powered by industry-led sustainability initiatives and government direction under the various state and federal net zero policies. However, a successful transition relies on infrastructure development keeping pace.

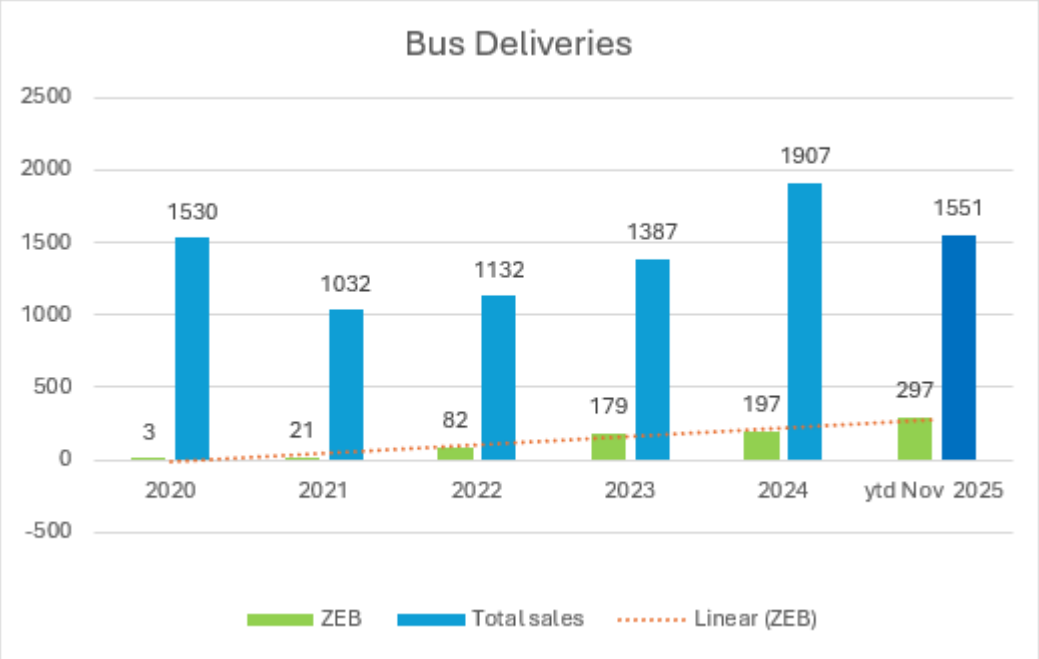
Industry-led sustainability shifts

The transportation sector has been a focal point for decarbonisation efforts given its significant contribution to national emissions, even though buses only contribute 1.8% to overall transport emissions. Bus manufacturers and fleet operators have led the charge by investing heavily in electric and hydrogen fuel cell technologies, including local design and assembly. These innovations not only reduce emissions but provide improved public transport user experience and achieve government expectations for cleaner transport options.

Leading sector

The accompanying graphic clearly charts this transformation, with ZEB sales climbing from 0.2% in 2020 bus sales to almost 20% in 2025, leading the transition to zero within the automotive sector. This growth has been despite fluctuations in total bus sales, indicating how ZEBs are capturing a larger share of the market. The dotted red trend line underscores the consistent upward momentum in ZEB adoption.

Government, across the various jurisdictions have in place contractual targets for Operators which can be up to XX% over the life of the contract. Likewise, our Operators have direct experience in dealing with zero-emissions targets through the upgrading of their depots and facilities.



Policy must match infrastructure to succeed

Australia's commitment to achieving net zero by 2050 has been a powerful catalyst for the embrace and growth of ZEBs. However, the continued rise in sales has identified how policy momentum should mirror infrastructure readiness to optimise deployment.

The Bus Industry Confederation's (BIC) *Zero Emission Bus Policy 2024* highlights this critical condition, stressing that investment in ZEBs must be accompanied by:

- robust charging and refuelling infrastructure across urban and regional networks;
- grid capacity upgrades to ensure reliable and sustainable power supply for large-scale electric bus operations, and
- integrated planning between industry, transport agencies, energy providers, and local governments to avoid bottlenecks and delays.

Without sufficient infrastructure and energy planning, the rapid roll-out of ZEBs could outpace the systems that support it. BIC's policy calls for a coordinated national approach to infrastructure development, including long-term investment strategies and clear accountability frameworks. Key to this is collaborating with existing industry expertise on infrastructure goals and the solutions to achieve them.

While government direction has successfully accelerated ZEB uptake, the next phase of Australia's net zero journey depends on ensuring that the physical and energy infrastructure is ready to meet the demands of a zero-emission future.

Our story should shape and inform the Productivity Commission's advice to government. Especially when it comes to ensuring that infrastructure is adequate to deliver on zero emission heavy vehicles. In one depot only eight battery electric buses consumed up to 90% of the depot's entire electricity requirements - a stark example of the types of pressures on the grid.

A simple extrapolation of those figures to account for the number of trucks on the road and the quantum of energy that would be required should be at the forefront of the government's mind when decisions are made regarding the delivery of heavy vehicle zero emission targets.

Response

The Bus Industry Confederation (BIC) welcomes the opportunity to provide input to the Productivity Commission (PC) on the impacts of heavy vehicle reform.

BIC have made a general response to the consultation paper and identified areas for the PC's attention, specifically relevant to the bus and coach industry.

Increasing heavy vehicle road access to reduce emissions and increase productivity

The PC seeks views, data and evidence that would be necessary to analyse and model these regulatory reforms, including:

- *appropriate reforms to assess under this proposal, e.g. increases in general mass limits under the HVNL*
- *additional cost of road wear and infrastructure maintenance*
- *intersection with other infrastructure barriers necessary to take up reformed regulation*
- *implementation issues, including how governments should apportion any increased road infrastructure costs between levels of government*
- *how imported vehicles can comply with both international and domestic standards to allow vehicles (including heavy zero emission vehicles) to be imported without being repurposed*
- *availability of data on road use, the structure of the road network, and different heavy vehicle users (and user industries).*

Response

The bus and coach industry supports reforms under the Heavy Vehicle National Law (HVNL) that enhance productivity, reduce emissions, and maintain safety.

Increase to Vehicle Mass

Industry push for reform on the issue of mass is being driven by the increased weight of zero-emission buses, which on average are **1.5 tonne** heavier than a typical ICE drivetrain. The BIC proposes a review of vehicle mass to account for the increase weight of zero-emission buses.

To address the increase in weight of ZEB, the BIC proposes increased axle mass limits—as per table below—to preserve operational efficiency and align with EU standards (updated from Section 8, BIC Paper, Feb 2023).

Vehicle Type	ADR limit	HNVL Limit	Proposed	UN/EU Limit
2 axle bus	16t	18t	19t	19.5t
3 axle bus	19t	22t	23t	24t
Articulated Bus	26t	26t 26.8t (NSW)	28t	28t

Heavy Vehicle Width and Passenger Capacity

Heavy vehicle mass is Intertwined with the issue of vehicle width. The bus and coach industry continue to strongly advocate for modest increases to axle and gross vehicle mass (GVM) limits and an increased width (2.5 metres to 2.55 metres), as outlined in the BICs 2023 paper on mass and dimensions (see Attachments).

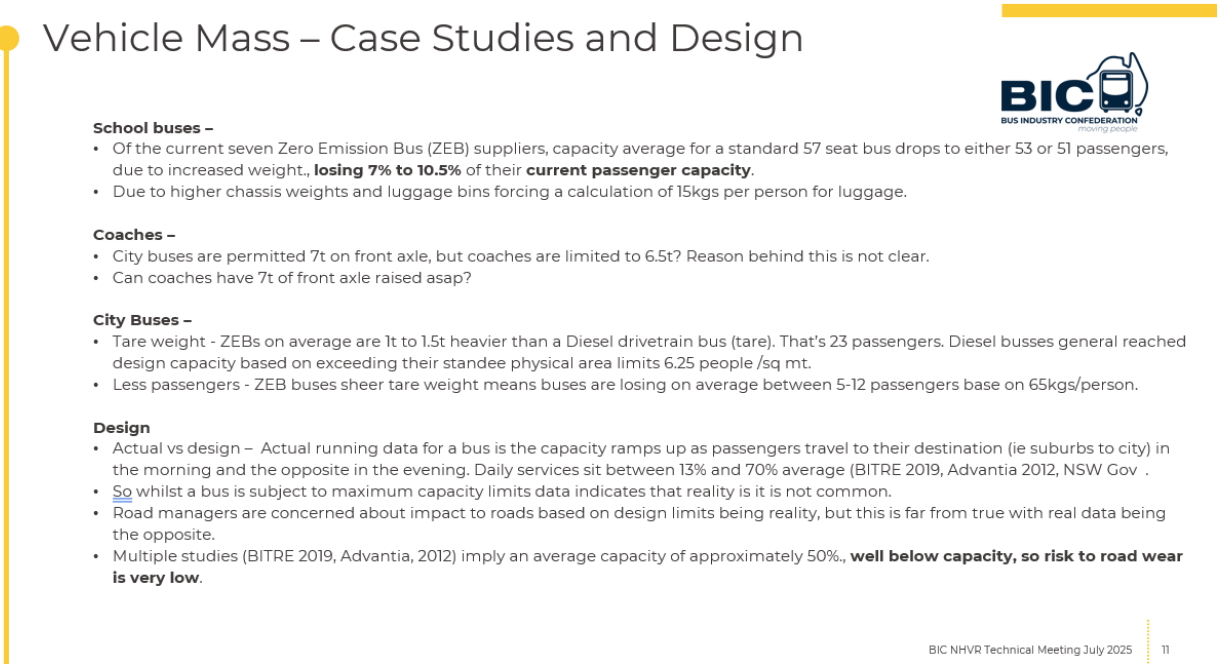
In addition, requirements to meet Disability Standards such as wheelchair lifts and other safety features have also contributed to weight increases. The resultant operational challenges, such as reduced **passenger capacity** and the need for larger fleets, especially with school bus configurations.

The combination of increased axle mass limits and low floor accessible passenger access have led to the demand for wider buses (from 2.5 metres to 2.55 metres) to account wider independent front suspension systems used to accommodate increased weight.

The industry continues to face substantial barriers in the form of restrictive ADR and NHVR standards and a real reluctance to initiate this much needed change in bus width. We advocate that the **width** of heavy vehicles must be considered an appropriate reform to assess under this proposal.

Case Study 1

The following scenario identifies how the combined issues of ZEB, passenger capacity, width and design, conflate to give rise to a need for change in mass and width limits.



Summary

This summary highlights key assessment areas and their economic, safety, and operational impacts.

Reform / Assessment Area	Economic Impact	Safety Impact	Operational / Industry Impact
1. Increases in General Mass Limits	Improved productivity; fewer vehicles required per service; reduced operating costs per passenger-km	Must ensure braking, stability, and passenger safety standards are maintained	Enables larger ZEB/HZEVs with full passenger capacity; supports fleet efficiency. WIDTH must also be considered for reform.
2. Additional Road Wear / Infrastructure Costs	Potential incremental maintenance costs; differentiated by passenger vs freight vehicles	Minimal impact compared with freight; safety depends on pavement integrity	Evidence-based modelling required to justify mass increases and design upgrades
3. Intersection with Other Infrastructure Barriers	Productivity gains limited if physical network constraints remain	Safety could be compromised if intersections, ramps, or bridges are not upgraded	Requires complementary upgrades (bus bays, turning circles, depots, overhead clearance)
4. Implementation & Cost Apportionment	Fair allocation of road infrastructure costs; recognition of public benefits (reduced congestion, emissions, mobility)	Properly funded infrastructure maintains safety	Cost-sharing frameworks should reflect actual use and public-good benefits of bus networks
5. Imported Vehicle Compliance	Reduces upfront fleet costs; encourages adoption of ZEB/HZEV technology	Safety standards maintained if harmonised with domestic regulations	Streamlined approval reduces delays and avoids repurposing; faster fleet modernisation
6. Availability of Road Use & Network Data	Supports evidence-based economic assessment; informs cost-benefit and infrastructure planning	Enables monitoring of safety impacts and network stress	Facilitates planning, scheduling, and efficient route design; supports data-driven regulatory decisions

Key Takeaways

- Heavy Vehicle **mass, width** and **passenger capacity** must also be considered as appropriate reforms to assess under this proposal.
- Economic Benefits: Reforms can improve fleet productivity, reduce operating costs, and accelerate the adoption of zero-emission buses.
- Safety Considerations: All changes must maintain or enhance passenger and network safety, particularly with heavier or new-technology buses.
- Operational Efficiency: Complementary infrastructure upgrades and streamlined regulatory processes are essential to realise full benefits.
- Data-Driven Policy: High-quality road-use and network data is critical for planning, implementation, and monitoring outcomes.

National Automated Access System

The PC seeks views, data and evidence in relation to this proposal, including:

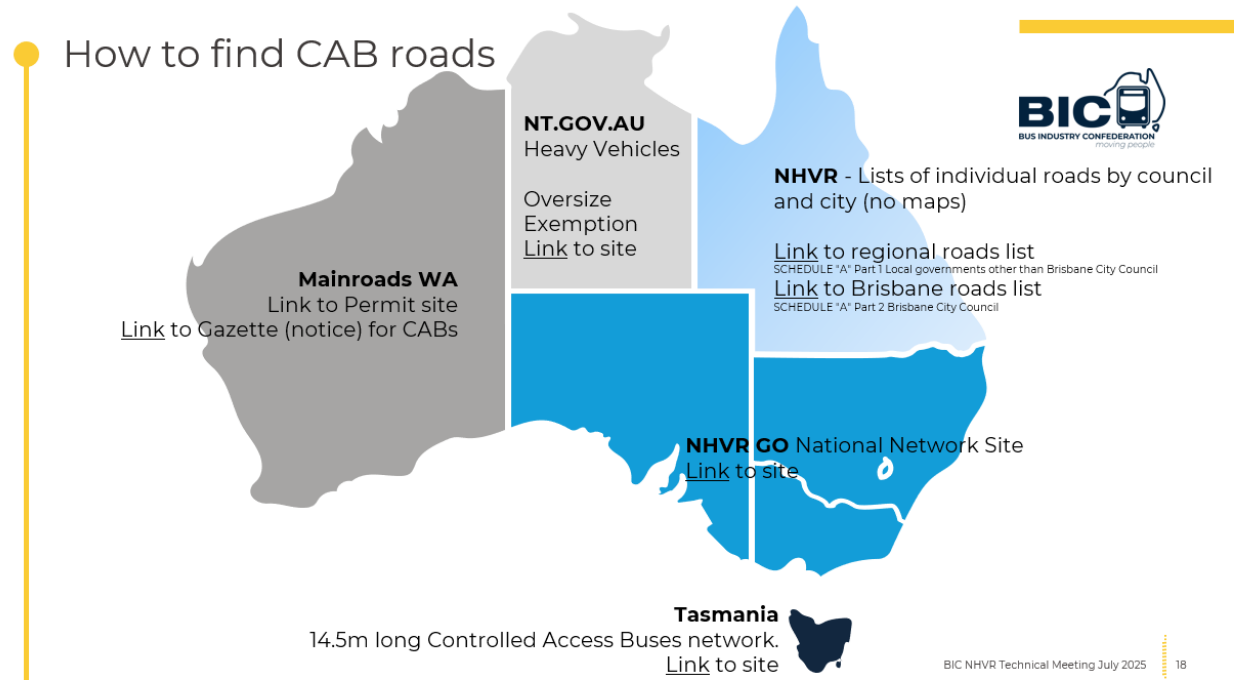
- *future coordination and alignment between the states and territories*
- *how best to determine which roads might be eligible for automatic access, initially and on an ongoing basis*
- *the technical and administrative practicalities of scaling up Tasmania's model to the whole of Australia*
- *the costs and benefits of the current access permit system borne by heavy vehicle operators*
- *availability of data on road use, the structure of the road network, and different heavy vehicle users (and user industries).*

Response

The bus and coach industry supports reforms that simplify heavy vehicle access while maintaining safety, operational efficiency, and public benefit. A national automated access system has the potential to reduce regulatory burden, improve fleet utilisation, and accelerate the adoption of zero-emission buses (ZEBs) and hydrogen buses (HZEVs). Our response addresses the specific points raised by the Productivity Commission.

Assessment Area	Economic / Productivity Impact	Safety Impact	Operational / Industry Impact
1. Coordination Across States/Territories	Reduces administrative duplication; improves fleet utilisation and investment certainty	Harmonised standards maintain consistent safety expectations across networks	Enables seamless interstate and regional service delivery; reduces route planning complexity
2. Determining Roads Eligible for Automatic Access	Focus on primary bus/coach corridors supports higher productivity and fewer route restrictions	Data-driven selection maintains network safety and prevents infrastructure overload	Enables direct, efficient routes; reduces rerouting and operational delays
3. Scaling Up Tasmania's Model Nationally	Reduces permit processing costs; faster access approvals accelerate fleet deployment	Maintains safety through automated assessment and exception handling	Provides predictable access; allows phased implementation; supports fleet planning and ZEB/HZEV integration
4. Current Access Permit System Costs and Benefits	Operators save 5–15% of permit-related costs; fleet productivity gains 2–4%	Consistent rules reduce risk of safety breaches from ad-hoc or delayed approvals	Reduces scheduling inefficiencies; supports reliable service timetables
5. Road Use, Network, and User Data Availability	Enables evidence-based economic assessment; supports cost-benefit analysis	Supports monitoring of safety impacts and network stress	Improves route planning, maintenance planning, and network utilisation; informs regulatory decisions

We include below a snapshot of the avenues in which an Operator must pursue if they intend to travel interstate.



Key Takeaways

- Economic Benefits: Reduced administrative costs, improved fleet utilisation, and faster deployment of zero-emission buses.
- Safety Benefits: Automated, data-driven assessments reduce risks and maintain consistent standards across the national network.
- Operational Benefits: More efficient routing, predictable access approvals, and improved service reliability for passengers.

National Heavy Vehicle Driver Competency Framework (NHVDCF)

The PC seeks views, data and evidence in relation to this proposal, including:

- *what are the largest hurdles for timely or accelerated implementation of these reforms*
- *what federal, state & territory or private bodies are expected to handle the various stages and aspects of implementation*
- *what timeframes are sensible for accelerated implementation of the reforms*
- *data relevant to quantitative estimates of productivity impacts of the reforms*
- *how best to quantify the impact of the reforms.*

Response

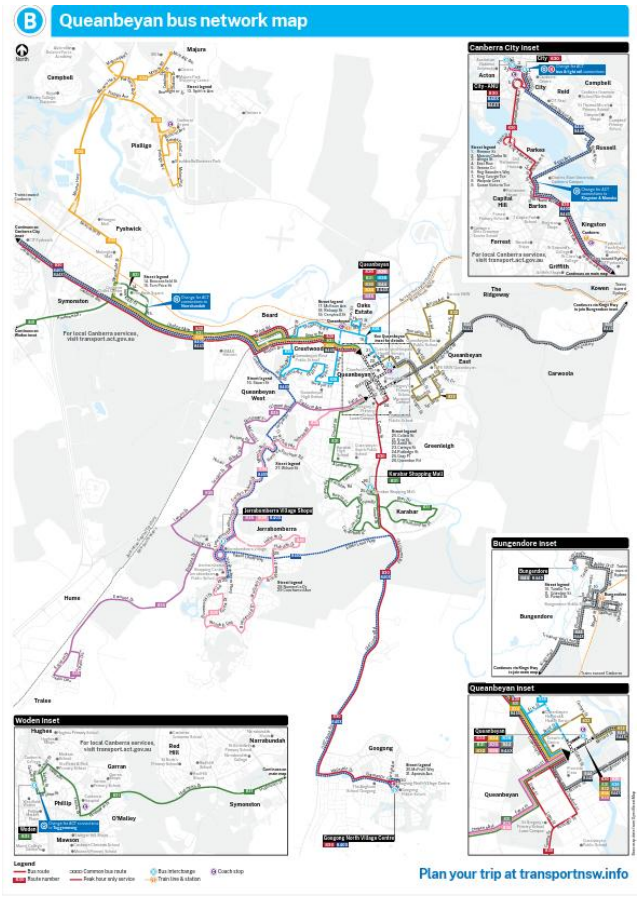
The bus and coach industry strongly supports the objectives of the NHVDCF, which aim to improve heavy vehicle driver skills, standardise training quality, and reduce operational risk. Acceleration of the framework offers potential productivity, safety, and workforce benefits, but several hurdles and considerations must be addressed to ensure effective implementation. The most significant hurdle is ensuring that harmonisation and transferability across jurisdictions is achieved.

Call for Further Licencing and Accreditation Reform to Increase Productivity

The BIC applauds the reform agenda for a national framework for driver competency. However, the need for harmonisation of licencing, driver health screening and passenger vehicle accreditations must be considered by the Productivity Commission as a priority to reduce the unnecessary complexity and regulatory burden placed on Operators and their Drivers.

Case Study 2

Operators in the Australian Capital Territory (ACT) and their satellite communities of Queanbeyan and Bungendore in New South Wales (NSW) face the ridiculous scenario of Bus Drivers requiring two separate state passenger driver authorities. The network map below demonstrates one such example.



ACT and NSW have differing requirements for health assessment requirements for public passenger vehicle driver accreditation authorities as dictated by state authorities. The table below demonstrates the significant differences in requirements on health screening criteria alone between these two jurisdictions.[2] There are also other differences in criteria assessed under the accreditation between the jurisdictions that also add to the regulatory burden on operators and employees that are not explored in this paper that warrant further investigation.

Table 10. Health assessment requirements for public passenger vehicle driver accreditation/authorisation

Jurisdiction	Vehicle type	Initial application	Periodic
ACT[8]	Rideshare, hire car, taxi, restricted hire car	✓	✓ 5-yearly to age 70 then annually (or sooner if condition reported)
	Bus	✓	✓ Annually (or sooner if condition reported)
NSW[9]	Bus	✓	✓ 3-yearly to age 60, then annually (or sooner if condition reported)

[2] National Transport Commission - Improving health screening for commercial vehicle drivers: Discussion Paper (March 2025).

The BIC recommends the Productivity Commission should review National Transport Commission's *Improving health screening for commercial vehicle drivers* as a part of this study.

Summary

This summary highlights key assessment areas and their economic, safety, and operational impacts.

Assessment Area	Key Considerations / Hurdles	Responsible Bodies	Sensible Timeframes	Data Requirements	Methods to Quantify Impact
1. Training and Assessment Capacity	Limited trainers and assessment centres; small operators may struggle to meet requirements	RTOs, bus operators, industry associations, licensing authorities	Pilot programs 2025–2026; phased rollout 2026–2027	Number of drivers, available trainers, training throughput	Measure time to qualification, reduction in service cancellations, driver availability
2. Regulatory Harmonisation	Inconsistent licensing rules across states/territories	Federal Department of Infrastructure & Transport, Austroads, State/Territory Licensing Authorities	Framework alignment 2025–2026	Licensing rules, cross-jurisdictional training data	Compare compliance rates, consistency in licensing, cross-border service efficiency
3. Industry Engagement and Uptake	Scheduling challenges; resource constraints for smaller operators	Bus operators, industry peak bodies	Phased adoption 2026–2027	Driver schedules, fleet utilisation, training participation	Estimate productivity gains (fleet-km per driver), service reliability improvements
4. Data Collection and Quality Assurance	Need robust monitoring for competency outcomes, compliance, and productivity	Austroads, NHVR, State/Territory transport regulators	Establish data systems 2025–2026; continuous monitoring 2026+	Operational data, incident rates, training outcomes, fleet schedules	Quantify reductions in incidents, improved service reliability, productivity metrics
5. Financial and Administrative Burden	Training and compliance costs may be high for regional operators	Licensing Authorities, RTOs, bus operators	Cost support and phased rollout 2025–2027	Training costs, admin hours, fleet size, driver numbers	Calculate cost savings from reduced errors, accidents, and improved efficiency

Key Takeaways

- **Harmonisation** of licencing, heavy vehicle driver health screening and accreditations are required to boost productivity.
- **Economic / Productivity Benefits:** Faster driver qualification, reduced cancellations, improved fleet utilisation.
- **Safety Benefits:** Reduced driver error, consistent competency standards, lower accident risk.
- **Operational Benefits:** Streamlined scheduling, better workforce retention, alignment with ZEB/HZEV fleet needs.

Barriers to availability of EV truck charging infrastructure

The bus and coach sector is progressing rapidly toward zero-emissions fleets, with many metropolitan and regional jurisdictions adopting transition timelines. While several of the barriers facing EV trucks also affect heavy EV buses, the bus industry faces additional constraints due to fixed route scheduling, depot-based operations, and unique safety and passenger transport regulatory requirements.

Accordingly, the bus perspective offers important insights relevant to the broader rollout of heavy EV charging infrastructure.

Case Study 3

Metro Operators in the Sydney Region provide important case studies as they transition to electric fleet.

In one Sydney Metro depot operating only eight Battery Electric Buses (BEB) consumed up to 90% of the depot's electricity requirements. Meanwhile, other Operators have identified space constraints that occur when converting existing yards into EV depots. They also identify grid supply as a key obstacle to electrification.

We foreshadow that these issues will also impact EV truck operators who rely on their yards as an area to refuel, park and maintain their vehicles. Again, grid supply will continue to remain a key obstacle to heavy zero emission vehicles.

Curfews for EV trucks

Response

Electric buses (EBs) and electric coaches share many characteristics with electric trucks: reduced noise, lower emissions, and improved acceleration/drive smoothness. However, public transport vehicles operate in environments where safety, passenger amenity, and local residential acceptance are central considerations.

As such, the bus industry offers important insights into the practicality of curfew reforms and their community impacts.

Attachments

Zero Emission Bus Policy 2024

BIC Paper on Dimensions and Mass for Low & Zero Emissions Buses and Coaches February 2023

ADR Harmonisation Review 2024-2025 February 2025

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