The Bus and Coach Supply Chain in Australia:

An industry in Crisis

August 2024

In Short

- **In October 2017, the last Aussie built car rolled off the production line in Adelaide. Without urgent government intervention, 2027 could be the last year that buses and coaches are manufactured or assembled on Australian soil.**
- The bus and coach supply chain in Australia employs 10,000 people and contributes $5 billion to the economy annually.
- External factors adversely impacting the industry today include hyperinflation, cost escalations of material, wages, sea freight, and supply chain uncertainty.
- Contract restraints limit price adjustments well below CPI and PPI and do not consider the external factors affecting the industry above.
- Suppliers run the very real risk of running at irreversible financial losses or are already incurring significant financial losses despite having full order books.
- Since 2021, six bus manufacturers and chassis suppliers have exited the Australian market. Australia's second largest bus body builder has entered voluntary administration and of the remaining body builders one third is experiencing financial hardship despite full order books.
- Over the past 20 years we have gone from 100% of buses and coaches being manufactured in Australia, to 87% in 2013 to just 64% in 2023.

What's Next

- **Assistance from the Australian and State, Territory Governments is urgently required to stop the collapse of bus and coach manufacturing and assembly in Australia.**

Why is bus manufacturing and assembly in Australia important?

Between 2008-2023 there were on average 1400 bus and coach delivered in Australia a year. Over this period the Australian bus market has seen a notable decline from 100% Australian manufactured to less than 65% Australian manufactured. In effect, only route (public transport) buses are still being manufactured in Australia. The coach, long distance and charter market has predominantly moved offshore. If this occurs in the route bus market bus manufacturing in Australia will cease to exist. If our manufacturing and supply sector ceased building buses and supplying parts and components, Australia's economy would stand to lose $5 billion a year.

Australian manufacturers have the capability to expand production and increase the number of electric buses built per year but require certainty for the number of future buses ordered, so that plants, equipment, and supplies can be ordered, and jobs created are sustained.

Australia has a long and proud history of manufacturing world-class public transport buses that importantly, are designed to last for 25 years of operation, and this industry has provided generations of workers with secure, well-paid jobs often in job deserts such as the outer suburbs of our capital cities.

Building zero emission buses is a growth opportunity for manufacturing supporting not only public transport, but related key emerging industries such as battery manufacturing identified as a priority under the Australian Governments 'A Future Made in Australia' Policy.

With an increasing number of cities around the world committing to buying only zero emission buses from 2025, there is an opportunity to create an export market particularly if Australian Design Rules are harmonised with Europe.

Australia is a relatively small bus market. As a result, it can take up 6 to 12 months for a bus procured overseas to be built and delivered to Australia. International suppliers are prioritising the sale and supply of electric buses and equipment/parts to larger demand markets such as Asia and Europe over Australia and delaying shipment[1]. This puts at risk the ability of state and territory governments to replace their ageing fleets and the countries' ability to transition transport to zero emissions.

Local manufacturers currently work closely with research institutions, universities, and other companies in the region to exchange knowledge, share best practices, and drive technological advancements.

The transition to electric buses presents the opportunity to develop new jobs and skills in Australia across the supply chain, from manufacturing through to maintenance. New skills will be needed to support the rollout of electric buses.

It is more than just Job losses, it is losing control.

For over 60 years, Australia has had a strong manufacturing sector in the heavy vehicle truck, trailer and bus sectors. The decline in local manufacturing and supply leaves the government at risk of being no longer in control of a critical sector to support a strong economy especially in times of need or crisis.

[1] IEA, Global EV outlook 2022, Securing supplies for an electric future noted that in 2021, battery demand for medium- and heavy-duty trucks and two/three-wheelers, increased by 65%1 . The high demand meant a battery supplier has stopped shipping to Australia as the demand is too low and has prioritise supply to countries with high demand.

Whilst the loss of manufacturing/supply local jobs is a well-known consequence, there are other key losses that are extremely difficult to replace should manufacturing and local supply chains cease. Along with production jobs, the critical specialist skills, machinery and facilities required to build the vehicles also disappears. They are not replaceable. They have major economic, social and security consequences. Rather than explain the losses below is a summary of the benefits local manufacturing and supply bring.

Skills & Innovation

- **Strategic skills:** The core skills performed by automotive engineers and support staff preserves critical skills within the workforce and country, preventing the erosion of industrial expertise.
- **Skill loss prevention**: Retaining vehicle manufacturing preserves critical production skills within the workforce.
- **Technical innovation:** Drives advancements in vehicle technology through local research and development. Maintain pace and drive pace for innovation. Development of skills for future generations.

Economic

- **Trade balance:** Reduces trade deficits by minimising the need for vehicle imports and potentially increasing exports.
- **Market power:** Local manufacturing helps maintain competitive markets, strong supply chains, preventing monopolies, and gives the country more control over vehicle pricing and market dynamics.
- **Market choice**: Increases consumer options and competition by offering a variety of domestically produced vehicles, fostering innovation, and meeting diverse consumer preferences. Domestic production safeguards against global supply chain disruptions, ensuring continuous vehicle availability, especially in time of global instability.

Strategic Ability

- **Economic security**: It provides jobs, supports local economies, and reduces reliance on imports, ensuring economic stability.
- **Economic sovereignty**: Maintains control over a critical industry, reducing dependency on foreign economic conditions and pressures.
- **Strategic autonomy:** Ensures independence during geopolitical tensions, allowing the country to meet its vehicle needs without external reliance.
- **Cyber security:** Allows Australia to better control these modern vehicles that are smart and connected to other platforms to ensure they can be operated securely and safely.

Environment

- **Environmental control:** Enables stricter enforcement of environmental and labour standards, contributing to sustainable and ethical manufacturing practices.

If the skills and equipment are gone, Australia loses control and places its future into the hands of other countries and their governments.

If Australia wants to maintain control and be masters of our own destiny, the governments need to actively engage with industry to address the issues and work on a harmonised way forward.

Why is the bus manufacturing and supply industry in Australia in crisis?

Over recent years the Australian bus and coach manufacturing and supply sector has been hit by a perfect storm of escalating costs, state and territory governments boom and bust procurement cycles and contractual constraints including on purchase price, and workforce shortages. This affects all aspects of the industry, whether local manufacture/assembly or imported complete bus units (CBU).

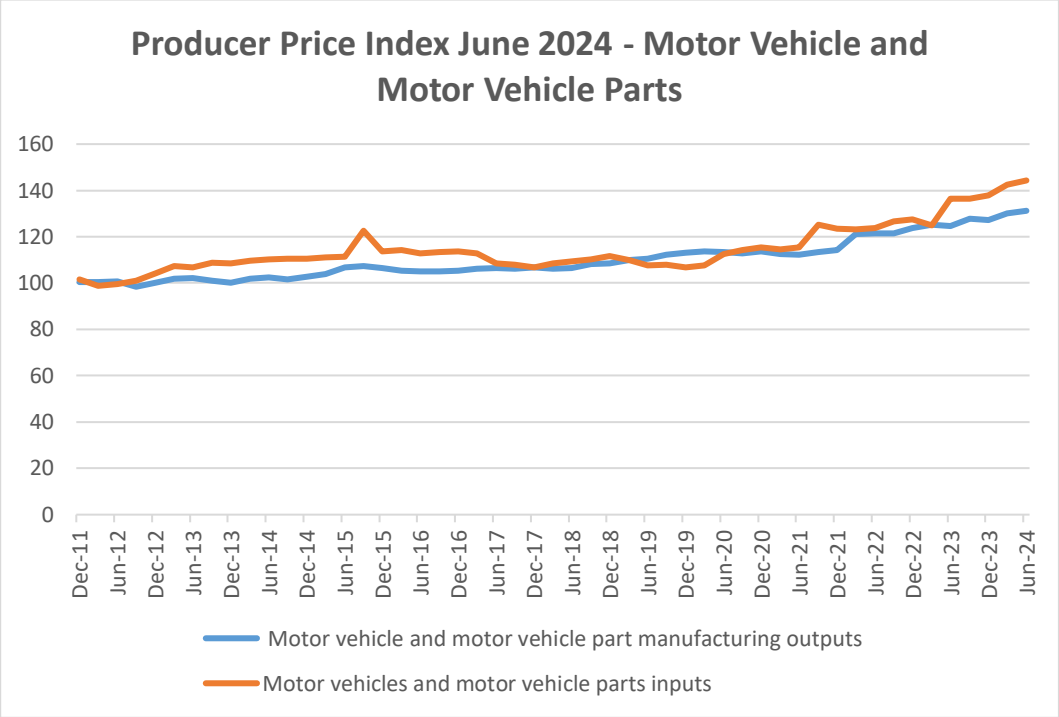
Since 2021 the following companies have ceased operation in Australia – Mercedes Benz Bus, Hino Bus, Ivecco Bus, Hyzon, E-Busco. In August 2024 Australia's third largest bus body builder entered voluntary administration. Two other bus body builders are also experiencing significant financial difficulty despite full order books.

This "perfect storm" of escalating costs and other factors impacting the sector is detailed below.

Vehicle Parts Cost Increases

Bus manufacturing is highly dependent on commodities which have been affected by hyperinflation in recent years. The Producer Price Indexes (PPI) for motor vehicle and motor vehicle manufacturing continues to increase to record highs (Figure 1). Producer Prices in Australia increased to 130.70 points in the second quarter of 2024 from 129.40 points in the first quarter of 2024. Producer Prices in Australia averaged 97.18 points from 1998 until 2024, reaching an all-time high of 130.70 points in the second quarter of 2024.

Figure 1 Producer Price Index (PPI) Motor Vehicle and Motor Vehicle Parts



Source: data from Australian Bureau of Statistics ***Producer Price Indexes****, Australia June 2024*
www.abs.gov.au/statistics/economy/price-indexes-and-inflation/producer-price-indexes-australia/latest-release

Final demand (excluding exports) rose 4.8% over the past 12 months.

Freight Cost Increases
cost of sea freight then experienced a short period of decline from the extreme highs of the pandemic years. However, prices have risen again as capacity becomes tighter across all trade lanes, and because of longer transit times due to the tensions in the Red Sea. Vessels are rerouting to avoid the conflict adding to fuel costs for shipping companies while the logjam in Singapore is creating delays of more than a month for Australian manufacturers. Consequently, average ocean freight rates for 40-foot shipping containers are up nearly 300 per cent in the year to July 2024. Research has revealed that freight constraints for roll-on roll-off freight will remain until 2025-2026.

Supply Chain Uncertainty
Increasingly unreliable freight arrivals from Asia and Europe are forcing more Australian companies to store more products locally, driving up costs. Costs for products imported into Australia are also impacted by scales of economy which reflects the boom-bust cycle of government procurement and lack of a national procurement pipeline.

Wage Increases
Wages in the private sector rose by 4.1% in the year to end June 2024 remaining significantly above the highest sustained growth rates experienced in 2011-12 2012 (Figure 2). Many workers in the industry were eligible for the 3.75% increase in the national minimum wage from 1 July 2024. While the wage increase is beneficial for employees, it can pose challenges for employers in terms of higher labour costs. Contracts with minimal rise and fall provisions, or fixed price contracts with governments negotiated in advance of pay rises being announced by the Fair Work Commission impact profit margins and financial sustainability.

Other workers in the industry are highly specialised. Enterprise Agreements reflect a much higher than CPI wage adjustment is required to keep a stable workforce and these specialist skills. If manufacturers cannot recover the cost of these wages at some point in time they will collapse.

Figure 2 Annual wage growth by sector, seasonally adjusted.

Source: Australian Bureau of Statistics, **Wage Price Index, Australia June 2024**
https://www.abs.gov.au/statistics/economy/price-indexes-and-inflation/wage-price-index-australia/latest-release

Skill Shortages

The bus supply chain is facing increased shortages of skilled labour like many other local supply chain industries. According to Jobs and Skills Australia's 2023 Skills Priority List 80% of automotive and engineering trade worker occupations were in shortage.

The skills shortage is being compounded by existing skilled staff being offered substantially higher wages on mining and large construction projects plus impacts on quality due to high job rotation and absenteeism.

It is increasingly difficult to attract young people to the industry including apprentices.

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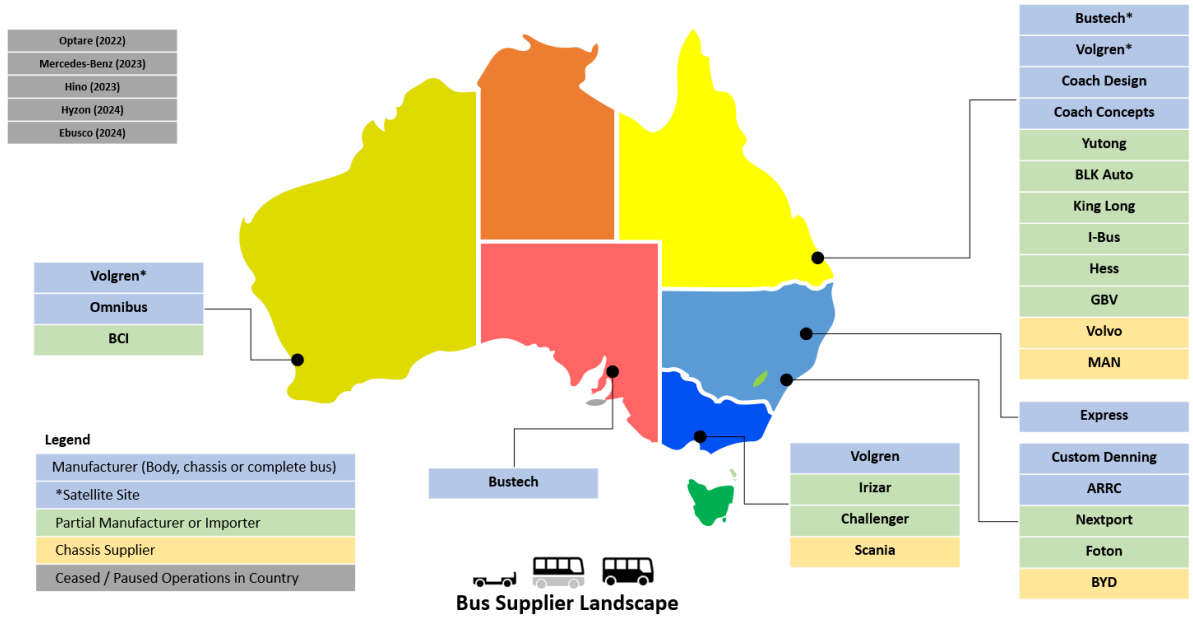
Local content requirements

Most jurisdictions have local content requirements. How it is defined and measured varies between the jurisdictions. While most jurisdictions policy indicates that local refers to Australian and New Zealand made in reality it means local to that jurisdiction. The industry has consequently ended up with manufacturers establishing facilities in two or more states for a relatively small number of vehicles often on non-ongoing contracts for supply. This has significant implications for sustainability and scalability and in turn the ability to manufacture on shore.



Bus Supplier Landscape

Manufacturers, Chassis Suppliers, Bodybuilders, Complete buses, Importers

State and Territory Government Contract Constraints and Requirements

Procurement approaches vary across the jurisdictions. For example, most buses procured for contracted services in NSW are sourced via a Transport for NSW approved Bus Procurement Panel (BPP), using the state specifications. The bus specification for the BPP has over 1200 items (including vehicle and subcomponent safety systems, fire mitigation, corrosion protection) which is very complex compared to other states.

In Victoria a ceiling price methodology is used for Operators who are procuring buses. Under clause 6.3, schedule 3 of the Metropolitan Bus Services Contracts (MBSC) and clause 6.3, schedule 2 of the regional Bus Services Contracts (RBSC), the Department of Transport and Planning sets the New Vehicle Value each Contract Year based on the average new bus purchase price of the previous year plus a 2% indexation allowance. This back casting and 2% indexation do not consider the hyperinflationary environment that the industry is operating in. It is near impossible to purchase an Australian manufactured bus under the current FY2024/2025 ceiling price.

The Bus Industry Needs Government Assistance

Suppliers run the very real risk of running at a loss or are already occurring significant losses despite having full order books.

What we are seeking from the Australian Government

> **A national approach** to the rollout of Zero Emission Transport across Australia to avoid all the issues noted in the report by the Australasian Railway Association[2].
> **A level playing field with the rail industry[3]** – including:
> Establishment of an Office of National Bus Industry Coordination to lead a national and coordinated approach to strengthen Australia's bus and coach industry,
> Development of a Bus and Coach Procurement Strategy to support industry productivity and facilitate opportunities for the bus supplier industry to create skilled jobs in all supply chain areas.
> Appointment of a Bus Industry Advocate to industry access export and government supply opportunities.
>
> **Immediate assistance** on a range of issues such as targeted immigration, federal grants, federal funding to support training of technicians as we transition to high voltage ZEB's, subsidies to mitigate unprecedented increases in freight & shipping costs etc.
> **Speed up** allowing qualified immigrant workers to fill workforce gaps by simplifying the visa process and prioritizing the economy's needs. Meanwhile, increasing the hours international students are allowed to work can benefit both students and industries, providing them with more opportunities to contribute to the economy and gain valuable work experience. This move can also attract more diverse students to study in Australia and further expand the manufacturing workforce.
> **Fund a publicity campaign** to attract young people to the priority trades[4] identified in Australian Apprenticeship Priority List.
> **Prioritisation** of supporting bus and coach supply chain under the National Reconstruction Fund and timely access to this fund. This is to support all local businesses in the ongoing supply of buses for Australia, whether manufacturing, component supply or CBU.
> **Leadership in the "de-risking" of the industry** with respect to state government procurement practices (e.g., the TfNSW Supplier Panel Deed of Supply is too onerous for OEM's & local body builders to meet the compliance requirements for the limited number of vehicles sales – so onerous that Mercedes Benz cited this as one of the reasons it has "paused" sales of buses & coaches in Australia). An annual national bus replacement schedule, showing the volumes to be replaced at specific periods and harmonizing the annual volume, would benefit the supply chain allowing them to prepare the necessary infrastructure and train personnel with a long-term view.

What we are seeking from the State and Territory Governments

> **Recognition of the inflationary impacts** (CPI, Producer Price Index and Wages), supply chain and skill shortage issues on bus and coach supply.

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[2] Australasian Railway Association (2023) Benefits of a National Local Procurement Policy. https://ara.net.au/category/publication/

[3] While rail manufacturing and supply sector generates $2.4 billion in revenue per year the manufacturing of the completed bus contributes $5 billion is to the Australian economy each year and close to $1.5 billion in supplies and services to keep the bus operational and delivering services. While the rail industry supports more than 4,000 jobs, many of which are in regional areas, bus and coach manufacturing employs more than 10,000 people in Australia in outer metropolitan and regional areas.

[4] https://ministers.dewr.gov.au/oconnor/more-assistance-apprentices-and-employers-address-skills-shortages

- **Quarterly review** of 'price movements' in contracts
- **Ensure Rise and Fall provisions,** where they exist in contracts, are responsive to the rapid nature of price and cost fluctuations.
- **Timely cost recovery mechanisms** are included in contracts.
- Develop and implement an **effective and equitable management mechanism** to respond to inflationary pressures and supply chain constraints both for existing and future contracts.
- **Input to a national Zero Emission Bus Roadmap** – clearly detailing the procurement pipeline of bus and coach transition to zero allowing manufacturers to invest in capacity and capability building.
- Working with the Australian Government **develop a national approach** and framework for social procurement with clear and transparent guidance for industry on assessment, evaluation, and valuation.
- Working with the Australian Government, **agree a national local content definition** and policy that supports Australian jobs in all areas of the supply chain without the increase costs, constrained investment and inefficiency that flows from concisely defined definitions.

THOUSANDS OF LOCAL JOBS ARE AT RISK.

About the Bus and Coach Industry in Australia

The Supply Chain Explained

The Australian bus supply chain consists of multiple elements, specifically:

- Engineering design
- Local manufacturing
- Local assembly
- Importation of complete buses through Australian suppliers
- Component manufacturing and supply
- Ongoing services (maintenance)

The bus and coach industry as a whole are an important contributor to the Australian economy. The industry contributes to a heavy vehicle automotive manufacturing labour skill set that goes beyond just building buses and coaches. The industry is also leading the transition to zero emission heavy vehicles in Australia.

Local employment

The BIC estimates[5] that the supplier sector employs more than 10,000 people in Australia including a strong network of Australian and global component suppliers (e.g., public transport seating and air conditioning units) that support the build of a bus. Most global suppliers have setup businesses in Australia. There can more than 100 1st, 2nd and 3rd tier manufacturing and component supply companies (local and international) that contribute to the final assembly of a single bus.

Queensland is the epicentre of bus suppliers followed by Melbourne, Sydney and Perth. Due to local content requirements of some state governments some suppliers have manufacturing and assembly facilities in multiple states impacting financial sustainability.

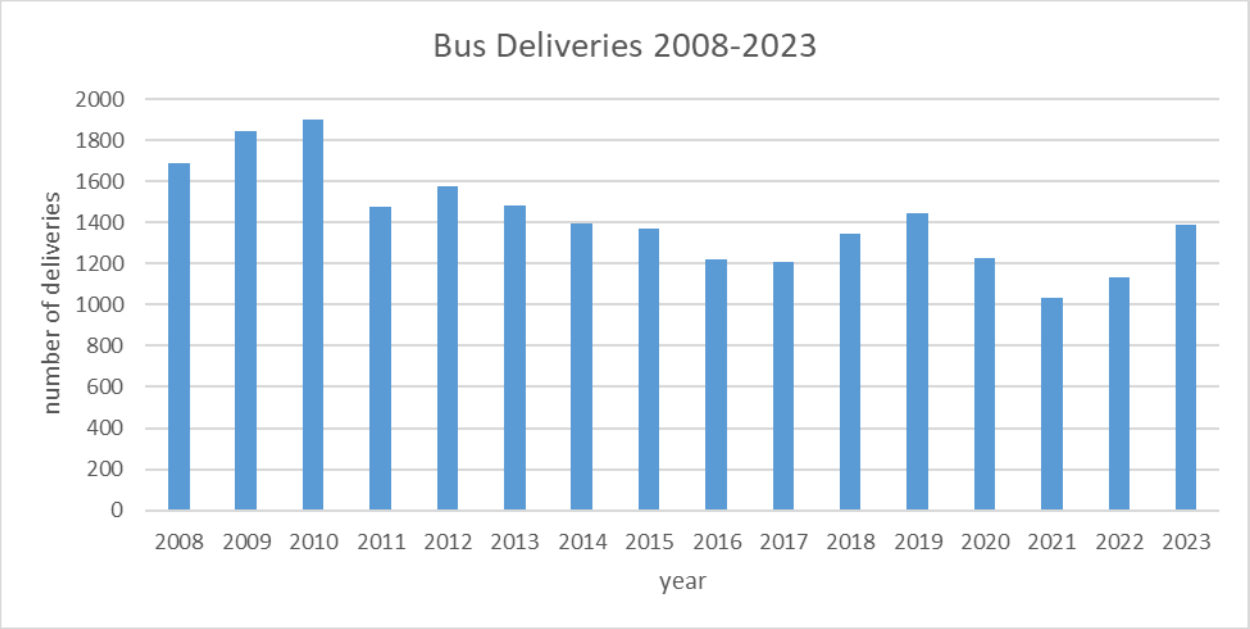
Economic contribution

In the manufacturing, assembly, and supply of the completed buses, $5 billion is contributed to the Australian economy each year with another $1.5 billion in supplies and services to keep the bus operational. Between 2008-2023 there were on average 1400[6] bus and coach deliveries a year.

In 2021 and 2022 bus and coach delivery numbers were well below the long-term average with only 1032 and 1132 deliveries made respectively. This was partially due to supply chain issues. It also reflects the development and introduction of zero emission bus policies at the state and territory level which impacted government procurement processes. This situation is expected to reverse shortly now these policies are in place. Variability in the supply pipeline has implications for manufacturers and suppliers to attract, retain and train staff, invest in innovation or seek export opportunities.

[5] The Bus Industry Confederation (2021) Moving People – Australian Bus and Couch Industry: A snapshot https://movingpeople.com.au/industry-stats/

[6] https://movingpeople.com.au/wp-content/uploads/doc/BIC0055.pdf (Sept 2021) and Australasian Bus and Coach Magazine



Trends in the local supply chain

Less than 20 years ago 100% of buses and coaches were manufactured in Australia. By 2020, 88.9% of public transport passenger route service buses and 59.6% of school buses were manufactured in Australia, the majority built by Australian body manufacturers on a European or Asian chassis; the remainder being fully imported buses and coaches primarily from Asia, with some from Europe and South America. In 2023, just 64% of buses (school and route) delivered in Australia were manufactured here.

Buses for the Australian Market

The Australian bus and coach supply chain has in some ways been protected by its size in terms of total sales and deliveries in a global sense and by Australian Design Rules (ADR) and National Heavy Vehicle Regulator (NHVR) standards and some unique state-based vehicle standards. These rules and standards, which require re-engineering of international factory requirements combined with the Australian markets practice of early adoption of new safety technologies, have resulted in Australian manufactured and Completely Built Up (CBU) buses and coaches being among the safest in the world.

Australian built buses are believed to be more robust than those produced overseas, built to withstand harsh environments including gravel roads and extreme temperatures. An Australian bus on average has a 25-year life span. Overseas the average is XXXXX.

Procurement

The bus and coach supply sector can be seasonal in nature with sales and deliveries significantly reliant on the public transport and school bus procurement by state and territory governments.

The procurement process can often be affected by short term sharp increases in demand for bus passenger services caused by increases in fuel and living costs; the long-term impact of congestion in an ever-increasing urban Australia; electoral cycle priorities; regulated vehicle replacement programs; average age of fleet and maximum age regulations; and the rise and fall of the Australian dollar. These fluctuations affect the ability of the supply chain to remain at a constant level and support local jobs on a consistent basis.

State and territory government policy

The state and territory governments have varying levels of ambition when it comes to transitioning to zero emission buses. NSW was at one point the most ambitious declaring its entire fleet of diesel buses (8000 buses) would be transitioned to zero emissions by 2030. This was subsequently pushed out

to 2047.

Table 2 details the State and Territory Government Zero Emission Bus Policies and Fleet Sizes

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Table 2 details the State and Territory Government Zero Emission Bus Policies and Fleet Sizes

NSW	Transition of the state's 8,000 plus diesel and natural gas public transport buses to be completed in stages. The transition will be complete in Greater Sydney by 2035, in Outer Metropolitan regions by 2040, and in Regional NSW by 2047.
Victoria	All new public transport buses ordered from 1 July 2025 will be zero emission. Current fleet approximately 4500 buses. State committed to net zero by 2050. ZEB transition plan to be released mid-late 2024.
Queensland	Every new TransLink funded bus added to the fleet to be a zero-emission bus from 2025 in Southeast Queensland. Regional Queensland will start the zero emissions bus journey soon after. State committed to net zero by 2050. Approximately 2,500 Translink funded buses operating in SE QLD.
Western Australia	Transperth operates a fleet of around 1500 buses. Recent budget commitment for 130 new ZEBs. State committed to net zero by 2050.
South Australia	Target to make SA's bus fleet 100 per cent electric by 2050. Adelaide Metro's is a publicly owned fleet of almost 1000 buses
Tasmania	Net zero emissions from 2030. Currently small trial of Battery Electric and Fuel Cell Electric buses (6 buses in total). 229 buses in Metro Tas Fleet and approximately 250 in the Kinetic Fleet.
Northern Territory	Fleet of approximately 190. The territory is 'investigating the feasibility of trailing low and zero emission buses' from 2021-26.
ACT	Policy of zero-emissions fleet by 2040. 106 ZEBs procured for delivery 2023-2026.Current fleet size 450 buses

These policies currently only apply to the existing public transport fleet. As yet no jurisdiction has announced a policy for transitioning the school bus fleet. Most announcements also do not consider fleet growth needed to respond to population change. Further they do not address increased mode shift to public transport due to both the cost-of-living crisis and the policies being proposed to address transport emissions and congestion e.g. the National Urban Policy and the Commonwealths Transport and Infrastructure Net Zero Roadmap.

Workforce

The bus supply chain is facing increased concerns with a shortage of skilled labour like many other local supply and manufacturing industries. Jobs and Skills Australia's 2023 Skills Priority List Key Findings Report revealed that 80% of automotive and engineering trade worker occupations were in shortage. Panel beaters, vehicle body builders, vehicle trimmers, vehicle painters, auto electricians and diesel motor mechanics have been in national shortage in 2022 and 2023. Across all industries and occupations in June 2024 recruitment difficulty is highest amongst manufacturing (63% of employers attempting to recruit) and for trades and technicians (75% of employers trying to recruit). Consequently, there is an immediate requirement for skilled workers in this industry.