



# State of Electric Vehicles 2024



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## 01 Introduction

The last 18 months has been one of the most significant periods in Australia's EV transition.

In 2024, the Federal Government passed legislation to introduce a New Vehicle Efficiency Standard (NVES) for light vehicles. To be implemented from 2025, the NVES will play a significant role in helping Australians have more choices in cost-competitive low and zero-emission options, including electric vehicles.

The need for a New Vehicle Efficiency Standard is two-fold: i) helping Australians to access the best low and zero emission vehicles to reduce their transport costs; and ii) reducing our national carbon emissions.

With our country highly dependent on foreign fuel, Australians are exposed to the volatile global oil market, and too often have to pay for it at the fuel pump. Electric vehicles offer Australians the opportunity to significantly reduce their fuel bills, while maximising the use of Australian-made energy.

The average Australian drives around 40 kilometres per day, however, those living in outer suburbs or regional areas drive even greater distances and stand to save much more from the switch to EVs due to their lower running costs.

The second major benefit of the NVES is its role in cutting our national carbon emissions. Transport makes up about one-fifth of Australia's emissions, with the vast majority of emissions coming from cars, followed by trucks. Based on current trends, it is likely that the transport sector will become Australia's top emitting sector in the near future, as other sectors of the economy – such as energy – rapidly decarbonise. While much of the technology is already available to decarbonise transport, NVES will help Australians to decarbonise our transport sector by providing them options to reduce the carbon emissions from their vehicles.

Globally, the adoption of EVs continues to increase, with EVs now comprising over 18 percent of new light vehicle sales around the world.<sup>1</sup> In Australia, EV uptake has hit new records each year, reflecting increased recognition of their significant economic, environmental and health advantages. In 2024, Australians have already purchased over 100,000 EVs – an annual record.

<sup>1</sup> In line with the same definition adopted by the IEA and other international bodies, electric vehicles (EVs) include both Battery Electric Vehicles (BEVs) and Plug-in Hybrid Electric Vehicle (PHEVs).

Another crucial element that contributed to recent EV growth in Australia has been the expansion of our country's national charging network. As of July 2024, there were over 1,000 locations across the country offering fast or ultra-fast charging. The EVC strongly recommends continued investment in public charging through initiatives such as kerbside charging and local governments providing publicly available charging. Alongside continued growth of public charging, governments need to continue examining opportunities to provide charging opportunities to Australians without access to off-street parking and those living in multi-storey buildings.

## Challenges and setbacks

While the passing of the NVES and increasing appetite for EVs are both promising developments, over the past 18 months the sector has also faced several setbacks and challenges.

First, the EVC notes that several states, namely New South Wales, Victoria, Queensland and South Australia, have prematurely ceased offering purchase incentives for EVs. To meet sales and carbon emission reduction targets set by these governments, the EVC strongly encourages all Australian governments to actively support EV uptake until at least 30 percent EV sales are achieved nationally and/or our recommended national target of 1 million EVs in the fleet is achieved.

This approach is informed by international examples where sustained incentives have successfully driven EV adoption to critical mass. Beyond this threshold, the EV market is expected to sustain itself without the need for such financial incentives – in part due to the expectation that even greater uptake of EVs will be achieved in comparable markets, over the same time period.

Purchase incentives are always temporary, but when withdrawn prematurely, and abruptly, they risk shocking the market. A planned and progressive phaseout of incentives should be carried out to smooth the transition. For now, however, Australian governments need to come back to the table and consider reasonable incentives to continue to drive uptake, including support for Australians to purchase used EVs.

In making the transition to low and zero-emission vehicles, Australians need to be supported with accurate information on the options and benefits in making the transition. As we see across many fields, the rise of mis- and disinformation on electric vehicles stymies the transition and undermines community action. Governments, industry and non-government organisations need to acknowledge the impact of mis- and disinformation and work together to counteract it with evidence and compelling, narrative-based stories that explain how the transition to electric vehicles will help each Australian.

## Looking forward on EV policy

While the EV transition has seen significant progress in recent years, there remains a need for all levels of government to develop nationally consistent policies to increase supply of EVs into the country and alleviate barriers to electrification across the transport sector.

The Federal Government's development of a Net Zero Transport Roadmap offers promise. The EVC has been clear that across the transport system, a holistic net zero transport strategy must be developed. This needs to consider options across the Avoid-Shift-Improve framework to reduce emissions.<sup>2</sup> All three approaches will be required, but many international experts and agencies recognise that the electrification of transport is the key technology shift required in this sector to achieve net zero, and that this transition must occur in the next 10-15 years for new vehicle sales to provide sufficient time for the entire fleet to transition to electric drivetrains by, or ideally before 2050.

Strong and sustained supply and demand policies are necessary to drive EV adoption across all segments:



It is equally important that we harness the significant economic opportunities that the global EV transition provides for Australia, including pathways to develop new industries within the battery and vehicle value chains. An embrace of the holistic lifecycle of EVs and nuanced industry policy in this globalised economy offers the promise of domestic jobs in battery manufacturing and recycling and EV technical skills, to name just a few. The EVC strongly encourages federal and state governments to grasp these opportunities for the benefit of economic resilience and local jobs.

## State of EVs 2024

The 2024 State of EVs report provides our latest annual assessment of Australian federal, state and territory government's performance with respect to electric vehicle policy, combined with a local market update on light EV sales, model availability and charging infrastructure deployment.

This edition builds on our 2023 Australian Electric Vehicle Industry Recap, released in February 2024. We will continue to release full-year industry recaps in the first quarter of each year and State of EVs reports in the second-half of each year.

The Electric Vehicle Council looks forward to continuing to work with Australian governments, industry, consumers and our members to champion Australia's transition to an electrified transport sector.

## 02 Our Team at the EVC



**Samantha Johnson**  
Chief Executive Officer  
(interim)



**Aman Gaur**  
Head of Legal, Policy & Advocacy



**Ross De Rango**  
Head of Energy & Infrastructure



**Natalie Thompson**  
Chief of Staff / Senior Policy Manager



**Jake Whitehead**  
Chief Scientist



**Cameron Rimington**  
Senior Policy Adviser



**Michael Shaughnessy**  
EV Infrastructure Officer



**Umair Afzal**  
Programs and Insights Officer



**Mark Stephens**  
EV Data Analyst



**Graeme Trebley**  
Partnership Manager



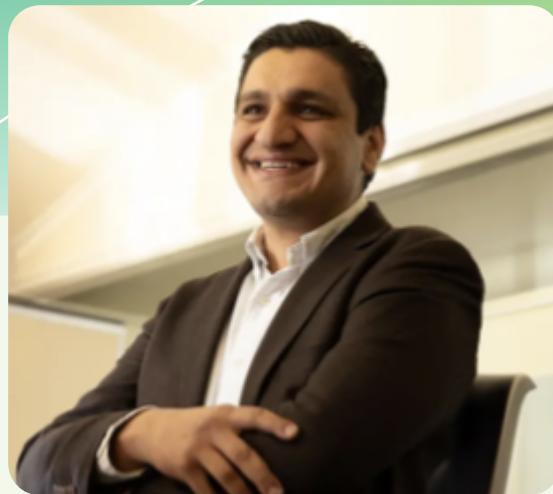
**Nicole Beer**  
Events Manager



**Bailey Sievwright**  
Operations Officer

## The End of an Era at the Electric Vehicle Council

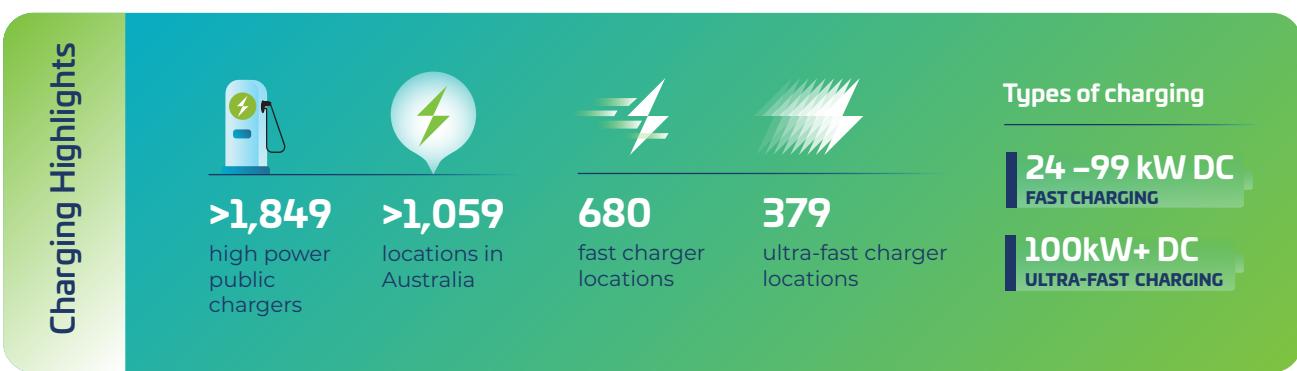
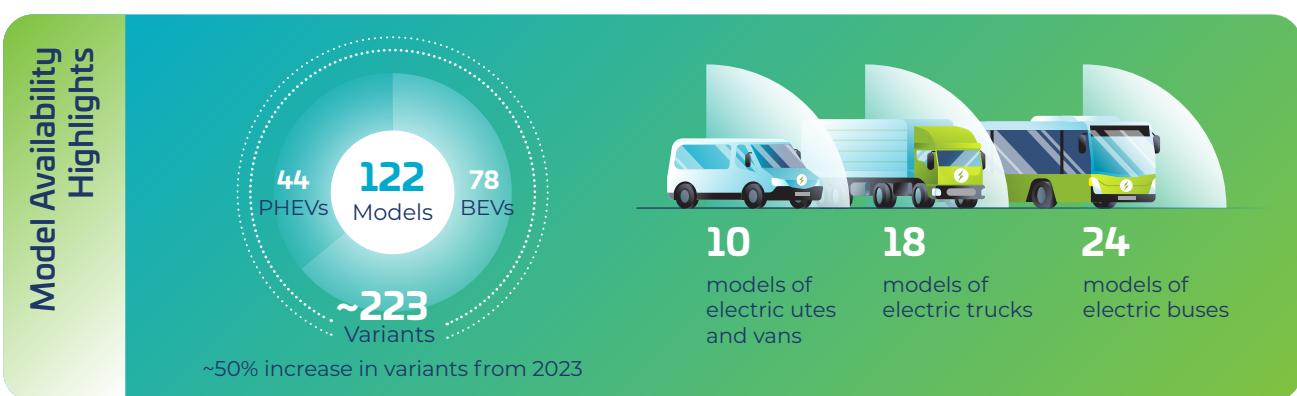
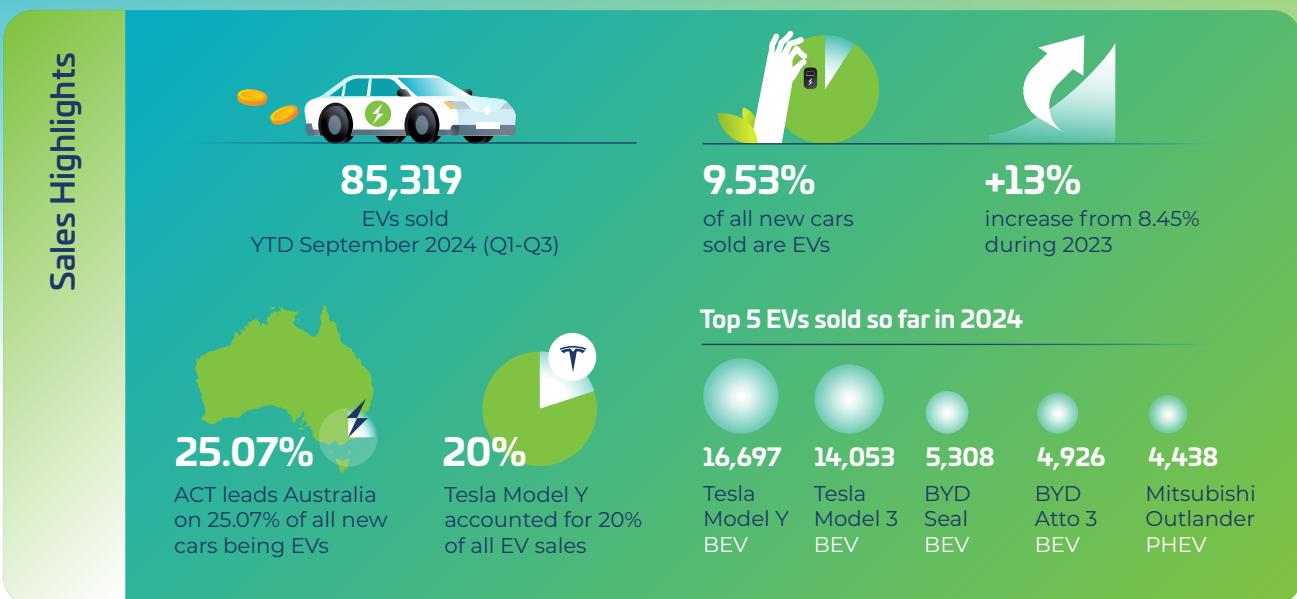
The Electric Vehicle Council would like to take the opportunity to acknowledge the significant contributions our former CEO, Behyad Jafari, has made to the EV industry, and broader EV policy space in Australia, over the better part of the last decade.



During Behyad's time as CEO of the EVC he played an instrumental role in building support for the build out of a national charging network, for the implementation of a range of EV incentive programs across federal, state and territory governments, and of course, supported the passage of Australia's New Vehicle Efficiency Standard – a key policy objective since the founding of our organisation – among championing many other wins for the EV market.

Behyad finished his time leading the EVC in mid-2024. The entire EVC team and our members wish him all the best and look forward to continuing to work with him in his new role in our industry.

# 03 2024 Highlights

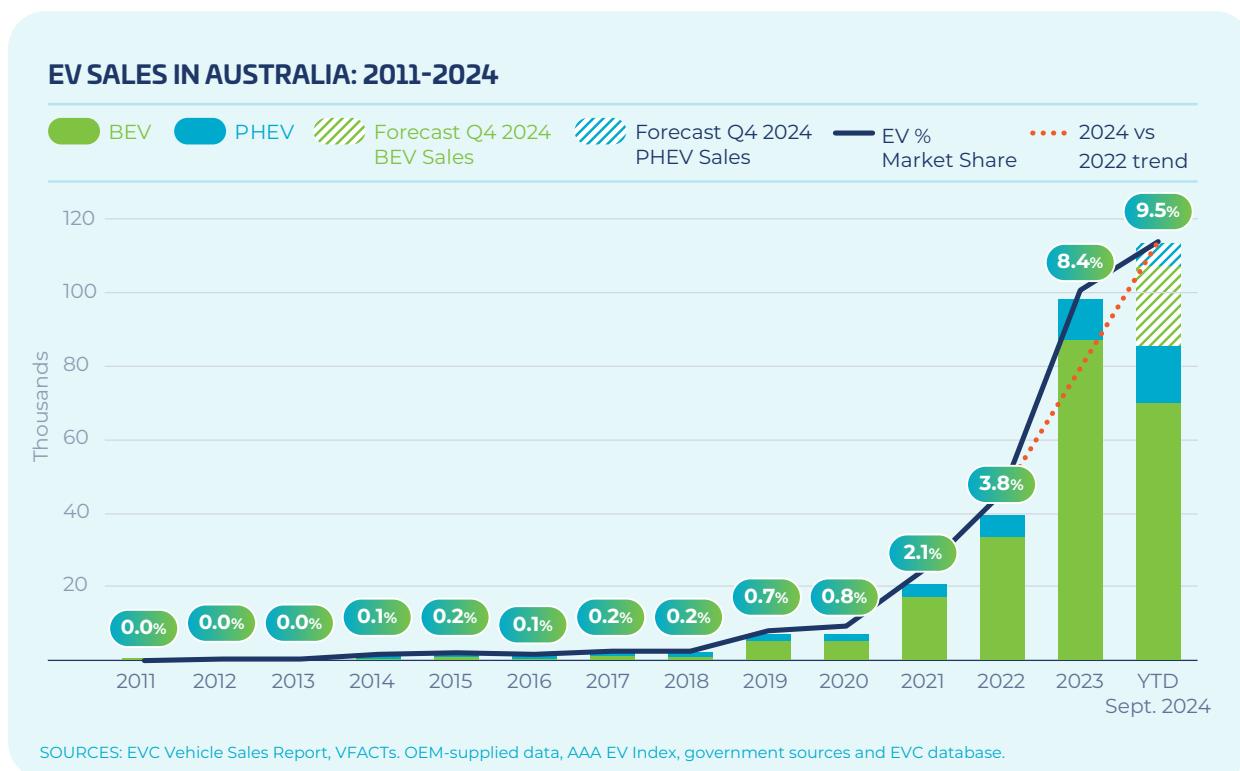




## 3.1 Electric Vehicle Sales

Electric vehicle sales in Australia have shown steady growth, with 85,319 units sold by the end of September 2024. EVs now account for 9.5% of all new car sales in Australia, marking an increase from 8.4% in 2023 and a 150% increase in market share compared with 2022. With this momentum, light EV sales will hit approximately 110,000 units by year-end – which is a major milestone for the Australian market.

Despite ongoing efforts to run a scare campaign on EVs, the data below clearly shows continuing upward trajectory of EV sales for both BEVs and PHEVs. While the growth in EV market share in 2024 is lower than 2023, this is in part due to a blockbuster year for EVs in 2023, which was well above the long-term trend, and exceeded even optimistic expectations, thanks to the availability of several incentive programs, including the important and effective Fringe Benefits Tax exemption for EVs. If we treat 2023 as an outlier, the red dotted line below shows 2024 continuing to be a strong upward trend compared to 2022. If this trend continues, we expect total EV sales to reach at least 15-19% in 2026.



Since May, 2024, the EVC – and a number of its members – have been blocked from accessing VFACTS data. The EVC has made several attempts to purchase this data, with various reasons provided as to why it is no longer available to our organisation. Unfortunately, we have no reason to believe the EVC will regain access to VFACTS in the future.

This situation demonstrates why there is a clear need for Australian vehicles sales data to be freely available to all stakeholders, including the general public. Without publicly available data, there is a lack of clarity about of the nation's largest industries, leading to a continuing risk of misinformation and disinformation regarding the transition EVs.

For now, the EVC is using a range of public sources - some of which are based on VFACTS figures published in the public domain – combined with member-supplied data, and historical data, to inform the vehicle sales section of this report.

The EVC is willing to work with any and all parties to ensure there is accurate and transparent vehicle sales data publicly available to support business and consumer decisions across Australia's new vehicle market.

Until the federal government stands up a publicly-available new vehicle sales dashboard, the EVC has established an independent vehicle sales report – which currently provides exclusive, free and public access to Tesla and Polestar new vehicle sales. All car makers are welcome to provide their data through this reporting tool on a non-exclusive basis. There is no charge to participate, and the EVC will include all vehicles – regardless of fuel type – as long as the data is submitted by our reporting deadlines.

## What are the different types of electric vehicles (EVs)?



### BEV

#### Battery electric vehicle

A BEV is 100% powered by a battery 100% of the time



### PHEV

#### Plug-in hybrid electric vehicle

A PHEV has two power trains - a battery and an internal combustion engine vehicle. The driver can choose to drive on the battery to a certain range or use the engine.

For more definitions, please see the Glossary at Appendix A.

Despite progress underway, Australia's EV adoption rate remains below the global average and continues to trail behind the EU, China, and the UK. Norway remains the jurisdiction with the highest EV adoption rate in the world at approximately 90% market share.

New Zealand, which previously held a significantly higher EV market share than Australia, experienced a decline in the first quarter of 2024 following cessation of government incentives and the introduction of road user charges. While sales in New Zealand have rebounded slightly in recent months, this fluctuation underscores the ongoing need for policy certainty to support the transition to a sustainable transport sector and achieve emissions reduction objectives.

## EV MARKET SHARE BY COUNTRY: YTD 2024 VS 2023 VS 2022



June YTD 2024 data only available for Australia, New Zealand, Norway. All other countries are at ~April 2024, with global average based on IEA forecast for 2024.

Sources: International Energy Agency, New Zealand Ministry of Transport, China Association of Automobile Manufacturers, Thai Department of Land Transport, InsideEVs, Cleantechnica, EVolumes, Electric Autonomy Canada, EV Database NZ, EVC Vehicle Sales Report, AAA EV Index, VFACTS.

## Australia's Electric Car Fleet

Encouragingly, Australia is on track to pass 300,000 EVs in the national vehicle fleet in early 2025, however, sustained policy support will be required to continue on this current trajectory. Australia has over 19 million light vehicles to decarbonise so we still remain only at the very beginning of this journey. In total, about 1.5% of Australia's light vehicle fleet are now EVs.



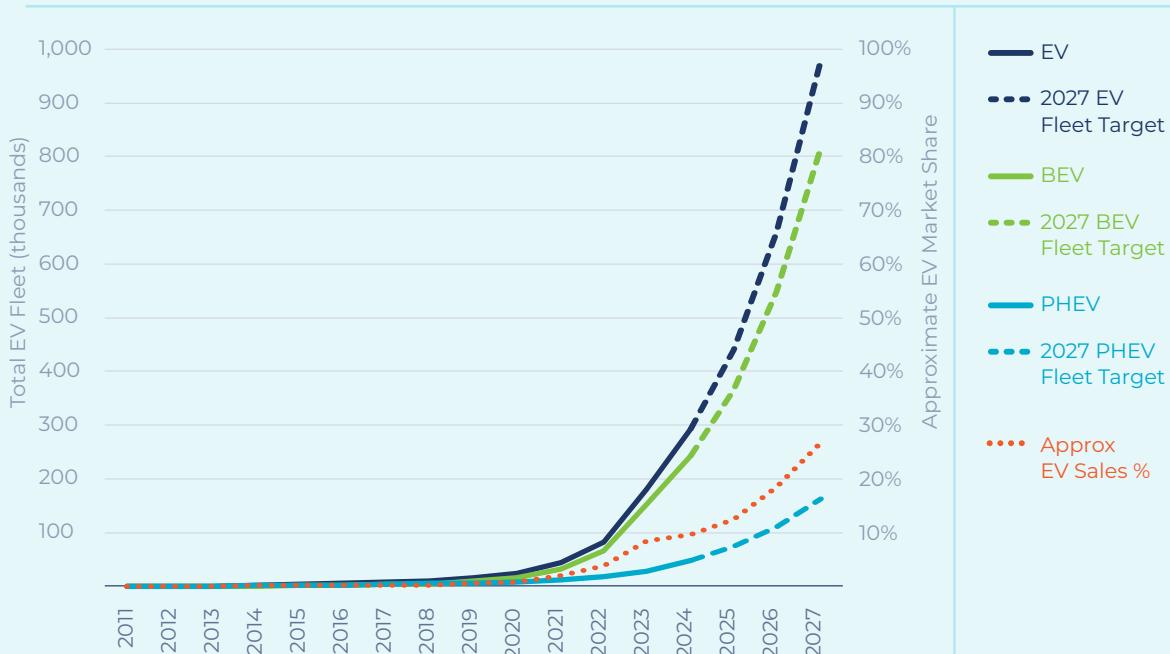
## AUSTRALIA'S GROWING ELECTRIC CAR FLEET



In order to meet climate targets, the EVC expects that Australia will need over 50% of all new car sales to be EVs by 2030. We continue to advocate for a national target of 1 million EVs by the end of 2027, in order to align with more than 50% of new car sales being EVs (BEVs and PHEVs) by 2030.

Achieving this target will require a substantial increase in the supply of EV models into the country. This will be supported by the New Vehicle Efficiency Standard set to begin in 2025, but should be paired with continuing and new incentive policies to support consumers in making the switch.

## WHERE THE EV FLEET NEEDS TO GO IN THE NEXT 4 YEARS TO ALIGN WITH NET ZERO BY 2050



Note: the figures provided above are not forecasts but illustrate a feasible scenario that Australia will need to follow to provide the best possible chance of achieving our climate targets, including net zero by 2050, through lower transport sector emissions.



## Top Selling Electric Car Models

As at end Q3 2024, the Australian EV market remains predominantly led by battery-electric vehicles (BEVs), though an increase in plug-in hybrid electric vehicle (PHEV) share has been observed across certain segments due to the introduction of additional PHEV models into the market.

Over the past six years the ratio of BEVs to PHEVs has remained relatively consistent, and this is expected to largely continue over the coming years. PHEVs have a role to play in driving down emissions for certain segments of the market and/or applications. It is important governments, fleet operator and car-makers incentivise the charging of these vehicles to maximise both the potential cost and emissions savings.

### BEV VS PHEV SPLIT

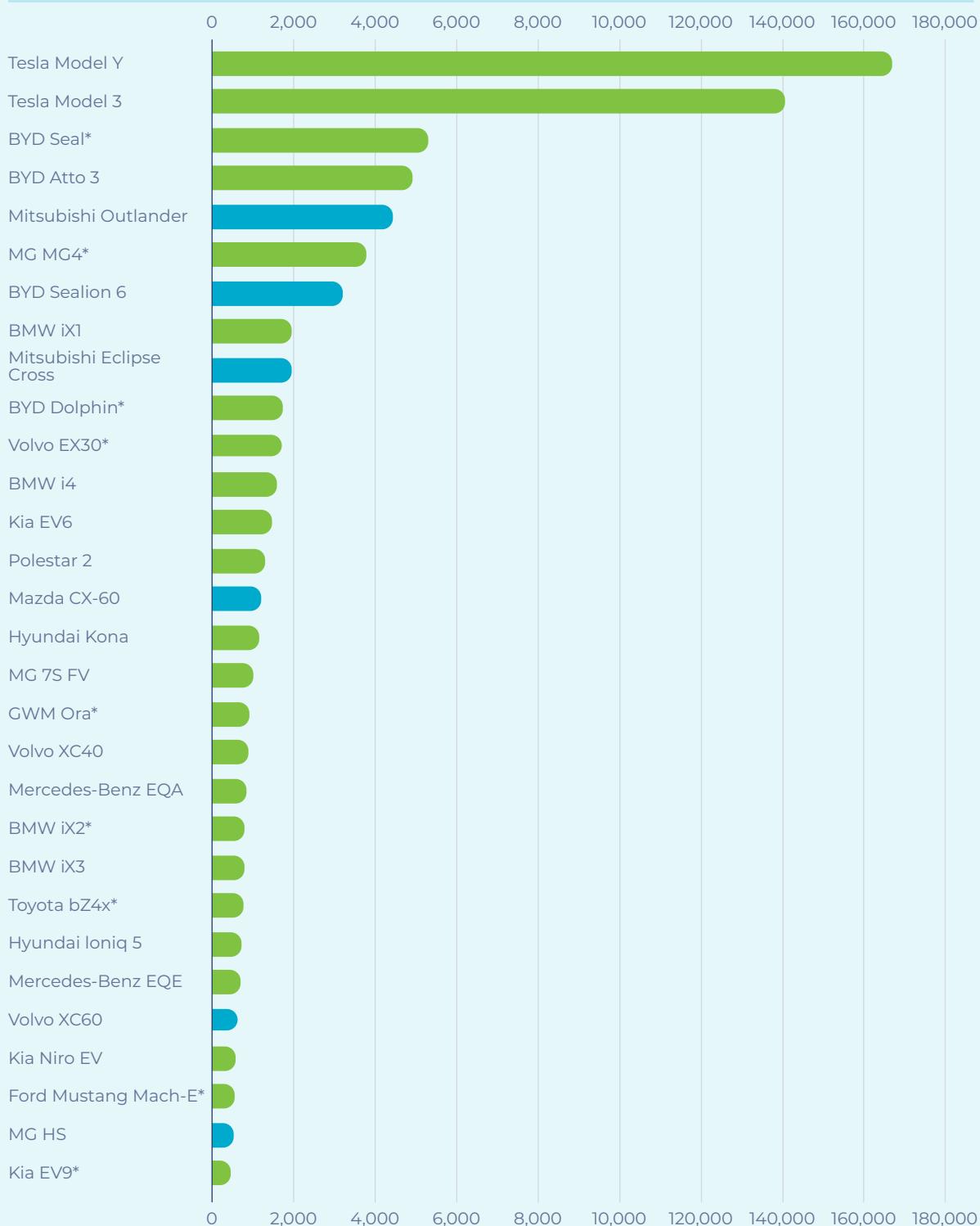


SOURCES: EVC Vehicle Sales Report; AAA EV Index, VFACTS.

EV sales so far in 2024 have been led by Tesla and BYD, which collectively represent over 50% of annual sales (YTD September). In advance of the introduction of the new vehicle efficiency standard in 2025, we are already seeing an expansion in the number of EV models available in Australia, and a broadening in consumer demand. More than 20 EV models are on track to sell at least 1,000 vehicles each by the end of 2024.

## TOP 30 EV MODELS IN AUSTRALIA: YTD SEPTEMBER 2024

 BEV     PHEV



\*Represents models introduced to Australia since the State of EVs 2023 report.

Sources: EVC Vehicle Sales Report, public reporting of VFACTS data.



## Electric Car Sales Across States and Territories

As shown below, the ACT continues to lead the country on EV sales (as a proportion of new vehicle sales) at 25.1% at September 2024, followed by Queensland

(9.6%), New South Wales (9.5%), Victoria (9.4%), Western Australia (9.3%), South Australia (8.2%), Tasmania (8.0%) and the Northern Territory (4.0%).

In percentage terms, the Northern Territory had the largest increase in market share by 25% in 2024 (YTD September) compared to 2023 (from 3.3% to 4.0%), followed by South Australia with a 21% increase in market share from 6.8% to 8.2%.



**NEW EV SALES SHARE BY STATE/TERRITORY: 2023 VS YTD SEPTEMBER 2024**

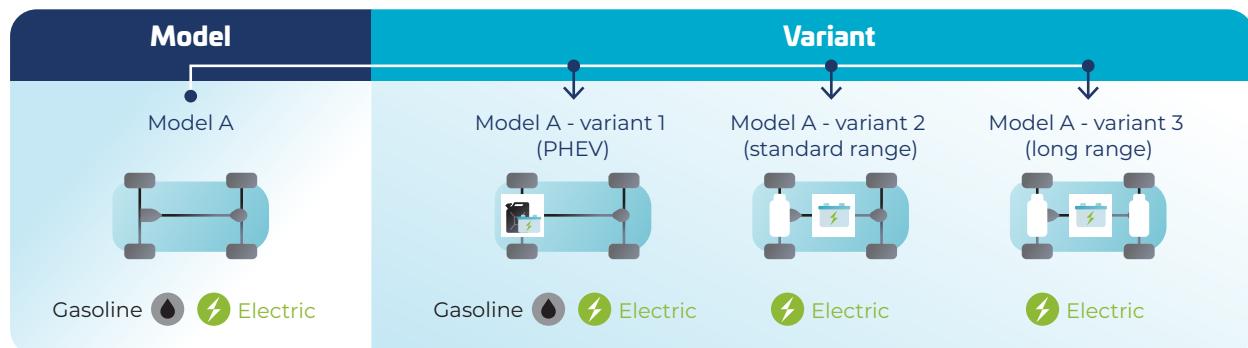


Sources: EVC Vehicle Sales Report, AAA EV Index, VFACTS.



## 3.2 Electric Vehicle Model Availability

The introduction of a New Vehicle Efficiency Standard for light electric vehicles will help to increase model availability and supply of more affordable vehicles into the country in coming years. As outlined below, there are segments where the availability of suitable electric vehicle models remains limited.



For an updated list of models available in Australia in 2024, please refer to Appendix D.

Please note that figures on model availability across vehicle segments are based on industry submissions and desktop research.

## Electric Cars



The number of electric cars available on the Australian market has continued to increase into 2024. There are now 122 electric car models. This includes 78 BEVs and 44 PHEVs. In total, we have identified approximately 220 EV model variants currently available to order in Australia. This is around a 50% increase compared to the 2023 State of EVs report and demonstrates an increasing expansion in the diversity of electric models available.

We expect this trend to continue as the New Vehicle Efficiency Standard starts in 2025, but there is no doubt that the announcement of this policy - following the 2022 Federal Election - has already started to positively shape the supply of new vehicles into Australia towards more low and zero emission models.



## Electric Vans and Utes

In addition to electric cars, we are also starting to see an expansion of electric vans and utes enter the Australian market. In total, there are now 10 electric utes and vans that can be ordered. Some of these vehicles are locally remanufactured from left-hand drive to right-hand drive to help fill this gap in the market. Unfortunately, however, the companies that are creating local jobs in carrying out these conversions are not currently included in the New Vehicle Efficiency Standard, and therefore, do not receive the associated incentives to increase supply.

The EVC encourages the Federal Government to proactively seek to include remanufactured utes and vans into the NVES, so that this alternative supply model can be encouraged to help fill in any gaps in the market and assist with driving down costs for both local remanufacturers and Australian consumers.



## Electric Trucks

There are roughly 18 distinct models of electric trucks (over 4.5t) currently on offer in the Australian market, although variations in weight, wheelbase and body type increase the range of available options. Rigid electric trucks predominate accounting for over 80% of available variants, mainly in the light-/medium-duty segments..



Electric trucks are attracting strong interest from commercial fleets for their potential to reduce fuel, lower total ownership costs and attract customers seeking zero emission freight. Given current battery technology and vehicle range, most models are targeted at urban delivery and 'last mile' applications. Nevertheless, 2024 has seen the arrival of more heavy-duty rigid trucks and prime mover models, opening up a greater range of options for first-mover fleets.

The market's growth remains limited by Australia's unique regulatory requirements that are not aligned with international standards. For example, Australia's maximum allowable truck width remains 5cm narrower than the USA, effectively preventing many American models from being sold in Australia.

State, Territory and local governments also have a key role to play in advocating for national

regulatory reforms and facilitating access for electric trucks on state and local government roads. Specifically, relaxing mass limits and creating consistent and permanent road access rules across jurisdictions is a pre-condition for attracting a greater range of electric truck models to our market.

Without these changes, Australia will continue to miss out on the widest range of electric freight vehicles that are available overseas.



## Electric Buses

There are around 24 different electric bus models available on the Australian market. The electric offering has expanded into coach and minibus applications, but approximately 60% of finished bus models are targeted at urban transit use cases.

Although private charter and coach operators are active parts of the market, the Australian bus sector remains dominated by large government fleets and public transport operators. As a result, many government contracts include local content requirements that are seeing an increasing share of electric buses manufactured onshore in Australia – a possible template for the wider economic opportunities presented by the shift to EVs in other vehicle segments.

With all state and territory governments now committed to net zero, we can expect the electric bus segment to continue steady growth year on year.

## Electric Motorcycles, Scooters And Micromobility



The State of EVs is not reporting on electric motorcycles, scooters and micromobility this year due to a lack of reliable data. The EVC is actively exploring opportunities to provide more information and reporting on these types of vehicles.

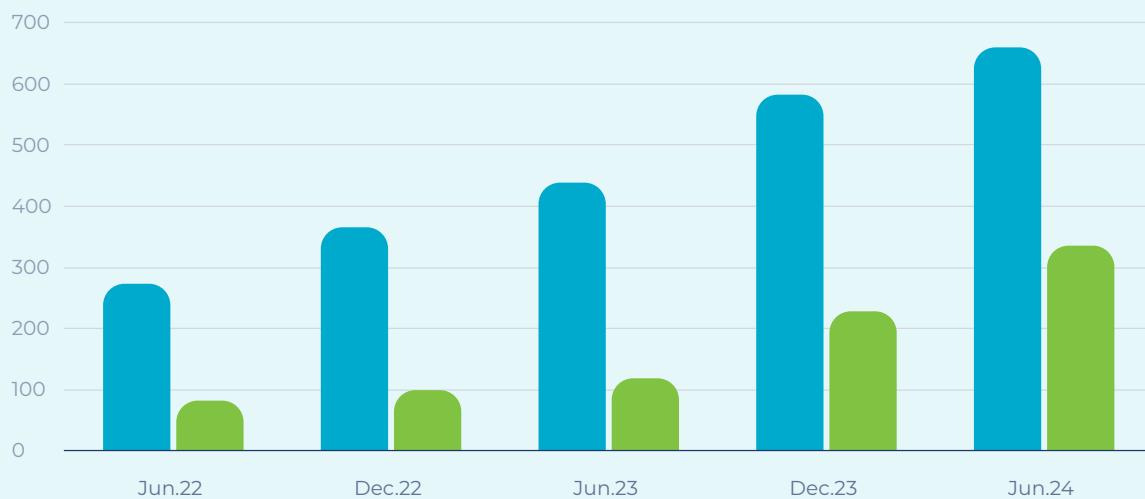


### 3.3 Charging Infrastructure

Public charging equipment in Australia continues to expand. As of mid-2024, the number of high-power public charging locations was 1,059, while the number of individual high power public EV chargers in service was 1,849. This is a 90% increase in high-power charging locations compared to the same time last year. Note that many of these locations have multiple charging bays in place to support charging multiple cars simultaneously.

**FAST AND ULTRA-FAST PUBLIC CHARGING LOCATIONS OVER TIME**

(Fast (24kW-99kW DC)   Ultra-fast (100kW DC and above)





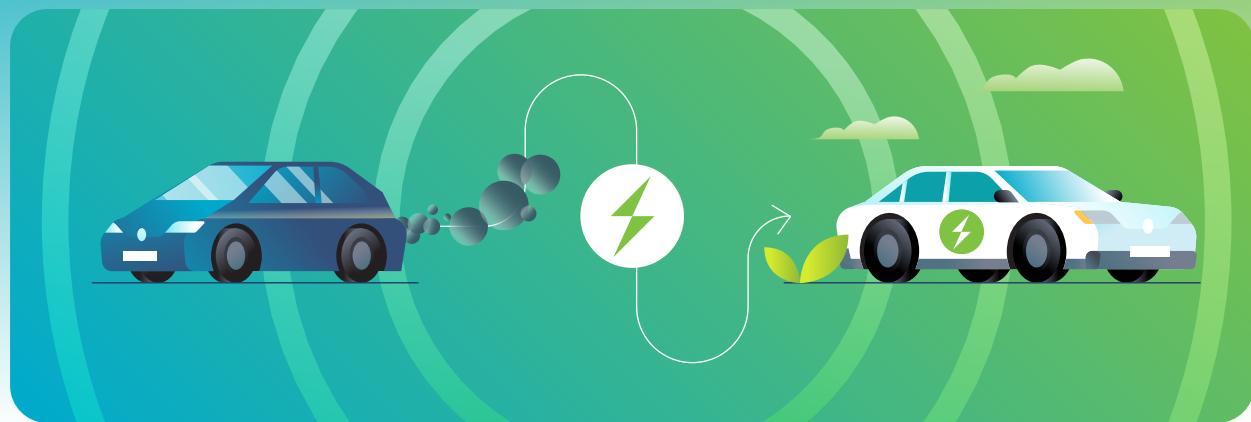
## Public Charging Locations by Region and Power Level as of Mid-2024

Plans for the continued rollout of high-power public charging continue to be announced. Hundreds of locations have already been deployed, and hundreds more are planned for deployment in the coming years to fill the gaps.

Below we have included a breakdown of the number of fast and ultra-fast charging sites across Australia.

<b>State</b>	<b>Fast - 24-99kW</b>	<b>Ultra-fast - 100kW+</b>	<b>Total</b>
ACT	15	8	23
NSW	186	108	294
NT	9	3	12
QLD	140	52	192
SA	48	70	118
TAS	39	6	45
VIC	194	74	268
WA	49	58	107
<b>Location/Site - TOTAL</b>	<b>680</b>	<b>379</b>	<b>1,059</b>

Note that the data included above is drawn from a range of sources to inform this report. The Electric Vehicle Council has made reasonable efforts to ensure accuracy, but we have not independently verified every location.



## 04 Assessment of EV Transition

Each year the EVC reports on developments in the Australian EV market and makes an assessment of each jurisdiction's performance with respect to accelerating the EV transition. To provide guidance to governments on how they are tracking against different EV-related issues, here we provide a breakdown of how we rate their performance on a scale of 0 - 100% across 37 metrics. Each of these metrics are then weighted to provide subcategory scores out of 10, and in turn, an overall summary score out of 10.

This year we have adopted a new structure for this assessment, including a dedicated section on energy infrastructure. As opposed to previous years, charging infrastructure initiatives are assessed outside of the traditional vehicle segments e.g. light vehicles, buses, etc. As a result, the scores for these segments do not consider charging infrastructure.

The 2024 assessment covers the following policy areas:

- General ambition
- Light vehicles
- Trucks & vans
- Buses
- Micromobility
- Industry development
- Energy infrastructure

	FED	ACT	NSW	NT	QLD	SA	TAS	VIC	WA
General Ambition	<b>8/10</b>	<b>8/10</b>	<b>9/10</b>	<b>8/10</b>	<b>7/10</b>	<b>8/10</b>	<b>6/10</b>	<b>8/10</b>	<b>8/10</b>
Light Vehicles	<b>8/10</b>	<b>9/10</b>	<b>6/10</b>	<b>2/10</b>	<b>3/10</b>	<b>3/10</b>	<b>2/10</b>	<b>3/10</b>	<b>5/10</b>
Trucks & Vans	<b>5/10</b>	<b>1/10</b>	<b>6/10</b>	<b>0/10</b>	<b>2/10</b>	<b>1/10</b>	<b>1/10</b>	<b>2/10</b>	<b>0/10</b>
Buses	<b>3/10</b>	<b>7/10</b>	<b>8/10</b>	<b>1/10</b>	<b>6/10</b>	<b>1/10</b>	<b>3/10</b>	<b>8/10</b>	<b>7/10</b>
Micromobility	<b>2/10</b>	<b>8/10</b>	<b>3/10</b>	<b>6/10</b>	<b>8/10</b>	<b>4/10</b>	<b>8/10</b>	<b>4/10</b>	<b>8/10</b>
Industry Development	<b>8/10</b>	<b>4/10</b>	<b>6/10</b>	<b>5/10</b>	<b>7/10</b>	<b>5/10</b>	<b>5/10</b>	<b>6/10</b>	<b>7/10</b>
Energy Infrastructure	<b>7/10</b>	<b>9/10</b>	<b>10/10</b>	<b>2/10</b>	<b>5/10</b>	<b>6/10</b>	<b>4/10</b>	<b>5/10</b>	<b>6/10</b>
<b>Overall</b>									
	<b>8/10</b>	<b>8/10</b>	<b>9/10</b>	<b>4/10</b>	<b>6/10</b>	<b>5/10</b>	<b>5/10</b>	<b>6/10</b>	<b>7/10</b>

In addition to our assessment of state, territory and federal governments, the 2024 edition of State of EVs also includes a new section dedicated to Distributed Network Service Providers (DNSPs).

Finally, we have included a Local Government section outlining the key measures that can be introduced in order to facilitate their own communities to shift to more sustainable transport modes and electrify their homes.



## 4.1 General Ambition

The general ambition of each jurisdiction is assessed based on overall targets, clear policy commitments, and alignment with achieving Australia's climate goals. This includes evaluating whether governments have set clear, measurable targets for EV adoption, such as sales targets, fleet transition goals, or emissions reduction plans specifically for the transport sector.

High ambition is demonstrated through strong commitments to increase EV uptake across all segments of transport, backed by comprehensive strategies that include regulatory support, financial incentives, and infrastructure investment.



### EV Strategy

STRATEGY

A dedicated EV strategy is crucial to signal a government commitment to electrification, providing a roadmap for industry and consumers. Strong EV strategies should include specific supply and demand-side measures for enhancing EV adoption, and a clear pathway for implementation. They should also set clear targets that align with national and international climate goals, ensuring long-term consistency in policy direction. While most Australian states and territories have developed EV strategies, the depth and clarity of these strategies varies considerably.

Importantly, EV strategies should not be solely limited to light vehicles. There is a pressing need for the electrification of heavy vehicles to be considered and planned for as part of EV strategies, or separate electric heavy vehicle strategies. This continues to be a major gap across most jurisdictions in Australia.

## Net Zero Commitment

STRATEGY

Effective net-zero commitments require ambitious targets that align with the latest climate science and include clear plans for reducing emissions across all sectors, including transport. A strong commitment includes interim targets and measures to ensure accountability and progress toward long-term goals.

This section of the scorecard assesses whether jurisdictions have established clear transport-specific targets as part of their broader net-zero strategies, and how these commitments translate into progress for the EV transition.

## Intergovernmental Cooperation and Regulatory Harmonisation

REGULATION

The gold standard for intergovernmental cooperation involves active collaboration between federal, state, and territory governments to develop and implement nationally consistent policies that support the widespread adoption of EVs across Australia.

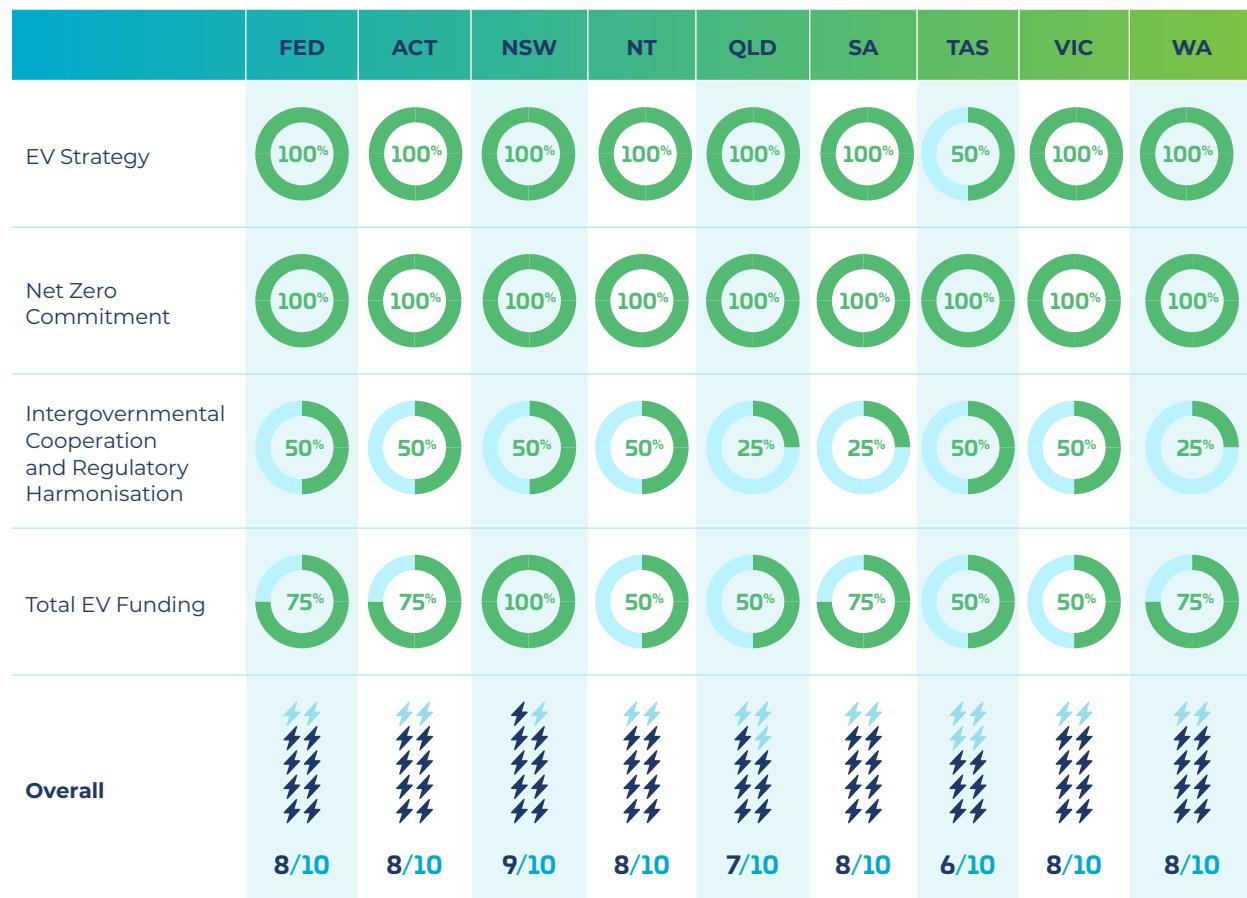
This includes efforts to harmonise regulations for EVs and associated infrastructure, ensuring they align with international standards. Such harmonisation reduces the complexity for manufacturers and consumers, enabling a smoother transition to EVs and resisting implementation of unique standards that burden local consumers and industry.

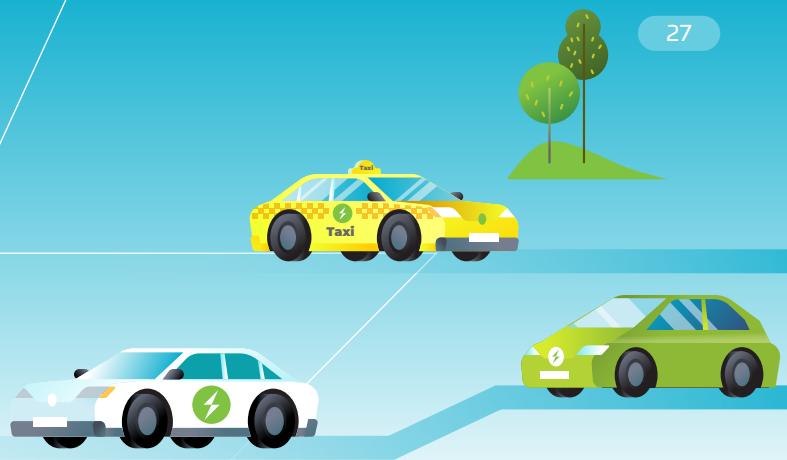
## Total EV Funding

STRATEGY

This assessment evaluates the level of investment that governments allocate to support the EV transition, taking into account the size, population, and economic capacity of each jurisdiction. Recognising that not all states and territories have the same budgetary resources, this approach aims to ensure a fair comparison of funding efforts relative to each jurisdiction's scale.

Investments are assessed across key areas such as financial incentives for EVs across transport segments, charging infrastructure development, and support for local industry development.





## 4.2 Light Vehicles

The majority of transport emissions come from light vehicles – cars, utes and vans, which makes this a critical transport segment to decarbonise. Fortunately, unlike other hard-to-abate sectors of the economy, the solutions for reducing the emissions of Australia's light vehicle fleet are largely already available internationally. Below we provide insight into how different governments across Australia are supporting the electrification of light vehicles, including through their own fleet transitions.



### Progress Towards Sales Target

STRATEGY

The gold standard for EV sales targets involves setting clear future targets for EV sales that align with broader emission reduction commitments. Effective targets include measurable milestones, interim benchmarks, and a firm commitment to achieving a high percentage of EV sales - ideally over 90% - by 2035. This clarity provides a strong market signal, encouraging manufacturers to prioritise EV supply into Australia and giving consumers and industry confidence in the EV market.

It should be noted that the Federal Government has not set an EV target, and this has been accounted for scoring this metric. Equally, however, the development of a New Vehicle Efficiency Standard for Australia, has also been accounted for when grading the Federal Government. Although the NVES does not set targets for any specific vehicle fuel type, it is clear that an increase in the supply of low and zero emission vehicles, via the NVES, will be critical for achieving EV and emissions targets around the country.

#### What is the New Vehicle Efficiency Standard?

After a decade of inaction on transport emission policy, soon after its election in 2022, the current Federal Government announced its intention to design and implement a new vehicle efficiency standard – otherwise referred to as a fuel efficiency standard.

This standard does not limit the type of vehicles that can be sold. The standard sets

a target for the average emissions of all vehicles sold by each manufacturer. Vehicle weight and size is also accounted for, with car makers that sell predominantly larger cars having a higher target. Over time, these average targets are reduced, encouraging car makers to supply more low and zero emission vehicles into the market.

Until now, Australia had been one of the few major economies without this type of policy – together with Russia. With the introduction of the New Vehicle Efficiency Standard in 2025, we finally have the chance to catch up to comparable countries around the world, like the US, and ensure Australians receive cleaner, more efficient vehicles, that importantly are cheaper to run, and in the case of EVs, provide the opportunity to be powered using 100% Australian-made energy.

The EVC supports the design of the New Vehicle Efficiency Standard and will continue to work with the Government and our members to support its introduction in 2025. You can find out more at: [www.cleancars.gov.au](http://www.cleancars.gov.au)

## Progress Towards Government Fleet Target

STRATEGY

Government fleet targets should go beyond merely setting ambitious fleet transition goals to demonstrating tangible progress towards transitioning fleets to EVs. As operators of some of the largest vehicle fleets in the country, governments have a unique opportunity to lead by example. Governments should not only aim for a high percentage - ideally nearing 100% - of new fleet purchases being electric by 2027, but also provide a regular update of their progress toward achieving these goals. Ensuring transparency of the implementation of a fleet transition strategy helps demonstrate the opportunities and challenges of large-scale fleet electrification and can serve to encourage private fleet operators to follow suit.

Jurisdiction	Federal	ACT	NSW	NT	QLD	SA	TAS	VIC	WA
<b>EV Sales Target</b>	N/A	80-90% of new car sales by 2030 (100% from 2035)	50% of new car sales by 2031	N/A	50% passenger vehicle sales by 2030; 100% by 2036	100% by 2040	N/A	50% of new light vehicle sales by 2030	N/A
<b>Government Fleet Target</b>	'Low Emission Vehicles' to be 75% of new passenger vehicles by 2025	100% electric passenger fleet leases (ongoing)	100% passenger EVs by 2030 (50% by 2026)	100% light EV purchases (ongoing) (suitability exclusions apply)	100% passenger vehicles by 2026 (eligibility exclusions apply)	N/A	100% by 2030	100% by 2035	50% light/med vehicles by 2025



## Strategy to Accelerate Fleet Turnover (Targeting High Polluting Vehicles)

STRATEGY

While encouraging the adoption of new electric vehicles is important, governments in the medium-term will also need to turn their attention to how to accelerate turnover of the fleet to phase-out older, less safe and high-polluting vehicles in order to achieve net zero by 2050. Governments should be planning to implement a clear strategy that introduces rebates or other incentives to accelerate the electrification of the national vehicle fleet. The strategy should focus on incentivising the exchange of older, high-polluting petrol and diesel vehicles for new and used electric vehicles.



## Availability of Financial Incentives for Households

INCENTIVES

The gold standard for a financial incentive for households includes the provision of rebates, zero interest loans, or other incentives that effectively reduce the upfront costs associated with purchasing an electric vehicle. These measures are important to help to make EVs more affordable and accessible to a broader range of consumers, helping to overcome one of the primary barriers to EV adoption as we move from early adopters. The eligibility threshold for these incentives should be pegged to the Luxury Car Tax (LCT) threshold (at minimum).

Governments should also consider how financial incentives could be provided to support the purchase of used EVs. This will not only benefit the majority of Australians that do not purchase new cars, but it will also assist in reducing depreciation of new EVs by generating additional demand for used EVs, while building consumer confidence.

### Light EV Incentives Across Australia

Wondering which incentives are available to help with purchasing an electric vehicle? Currently, each Australian State and Territory has its own set of policies with different features and eligibility rules, making it challenging to understand.

Below we have provided an overview of what incentives you could be eligible for in each State and Territory, when purchasing an electric vehicle for \$50,000:

Government	ACT	NSW	NT	QLD	SA	TAS	VIC	WA
Party	Labor	Labor	Country Liberal	LNP	Labor	Liberal	Labor	Labor
<b>Registration discount over 5 years<sup>a</sup></b>	\$0	\$0	\$990	~\$388	\$423	\$0	\$500	\$0
<b>Stamp duty discount</b>	\$1,626	\$0	\$1,500 (3.0%)	\$500 (1.0%)	\$0	\$0	\$0	\$0

<b>Rebate</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,500
<b>Zero interest loan interest savings</b>	\$4,092	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Approximate total incentive value</b>	\$7,731	\$0	\$2,465	\$888	\$423	\$0	\$500	\$3,500
<b>Rebate / zero interest loan vehicle price limit</b>	\$91,387 (Fuel Efficient Luxury Car Tax Limit)	N/A	N/A	N/A	N/A	N/A	N/A	\$70,000
<b>Rebate available to businesses</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Yes
<b>Rebate available under a novated lease</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Yes

Unfortunately, a number of states have either prematurely ended their EV incentive programs or failed to commit additional funding. As with all new technologies, temporary incentives are important for encouraging consumer demand and the EV market will require continuing support to achieve the EVC's recommended target of 1 million EVs by the end of 2027 to align with state, territory and national climate targets – including EV targets.

### Supplementary notes:

<b>ACT</b>	A registration discount based on two-years free registration ceased on 30 June 2024. The ACT has now transitioned to an emissions-based registration for all vehicles (see the <a href="#">Climate Choices website</a> ). Stamp duty discount based on savings from ZEV duty waiver compared to duty payable on vehicle with average environmental performance.  Zero-interest loan savings assumes 5% interest rate on a normal car loan; noting most car loan interest rates are significantly above this at present.
<b>NSW</b>	New South Wales' EV rebate ended on the 1st of January 2024. Currently there are no EV incentives available in New South Wales. EVs (and some hybrids) receive a concession on NSW motor vehicle tax.
<b>NT</b>	Free registration valid until 30 June 2027. Find out more on the <a href="#">NT Government website</a> .  Stamp duty discount available for all vehicles up to \$50,000. If the sale price/market value of the vehicle is over \$50,000, stamp duty is payable on the amount over \$50,000.
<b>QLD</b>	Vehicle registration and stamp duty discounts continue, however, the Queensland rebate ended in mid-2024 due to the exhaustion of committed funding.
<b>SA</b>	South Australia's EV rebate ended on the 1st of January, 2024. The State's vehicle registration discount is ongoing but limited to 3 years.
<b>TAS</b>	As of late 2024, there are no rebates available in Tasmania due to the exhaustion of committed funding.
<b>VIC</b>	Victoria ended its EV rebate scheme in mid-2023. The state's vehicle registration discount is ongoing.
<b>WA</b>	Visit the <a href="#">Zero Emission Vehicle Rebate</a> FAQs for more information on the purchase incentive.

## Fringe Benefits Exemption

The fringe benefits tax (FBT) exemption is a major EV incentive that was introduced in 2022 by the Federal Government. This exemption removes FBT for EVs under \$91,387 (LCT threshold for fuel efficient vehicles), which makes EVs more affordable and attractive for fleets, companies and eligible individuals acquiring EVs through novated leasing.

This policy helps reduce the cost of an EV to be at parity with an equivalent petrol or diesel car, and has already generated significant demand for EVs. A list of vehicles eligible for the FBT exemption is available in Appendix D.

An important co-benefit of this incentive is that vehicles subject to FBT – such as fleet vehicles – as normally on-sold to the used car market every 3-4 years. This means that the large influx in EVs through this program will translate to a growing used EV market for more Australians to benefit from over the coming 12-24 months.

## Incentives for Fleets and Businesses (Public and Private)

INCENTIVES

The gold standard for incentives targeting fleets and businesses includes providing tailored rebates, tax exemptions, and other financial support mechanisms designed to encourage the early adoption of electric vehicles. These measures are particularly important for fleet operators as they often purchase vehicles in larger volumes, making them critical players in driving overall market demand.

Fleet-specific programs should facilitate the procurement of a wide range of electric vehicle types, from passenger cars to light commercial vehicles. Incentives should be structured to ensure that EV adoption by fleets contributes to the development of a viable second-hand market, helping to make EVs more affordable and accessible to consumers.

## Available Behavioural Incentives

INCENTIVES

Governments should also be leveraging behavioural incentives to support EV adoption. This could include a range of non-monetary measures, such as preferential lane access for EVs, the creation of zero-emission zones in urban centres where only EVs can operate, and exemptions or discounts on toll roads. Such incentives not only make EV ownership more attractive but also help to reduce emissions in areas with high traffic density.

## Education and Awareness Initiatives

AWARENESS



Governments have a key role to ensure that accurate and up-to-date information reaches a wide audience, actively dispelling myths and encouraging the adoption of EVs.

Active campaigns and communication measures, including social media, are necessary to increase consumer awareness of the benefits of EV technology, address misconceptions and misinformation, and provide EV experience opportunities.

Building awareness of the benefits of EVs is crucial for building confidence and garnering community support for the transition to an electrified transport system. It is essential that the real advantages of Australia's shift towards EVs are communicated clearly and effectively to both businesses and the general public:

- Clear and accessible resources should be made available to businesses and the general public, outlining the financial incentives, such as rebates and tax exemptions that are on offer.
- Guidance on charging infrastructure should include details on the availability and accessibility of public charging stations and home charging options for different EV drivers.
- In-person drive days or events where individuals can experience EVs firsthand can be highly effective in dispelling misconceptions and showcasing the advantages of electric vehicles, including personal suitability, performance, and environmental benefits.

## Data Sharing on Vehicle Registration and Driving/Charging Patterns

AWARENESS

Another critical element to light EV policy is data sharing. This should include the regular publication of anonymised vehicle registration data, ideally at a detailed geographic level such as postcode. This data should be updated frequently, such as monthly, and made accessible through a centralised national portal, like the National Map. By sharing this information, governments can increase transparency about EV deployment, support better-informed policy decisions, and enable more precise planning for future transport and energy needs.

An open approach to data sharing enables industry stakeholders, research institutions, and governments across the country to make data-driven decisions. It is also critical for refining models of EV adoption and charging behaviour, ensuring that the infrastructure roll-out keeps pace with demand across Australia.

## Light Vehicles Scorecard





## 4.3 Trucks & Vans

Almost every product in Australia has been on a truck at some point. Road freight is essential to the Australian economy but also a major source of emissions, accounting for almost a quarter of transport's carbon footprint. It also contributes to the carbon footprint of most Australian companies, the largest of which will start reporting on their corporate emissions from 2025. For Australia to have a reasonable chance of achieving a 43% reduction in emissions across the economy by 2030 (and net zero by 2050), decarbonising road freight is crucial.

While the National EV Strategy has been a welcome development for light vehicles, there remain notable gaps with respect to commercial freight vehicles. This includes a clear absence of national leadership to support transitioning heavier vehicle fleets to EVs, including through regulatory reform, demand-side incentives and the build-out of key infrastructure.

Beyond emissions benefits, the transition to more efficient electric trucks and vans delivers other co-benefits, including:

- Lower fuel costs (often a fleet's largest operating expense), improved fuel security and less price volatility versus diesel
- Improved driving experience (less vibration, a near silent drive train, less driver fatigue) and potential for better driver attraction/retention
- Fewer moving parts, simplified maintenance and potentially more uptime
- Reduced air pollution and related health impacts (e.g. asthma, respiratory disease, cancer)
- Noise reduction, particularly in built-up urban areas.

Australia's trucking task is growing and diverse. The shift to EVs will follow different pathways for different duty cycles with some accelerating faster than others. Electrification is already progressing in last-mile delivery applications particularly light-duty vehicles, which account for over 80% of the trucks on Australian roads.

Speed of Electrification			
DUTY CYCLE	Last Mile Delivery	Point-to-Point	Long-Haul
TASK	Final deliveries to end customers	Freight between distribution centres, transfer hubs & intermediate locations	Interstate freight and linehaul services
LOAD	Fast moving consumer goods; postal services; B2B deliveries	Fresh food/cold chain; bulky goods; containerised freight; industrial products	Commodities; raw materials; containerised freight; agricultural products
ROUTE	Typically short-range urban routes with multiple stops, in high traffic areas	Mostly highway driving on medium-haul regional routes	Long-distance, cross-border highway driving across multiple driver shifts with limited downtime
VEHICLE SEGMENT	Vans, light rigid trucks, semi-trailers	Heavy rigid trucks, semi-trailers, B-/A-double configurations	Various multi-trailer combinations and road trains

## Electric Vehicle Strategy for Freight

STRATEGY

The gold standard for an electric vehicle strategy for freight requires targeted commitments and actions to increase the availability and adoption of electric trucks and vans. This may include sales mandates, fleet targets, emissions regulations or phase-out dates, aligned with emission reduction goals.

A successful strategy should also consider the diverse needs of the freight industry, acknowledging variations in duty cycles, business models, transported goods, and operational requirements. This means supporting a range of electric vehicle types, from light commercial vehicles to heavy-duty trucks, to meet the specific needs of each application.

Successful strategies should actively work to remove regulatory barriers that limit the supply of electric trucks or damage the operational viability of integrating them into commercial fleets.

**Transport & Infrastructure Net Zero Roadmap:** As one of six sectoral strategies to achieve a 43% reduction in greenhouse gas emissions by 2030, the Australian Government is progressing a roadmap and action plan for the transport sector. The Roadmap offers a valuable opportunity to get electric freight strategy right. To date, however, the Roadmap has not articulated targeted actions or commitments aligned

with national emissions reduction goals. While other energy sources – such as Low Carbon Liquid Fuels and hybridisation – will play a role, battery electric is the primary pathway for decarbonising land transport and is the only option that is commercially viable for many freight applications in the near term. The EVC has made further recommendations for the Roadmap, available at: <https://electricvehiclecouncil.com.au/submissions/evc-submission-to-transport-and-infrastructure-roadmap/>

## Accelerating Fleet Turnover

STRATEGY

The gold standard for accelerating fleet turnover is providing tailored incentives, tax concessions, and other financial support designed to accelerate the electrification of the on-road vehicle fleet. Strategies should focus on incentivising the replacement of diesel vehicles for new electric trucks and vans, either through ‘cash for clunker’-style trade-in programs or lowering cap-ex premiums for new vehicles and their chargers. These incentives are particularly important for larger operators whose fleet renewal strategies can result in large order volumes, driving overall sales and market certainty.

Fleet-specific programs should facilitate procurement of a range of vans and trucks suited to distinct freight applications and aim to minimise any payload penalties compared to equivalent diesel vehicles. Incentives should be structured to ensure that EV adoption by fleets contributes to the development of a viable second-hand truck market, helping to make EV vans and trucks more affordable to other commercial fleets.

**NSW Electric Vehicle Fleets Incentive:** The NSW Government offers periodic grant funding to help fleet operators transition to EVs. The incentive program is designed to cover part of the total cost of ownership gap between a battery-electric vehicle (cars, SUVs, utes & vans, light trucks) and other vehicles. An optional contribution towards EV smart chargers is also available under the scheme. The latest funding round was launched in November 2024 with both a competitive bid funding stream and \$13m in ‘kickstart funding’ for fleets with fewer vehicles. Further information can be accessed at the [NSW Climate and Energy Action website](#).

## Availability of Financial Incentives

INCENTIVES

The gold standard for incentives targeting truck and van customers are policies that reduce the price premium of EVs over their diesel equivalents. While electric trucks and vans reduce running costs over their lifetime, the upfront sticker price of current electric models remains prohibitive for many smaller operators. Point-of-sale incentives (e.g. vouchers, GST/stamp duty exemptions), tax concessions (e.g. instant asset write-off, accelerated depreciation), low-interest finance or registration discounts can all lower the barriers to purchasing a commercial EV.

The vast majority of Australian trucks are owned by small businesses. Around 70% are owner-operators with just one vehicle but so far, efforts to support electric trucks and vans have largely excluded these owner-drivers. Financing has been fragmented, relying on isolated trials and pilot projects with major corporate fleets. ARENA has been one of the only financiers of heavy EV deployments but grant application processes are too lengthy for smaller fleets and funding amounts are typically not aligned to SME budgets.

This piecemeal approach lacks the scale and consistency needed for large-scale progress. A coordinated and comprehensive funding approach would significantly accelerate the transition among the small fleets that dominate Australia's freight task, helping to establish a robust market for electric trucks and vans.

**IKEA 100% Zero Emission Deliveries:** IKEA Australia is working with delivery partners ([ANC Delivers](#), [Kings/Capital Transport](#) and [All Purpose Transport](#)) to secure its ambition for 100% zero emission truck delivery to customers by 2025. Its delivery partners work with an owner-operator and subcontractor model as they transition IKEA delivery vehicles to electric vans and light/medium-duty trucks. As of November 2024, IKEA and its delivery partners achieved 60% zero emission deliveries, making Australia the seventh most electrified IKEA fleet in the world. You can read more about IKEA's zero emission delivery commitment here: <https://www.ikea.com/au/en/this-is-ikea/climate-environment/100-zero-emission-deliveries-pube48244b0>

## Electric Heavy Vehicle Road Access

REGULATION

The gold standard for improving road access for electric trucks is a supportive regulatory environment that proactively facilitates operations and route-planning for early-adopter fleets. Providing certainty over where the heaviest electric trucks can operate is an essential precondition for increasing sales and strengthening market confidence.

Access restrictions on heavy vehicles (e.g. maximum steer axle masses) disproportionately affect electric trucks and next-generation vehicles that provide superior safety, environmental and efficiency benefits to the community. In recognition of these advantages, road managers should provide regulatory concessions on mass restrictions. Europe generally allows up to 10t on the steer axle and the USA allows 9t (plus an additional 900kg for EVs); in Australia, an initial concession to just 8t would start to give us access to a greater range of electric trucks currently on offer overseas.

Most road managers already have pre-existing arrangements to allow over-mass vehicles on key parts of the network that could be readily adapted for heavy electric trucks. It is critical, however, that concessions and access maps form an integrated network that is operationally useful to trucking fleets. This will require proactive coordination across federal, state and local road managers, otherwise any concessions risk creating a disjointed patchwork of access arrangements.

**Queensland's Zero Emission Heavy Vehicle Network Map:** Since March 2024, Queensland has designated a dedicated access regime for zero emission vehicles that are heavier than their diesel counterparts. The Zero Emission Heavy Vehicle Network Map opens up access to EVs with a steer axle mass as high as 8t to key parts of the freight network in South East Queensland. So far, the network only comprises state-controlled roads but is reportedly the first in a series of access changes, while further research on the scheme's impact is undertaken. More information about the initiative is available [here](#) and the network itself can be viewed as part of the National Heavy Vehicle Regulator's maps here: <https://www.nhvr.gov.au/road-access/route-planner/national-network-map>

## Available Behavioural Incentives

INCENTIVES

The gold standard for behavioural incentives involves offering non-monetary benefits that encourage the use of electric trucks and vans. These can include measures like preferential lane access, the creation of zero-emission zones in urban areas, exemptions from truck curfews and discounts or amnesties from tolls. These measures serve to make commercial EVs more attractive and practical for businesses, reducing costs and offering an operational advantage to fleets adopting the cleanest vehicle technology.

## Education and Awareness Initiatives

AWARENESS

The gold standard in education and awareness initiatives for electric trucks and vans involves proactive, targeted campaigns to inform fleet businesses about the opportunities of electric

commercial vehicles and how best to take advantage of them. This includes addressing common misconceptions (e.g. 'range anxiety', charging infrastructure, model availability) and highlighting the financial and reputational benefits of transitioning to electric trucks.

Programs should also provide opportunities for businesses to experience electric trucks firsthand, such as through test drives or demonstrations, which can be instrumental in building industry confidence. Supplementary initiatives like vehicle pollution labels can help illustrate the environmental benefits of switching to electric options, making the case for EV freight even stronger

**Tasmania's Smarter Fleets Program:** Since 2015, the Tasmanian Government has taken a proactive approach to raising awareness about EVs. The *Smarter Fleets Program* provides dedicated training, resources and tailored support for fleet managers in their EV transition. The Tasmanian Government funded a dedicated program for heavy vehicle fleets between 2018 and 2020, supporting truck operators in Tasmania to improve efficiency, reduce fuel expenditure and cut their carbon emissions. Participating fleets received tailored advice, including fleet efficiency opportunities and the chance to share technical expertise. More information about the initiative is available here: [https://recfit.tas.gov.au/what\\_is\\_recfit/climate\\_change/electric\\_vehicles/smarter\\_fleets](https://recfit.tas.gov.au/what_is_recfit/climate_change/electric_vehicles/smarter_fleets)

## Data Sharing On Vehicle Registration and Driving/Charging Patterns

AWARENESS

A key element of enabling the transition to electric trucks and vans is the regular publication of anonymised vehicle registration data at a detailed geographic level. Currently, accessing open and detailed information on the existing truck fleet is challenging, which hinders effective planning and coordination for electrification efforts.

A dedicated data-sharing effort coordinated across jurisdictions will serve to increase transparency around freight decarbonisation and provide valuable insights for policy development, planning, and future transport and energy modelling.

## Trucks & Vans Scorecard

	FED	ACT	NSW	NT	QLD	SA	TAS	VIC	WA
Electric Vehicle Strategy for Freight	 50%	 25%	 60%	 0%	 5%	 5%	 10%	 20%	 5%
Strategy to Accelerate Fleet Turnover (High Polluting Vehicles)	 75%	 0%	 80%	 0%	 25%	 0%	 5%	 10%	 10%
Available Financial Incentives	 25%	 0%	 80%	 0%	 0%	 0%	 5%	 0%	 0%
Electric Heavy Vehicle Road Access	 60%	 0%	 60%	 0%	 75%	 30%	 0%	 50%	 0%
Available Behavioural Incentives	 0%	 10%	 0%	 0%	 0%	 0%	 0%	 10%	 0%
Education and Awareness Initiatives	 50%	 30%	 75%	 10%	 20%	 0%	 20%	 0%	 0%
Data Sharing on Vehicle Registration and Driving/Charging Patterns	 60%	 80%	 80%	 50%	 30%	 0%	 50%	 10%	 0%
<b>Overall</b>									
	<b>5/10</b>	<b>1/10</b>	<b>6/10</b>	<b>0/10</b>	<b>2/10</b>	<b>1/10</b>	<b>1/10</b>	<b>2/10</b>	<b>0/10</b>



## 4.4 Buses

Unlike commercial freight vehicles, approximately 80% of buses in Australia are operated by state governments, as part of public transport systems. This makes it crucial to have clear strategies in place that support the integration of electric buses into these networks, as well as their role within broader multi-modal transport systems. Given their widespread presence in urban areas, electrifying bus fleets is essential for reducing emissions (both greenhouse gases and noise) and improving air quality in cities. Their predictable routes and scheduled downtime can make decarbonising buses more straightforward than other heavy vehicles, allowing for efficient charging optimisation strategies and minimal disruption to service.

Nevertheless, Australia's bus market also comprises a wide range of private bus and coach operators, each of which will undertake its own electrification journey. This report assesses policy support for government and private bus fleets alike.

### Electric Vehicle Strategy for Buses

STRATEGY

The gold standard for an electric vehicle strategy for buses requires strong commitments and actions to increase the supply and availability of electric buses in public transit fleets, together with their associated charging infrastructure. The strategy should focus on incentivising turnover of older, polluting diesel vehicles for new electric buses with a firm end-date for new diesel bus purchases. The aim is for the majority of buses to be electrified by the mid-2030s, either via defined procurement milestones or targets for the entire on-road fleet.

Given that all Australian governments have committed to net zero targets, it is essential that they lead the transition by reducing emissions from their own vehicle parc and integrating electric buses into their public transport systems.

## Availability of Financial Incentives

INCENTIVES

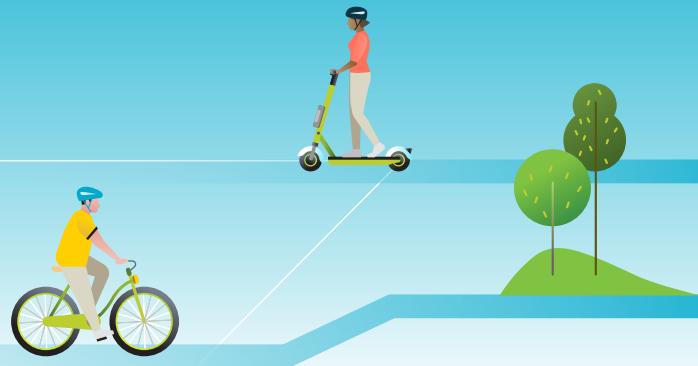
Beyond public transport fleets, governments should also be considering how to support private bus operators to electrify their fleets. Support should include consideration of a range of financial incentives such as rebates, low-interest loans, and tax concessions. Similar to other commercial vehicles, these incentives should be designed to offset the higher capital costs of electrification (for vehicles and charging solutions) and to reduce operational costs (e.g. fuel bills, maintenance, depreciation etc.).

To date, governments have focused on electrifying buses for public transit, but similar support is needed to scale up the electrification of private bus fleets, particularly SMEs and operators servicing regional communities.

**Private Bus Electrification – Tropic Wings:** Cairns-based eco-tourism operator [Tropic Wings](#) has successfully integrated EVs into its fleet, becoming Australia's first provider of electric bus and coach day tours. Tropic Wings has been a leader in bus electrification, launching their first electric bus for tourism operations in and around Cairns in 2019. In 2023, Tropic Wings were successful in launching an ARENA project which has helped to convert 12 of Tropic Wings' buses to electric, together with deploying charging infrastructure and two onsite battery energy storage systems in the near future. Tropic Wing's transition through the 'Sustainable Transport in Tourism' project will offer a blueprint for private tour and charter operators to go electric. The Electric Vehicle Council is the knowledge-sharing partner for this ARENA project. Initial lessons learnt and insights from the project can be found in our first knowledge-sharing report here: <https://arena.gov.au/assets/2024/10/Tropic-Wings-Towards-Sustainable-Transport-In-Tourism-Lessons-Learnt-Report-1.pdf>

### Buses scorecard

	FED	ACT	NSW	NT	QLD	SA	TAS	VIC	WA
Electric Vehicle Strategy for Buses									
Availability of Financial Incentives									
Overall									



## 4.5 Micromobility

Electrified micromobility, such as e-bikes and e-scooters, can play a key role in the transition to a low-emission transport system by offering a clean, efficient alternative to short private car trips. These devices can serve as an important complement to public transport networks, helping to solve the ‘last mile’ challenge and reducing congestion in urban areas. By enabling more people to choose active and flexible travel options, electrified micromobility can decrease dependence on private cars, lower emissions, and contribute to healthier, more connected cities.

### Strategy for Micro-Mobility (Including E-mobility)

STRATEGY

The gold standard for supporting micromobility involves clear commitments and actions to increase the availability and safe use of electric micromobility devices, such as shared e-bikes and e-scooters. This includes providing regulatory settings that permit their use in urban areas and support the development of infrastructure to ensure safe riding conditions. Prioritising the societal and environmental benefits of micromobility, such as reduced congestion and improved air quality, should guide policy decisions. A comprehensive strategy would need to address integration with existing public transport networks, making it easier for people to use e-mobility devices as part of their daily commute.

Micromobility strategy also needs to consider the safety of the devices being sold in Australia and move towards stricter standards to minimise fire risk and other failures.

### Availability of Incentives to Promote Micromobility

INCENTIVES

The gold standard for promoting micromobility includes providing financial incentives, such as rebates, low-interest loans, or tax exemptions, to reduce the upfront and ongoing costs associated with electric micromobility devices. These incentives encourage individuals to choose e-bikes, e-scooters, and other electric micromobility options over private car use, supporting the shift towards active transport. Both Tasmania and Queensland have launched small-scale programs in the past 12 month, and the EVC welcomes the lessons learnt from these incentive schemes to be shared nationally to inform broader micromobility policy.

## Infrastructure Support for Micromobility

INFRASTRUCTURE

By developing a robust infrastructure network, governments can help reduce reliance on private vehicles and create safer, more efficient transport systems. The gold standard for micromobility infrastructure involves coordinated investment in public and workplace charging facilities, safe parking areas, and designated lanes for e-bikes and e-scooters. Infrastructure support is critical for encouraging the use of electric micromobility devices by providing riders with the facilities they need to charge, park, and safely navigate urban spaces.

## Education and Awareness Initiatives

AWARENESS

The gold standard for education and awareness in micromobility includes targeted programs that inform consumers about the benefits of electric micromobility devices, address common misconceptions, and provide opportunities for hands-on experience. Such initiatives should prioritise safety, offering guidance on the proper use of e-bikes and e-scooters and promoting responsible riding practices. Awareness campaigns can highlight how micromobility options can reduce travel costs, improve urban mobility, and contribute to healthier, more active lifestyles. Running events where people are able to trial these devices can also help overcome initial hesitation and build broader acceptance of micromobility as a viable alternative to car travel.

### Micromobility Scorecard

	FED	ACT	NSW	NT	QLD	SA	TAS	VIC	WA
Strategy for Micromobility (Including E-mobility)	 25%	 100%	 25%	 75%	 100%	 50%	 100%	 50%	 100%
Availability of Incentives to Promote Micromobility	 0%	 25%	 0%	 0%	 50%	 0%	 100%	 0%	 0%
Infrastructure Support for Micromobility	 25%	 50%	 50%	 50%	 50%	 25%	 50%	 25%	 50%
Education and Awareness Initiatives	 0%	 50%	 25%	 25%	 75%	 50%	 50%	 50%	 75%
Overall	 	 	 	 	 	 	 	 	 
	<b>2/10</b>	<b>8/10</b>	<b>3/10</b>	<b>6/10</b>	<b>8/10</b>	<b>4/10</b>	<b>8/10</b>	<b>4/10</b>	<b>8/10</b>



## 4.6 Industry Development

The electrification of transport and clean energy transition offer significant economic opportunities for Australia, including economic growth, job creation, and numerous social and environmental benefits from a low emission transport sector. Realising these benefits will require coordinated efforts to build local capabilities across the entire EV value chain. This includes advancing skills development and workforce readiness, enabling a reliable supply of critical minerals, establishing local refining processes, and fostering the development of a circular economy.

### Skills and Training Development

INDUSTRY DEVELOPMENT

A well-trained workforce is essential to support the entire EV value chain, including manufacturing, maintenance, and infrastructure development. The gold standard for industry development includes establishing new skills and training courses across the EV sector, with a focus on national consistency and incentivising take-up of upskilling programs. This ensures a steady supply of qualified EV technicians, electricians, and other skilled professionals as the transition progresses. Collaboration between educational institutions, industry bodies, and government agencies is essential to establish consistent training approaches and ensure that programs meet the evolving needs of the EV industry.

Current workforce shortages demonstrate the necessity for more electricians to be trained in EV infrastructure installation and maintenance, with expanded training programs and incentives for apprenticeships needed to address this gap. Developing a skilled workforce of EV technicians is also essential to service and repair the growing number of EVs on Australian roads. Although efforts vary by jurisdiction, and some states are lagging behind; for instance, despite New South Wales' significant progress in a range of EV initiatives and programs, the state remains behind in the provision of dedicated EV training programs.

Current data gaps across the country also hinder a clear assessment of the current EV and clean energy workforce. Governments must also take a proactive role in promoting career pathways within the EV sector to build a steady pipeline of skilled workers to meet the demands of this rapidly growing industry.



## Critical Minerals

INDUSTRY DEVELOPMENT

Incentivising investments in mining and processing of critical minerals domestically can strengthen Australia's role as a global supplier to support the global energy and EV transition. The gold standard includes financial and regulatory support to enable investment in and expansion of local critical mineral supply for both domestic and international use, as well as the establishment of long-term agreements for sustainable mineral supply.



## Refining/Processing

INDUSTRY DEVELOPMENT

Governments should also consider financial and/or regulatory support to enable investment in local refining and processing of critical minerals for both domestic and international use to support Australian expansion across the battery value chain. Dedicated subsidies, tax incentives and regulatory concessions can make it more attractive for companies to invest in local refining facilities.



## Manufacturing

INDUSTRY DEVELOPMENT

The gold standard for industry development in manufacturing requires financial and regulatory support to promote investment in and expansion of local battery, component, and vehicle manufacturing (and remanufacturing vehicles from right hand drive to left hand drive).

This support should not only encourage new manufacturing facilities but also facilitate the transition of existing industries toward EV-related production. Expanding local manufacturing for both domestic and international markets will help secure Australia's position within the global EV supply chain and provide long-term economic benefits.

The gold standard requires financial and/or regulatory support to enable investment in and expansion of local battery, component, and vehicle manufacturing for both domestic and international use, including the transition of existing manufacturing industry and consideration of future opportunities.



## Battery Reuse/Recycling

INDUSTRY DEVELOPMENT

Support for local battery reuse and recycling infrastructure is critical for sustainable industry development as the transition progresses. The gold standard involves financial and/or regulatory support to enable investment in and expansion of local battery reuse and recycling, capturing economic opportunities and working collaboratively with other Australian governments and industry to ensure harmonisation with global best practices.

## Clean Energy Transition

INDUSTRY DEVELOPMENT

The broader clean energy transition is essential to ensure Australia can deliver the full benefits of increased EV adoption. The gold standard in this area involves significant progress in decarbonising the electricity grid through increased share of renewable energy sources necessary to support the future of electrified transport and development across the EV value chain.

### Industry Development Scorecard





## 4.7 Energy Infrastructure

As the EV transition accelerates, robust and accessible charging infrastructure is essential to support uptake across all vehicle segments. Ensuring sufficient charging infrastructure across public and private settings will be crucial to avoid the scenario where inadequate charging facilities hinder the adoption rate.

Concerted efforts are required from all levels of government to support deployment of additional charging stations and remove regulatory and substantive obstacles that currently impede infrastructure development. Support for innovative charging solutions will continue to be important, especially in areas with unique challenges and constraints to be overcome.

The EVC has outlined key priorities for a smooth transition from an infrastructure perspective, including addressing critical needs, intermediate priorities, and longer-term goals to ensure the smooth integration of EVs into the energy system.

**Critical needs**

**Fire Safety:** Clearly define what fire services can and cannot do with respect to EV charging installations, establish clear regulations and educational programs

<b>Intermediate Priorities</b>	
<b>Important for industry</b>	<b>Grid Orchestration:</b> Develop dynamic connection agreements that align with grid capabilities and demands.
<b>Important for drivers</b>	<b>Network Interoperability:</b> Foster interoperability and roaming between different charging networks to simplify usage.
	<b>Universal 'Plug &amp; Charge' Capability:</b> Enable seamless plug and charge functionality across various vehicles and Charging Point Operators (CPOs).

**Integrated Billing:** Integrated home energy billing with public charging usage.

### Important for industry

**Workforce Development:** Education for electricians, engineers, consultants.

**Improved Network Visibility:** Enhance the information available when applying for connection permits.

### Metrology requirements:

Withdraw new regulations that are unique to Australia"

**Flexibility in Demand Charges:** Provide options to opt out of demand charges for users consuming less than 160 MWh per annum.

### Important for drivers

**Convenient Locations:** Ensure public chargers are located near essential amenities for user convenience.

### Simplified Authentication and Payment:

- Allow payments by credit card right at the charger.
- Ensure accessibility to charging services without the need for mobile phone coverage.

**Accessibility and Inclusive Design:** Design charging sites so that everyone, including those with disabilities, can use them easily.

### Enhanced Maintenance Practices:

Improve regularity and standards of maintenance for charging stations.

### Continued Government Support:

Sustain and expand government funding programs, especially in remote areas.



## Public Fast Charging

INFRASTRUCTURE

The presence of ample public fast charging is important for addressing consumer concerns, and perceptions of a lack of charging infrastructure and/or being caught in long queues to access charging infrastructure during peak periods. As outlined in State of EVs 2023, availability of public fast charging infrastructure continues to be a concern for consumers.

As shown earlier in this report (see Section 3.3), it is encouraging to note that the pace of deployment of ultra-fast charging infrastructure is leading the EV uptake rate. That said, the deployment of this infrastructure needs to continue at an appropriate rate to support expansion of the EV fleet.

Issues regarding the connection of fast charging infrastructure persist, as discussed further in the DNSP scorecard section of this report. Examples of barriers to greater deployment of this infrastructure are the settings for demand and capacity charges in South Australia, and the treatment of second lines of supply in both Queensland and Victoria.



## Public Regular Charging

INFRASTRUCTURE

Similar to public fast charging, the national network of public regular (AC) charges continues to expand. This network is important for expanding awareness of EVs, and the availability of charging opportunities, given the deployment of this infrastructure is often in highly trafficked areas – such as shopping centres, supermarkets, kerbside parking, etc.

Challenges remain for this segment of the charging network, including obtaining access agreements from DNSPs to connect infrastructure, receiving consent and/or licences from local governments to use public land for chargers, and also from property owners to host charging infrastructure.

**Kerbside charging** - Kerbside charging is a mode of charging that has continued to expand through 2024. This form of charging is now moving beyond the trial stage, which several businesses set up with kerbside charging as their primary focus.

The first round of funding in the NSW kerbside charging program awarded over \$4 million, to support the deployment of 671 charging ports. At time of writing, the second round of funding is open, and is expected to support hundreds more.

We encourage other State and Territory governments to closely examine the success of this program and consider how it could be replicated locally.

**Destination charging** – The number of chargers rolled out at shopping facilities, accommodation providers and entertainment precincts has also continued to expand during 2024. This infrastructure is important to support opportunity charging, as well as EV road tourism.

The NSW Government is a leading example of efficient and effective policy with respect to destination charging infrastructure.

## Workplace Charging

INFRASTRUCTURE

Workplace charging can increase the availability and convenience of charging to employees with EVs. Evidence shows that employees who work at companies that have a workplace charging program are six times more likely to drive an EV than the average worker and can improve employee retention.<sup>3</sup> EV chargers may also help attract higher quality employees and supports sustainability targets of the business. While many employees work business hours, workplace charging represents an opportunity to utilise cheap and abundant renewable energy.

One of the primary challenges to deployment workplace charging infrastructure is obtaining permission from the property owner to install infrastructure in car parking bays not owned by the business. Further work is required to both address misinformation about EVs which is reducing the willingness of some property owners to deploy infrastructure, as well as support mutually beneficial outcomes for all parties involved.

The Western Australian Government is the only jurisdiction to establish incentives specifically for workplace charging infrastructure. You can find out more at the [WA Charge Up website](#).

## Dedicated Charging for Heavy Vehicles

INFRASTRUCTURE

Dedicated charging for heavy vehicles requires significant electrical infrastructure which may include: high powered charging equipment (~1.5MW), new switch boards, large network connections and/or new substations. Heavy vehicles also require space to manoeuvre and pull up alongside EV chargers, particularly when they are towing trailers.

Governments, CPOs, Landholders and DNSP/TNSPs need to work together to identify locations that make sense for this application but also intersect with sufficient power supply that will allow solutions to scale.

NSW, Victoria and Queensland are leading on electrification of Bus fleet and Bus depots with the NSW [zero emissions buses](#) program and the Vic [Zero Emissions Bus](#) Trial opening it's first electric bus [depot](#) in February. The Queensland-built electric buses program promises more [depots](#) will be built after its first all-electric depot in North Lakes was completed in February.

## EV Readiness in Building Development

INFRASTRUCTURE

Following updates to the National Construction Code (NCC), new apartment buildings around the country are increasingly going to be built 'EV ready'. This means that future installation of EV chargers in those buildings will generally be much easier than in apartment buildings where no EV readiness work has been undertaken. These measures can be

<sup>3</sup> [WPCC\\_2016 Annual Progress Report.pdf \(energy.gov\)](#)

relatively affordable in the context of a new construction. The NCC updates are primarily aimed at requiring extra electrical distribution boards in car parks, so that when the time comes and an apartment owner decides they want to install an EV charger at their own cost in their own parking space, it is easy to do so. These measures do not require significant increases in electrical capacity because the new requirements allow for EV charging to happen off-peak in a scheduled manner.

Some tenants and apartment owners have been experiencing difficulties gaining consent and funding to install chargers in the carparks of multi-residential complexes. Addressing EV readiness in multi-storey buildings remains an important priority for governments to support and help to facilitate.

Requirements for EV readiness are strengthened in the National Construction Code (NCC) 2022 for classes residential to commercial, and some buildings built to this code will be approaching completion at the end of 2024. The public comment draft of NCC 2025 goes a step further, introducing minimum requirements for EV supply equipment to be installed in a proportion of car spaces upon building completion. The EVC has asked for clarification in the NCC 2025 that the 'special hazard' clause is not to be triggered by the presence of EVs and EVSE.

The EVC in conjunction with multiple Local Councils has formulated a [Development Control Plan](#) or a series of suggested provisions that Local Councils can push to implement into their building schemes for multi residential complexes that require EV chargers to be installed in a proportion of shared car parking spaces.

In the future, we expect that apartment buildings that do not adequately plan for the transition to EVs will experience some negative commercial outcomes. Renters will increasingly be looking for convenient EV charging as a feature of the building in which they're renting. Prospective buyers will increasingly consider EV charging facilities and EV readiness when they're making a buying decision. This again the emphasises of supporting EV readiness.



## Retrofit Programs and Enabling Charging for Rentals/Strata

INFRASTRUCTURE

One of the more challenging locations to install charging infrastructure can be in apartment complexes. This is not only due to the ownership arrangements of different parts of the building, but also access to electrical infrastructure in buildings that may have been constructed several decades ago. In most instances, some level of electrical infrastructure retrofitting is required in order to facilitate the install of EV charging infrastructure in multi-level buildings e.g. apartment complexes, which can be an expensive exercise depending on the scope of work.

With buildings in Australia being designed for a service life up to 60 years, it is imperative that retrofitting EV charging infrastructure to existing buildings is supported and straightforward.

The NSW Government has also been a leader in this field, specifically through their [EV ready buildings grant](#) program. While this program is now closed, the insights gathered can be used to inform future policy in New South Wales, and elsewhere in Australia. It is important governments support equitable and efficient retrofit solutions so that all Australians can have the opportunity to make the switch to an EV.

## Sharing of Charging Infrastructure Data

AWARENESS

It would be useful in electricity network planning for DNSPs to know where EV charging infrastructure has been installed on their network. Further work is required to understand the most efficient pathway for collecting this data so there can be greater visibility of not only where EVs are based, but where the charging infrastructure is also located. There are challenges around the appropriate pathway to achieving this outcome, but it is expected to become increasingly important, particularly as bi-directional chargers are progressively deployed over the coming years.

### Energy Infrastructure Scorecard





## 05 Distribution Network Service Providers (DNSPs)

Distribution Network Service Providers (DNSPs) have a significant and critical role to play in enabling the EV transition.

Distribution Network Service Providers manage the maintenance, operation and construction of the electricity network from where it leaves the transmission network ( $\sim >132\text{kV}$ ) to the connection points of homes and businesses (LV), along with some metering services and tariff setting for use of the electricity network. This gives them control over what can be connected to their networks and some influence over how much it will cost to use the network, though DNSPs as regulated monopolies are subject to oversight from the Australian Energy Regulator (AER).

While the EVC acknowledges this is a challenging space for all parties involved, this year's report is introducing a new score grade section for DNSPs to celebrate both where progress is being made, and highlight areas where barriers remain and there is room for improvement. The EVC represents a broader range of members, and we are incredibly appreciative of the input provided by both member and non-member DNSPs in developing this new scorecard.

Through continuing collaboration, the EVC aims to work with all stakeholders, including DNSPs, to support accelerating the deployment of charging infrastructure, and sharing both costs and benefits of this transition appropriately.

### Dedicated Team for Public High Power EV Charging Connections

STRATEGY

High power EV charging stations are expensive and time consuming to install. At the early stages of the transport transition there is a high degree of risk with installing this infrastructure as not every capital investment immediately turns into a positive return.

There will be efficiencies in forming a team within DNSP's that is dedicated to processing applications for high power EV charger connections. Individuals tasked with this role will become experts in the field and establish strong relationships with proponents who will

understand at the outset: what information they need to consider, what information they need to provide, what is the process, what they can expect, in what time frame and how much it will cost.

## Sharing Electrical Grid Capacity Data to Support Public Charger Deployment

AWARENESS

Improving visibility of network capacity information offers a multitude of benefits for the planning and deployment of charging infrastructure. It can save substantial time for organisations planning deployments, make it easier for infrastructure planners and electricity utilities to do business, and allow the industry to collectively shape the future of an electrified transport system.

Some charging infrastructure proponents have reported waiting up to 18 months for connections to be approved. Proponents wishing to connect assets to the electricity network will enjoy faster connection times if they are informed about the capacity of the network in the area they wish to deploy. It will help them understand what level of investment may be needed to have the asset connected in that location and may guide where they should be looking to deploy. This leads to cheaper public charging for consumers and healthier business cases for proponents.

Western Power is an example of a DNSP that publicises network visibility maps to the zone substation level. SAPN has it to the feeder level. Essential Energy have visibility maps to the pole/pad mount transformer level which is the gold standard.

Essential Energy has released a great tool that provides insights into the estimated capacity on their low voltage network. Given many variables determine if a network has capacity for electric vehicle load, the tool doesn't replace a formal connection application process. However, it does allow organisations to rapidly assess a geographic area against their equipment deployment plans. For Essential Energy, this potentially reduces the number of individual applications needed for a business planning multiple EV infrastructure sites, with a higher probability that the selected sites will be fit-for-purpose. This is currently the gold standard in Australia demonstrating the potential of sharing existing data in an accessible way.

The EVC encourages all DNSPs to establish systems similar to Essential Energy's tool, to allow organisations to leverage network capacity information and expedite the deployment of EV charging across the country.

## Residential Network Tariffs

INFRASTRUCTURE

The need for considered residential network tariffs is multi-faceted:

- There remain concerns about the impact EV charging could have on the electricity network during peak usage periods.
- A consumer's ability to charge their EV at a low cost has a material impact on EV adoption given the generally higher upfront costs.

- High feed-in tariffs for exporting energy during network peak usage periods encourages vehicle-to-grid (V2G).
- Coupling export charges for energy fed into the network during the middle of the day, in tariffs with high feed-in-tariffs for export during network peak usage periods, but not in all other tariffs, disincentivises V2G.

Network Time-of-use (TOU) tariffs that feature low daytime and midnight energy prices, relatively high peak usage period prices and shoulder prices in between will be needed to encourage charging at the right time to support the grid. In tandem with this, we will need to see low feed-in-tariffs in the middle of the day, high feed-in-tariffs in peak usage periods and export charges across either all tariffs or no tariffs at all.

It should be noted that Regional Queensland and Western Australia do not have access to TOU tariffs at the same rates as the rest of the country.

## Home EV Charging in the SIRs

INFRASTRUCTURE

The Service and Installation Rules (SIRs) govern the way in which some electrical installations may be connected to the electricity network. They differ in every state, though are harmonised across every DNSP within a state.

In Queensland, the SIRs require that installations of globally standard 7kW EV chargers in single phase homes must provide for Energy Queensland's DNSPs to be able to exert control over the EV charger. There is no consumer consent process involved. At time of publication, it appears based on public social media posts<sup>4</sup> that Energex staff are actively issuing defect notices to consumers who have EV chargers in their homes that are not subject to control by Energex.

This limitation on consumer access to the flow of electricity to their assets without consent, runs afoul of the AER's consumer protection requirements.<sup>5</sup> No other states are proposing 'control without consent' in this manner.

Energex is an electricity distributor in Queensland. Along with Ergon Networks, Ergon Retail and Yurika, it's part of Energy Queensland, a government-owned electricity company. This makes the pathway for the newly elected Queensland state government to put control back in the hands of consumers quite straightforward.

## Commercial Network Tariffs for Public Charging

INFRASTRUCTURE

Most states and territories have network tariffs where consumers can opt-out of demand charges if they consume less than 160MWh per year. During the early stages of the transport transition, while utilisation is low, public EV charging sites benefit from being able to opt-out of demand charges, and pass on the savings at the EV fast charger.

<sup>4</sup> [Facebook post](#), 5 November 2024

<sup>5</sup> [Report template \(aer.gov.au\)](#) p.17

Queensland and Northern Territory – DNSPs in Queensland and NT have tariffs allowing opt-out up to 100MWh p.a. This leads to large cost increases to EV owners using low utilisation public fast chargers in regional areas when they cross a relatively low utilisation threshold, putting upward pressure on EV charging costs.

South Australia – All customers with demand over 120kVA,<sup>6</sup> incur demand charges. This unfairly financially burdens customers who infrequently draw high current and have low utilisation, such as high power fast charging.

Victoria – while the DNSPs have not historically supported opt outs from capacity charges, the Victorian government issued an order in council that mandates that consumers below 160MWh/annum be able to opt out of demand charges.<sup>7</sup>

## Second Lines of Supply

INFRASTRUCTURE

At established commercial premises like shopping centres and retail locations, the deployment of high-power charging equipment is often impeded by the need to upgrade the existing site connection and main switchboard. This can be costly and disruptive, slowing down the rate of charging infrastructure installations.

A more efficient and cost-effective approach being taken around the world is to implement a second connection from the distribution network to the premises, specifically for the high-power charging equipment. Support for this approach varies across jurisdictions in Australia, with some DNSPs and regulators more supportive than others.

The EVC encourages government, DNSPs, regulators, and industry to come together and develop a nationally consistent, principles-based approach to approving second lines of connection to commercial premises for the purpose of supporting high power charging. This would fall within the priorities announced under the National EV Strategy earlier this year.

When the proposition of installing EV charging infrastructure to a commercial premise is contemplated, the inconvenience of accommodating the switchboard upgrade works and potential for several periods without electricity can be enough to delay or cancel the installation. The option of a second line of supply means the equipment, accompanying civil works and a separate switchboard can be installed out of the way in the carpark, with reduced electricity outages.

Victorian regulations allow for second lines of supply, but Victorian DNSPs are unsupportive of second lines of supply in typical cases where second lines of supply would lead to efficient deployments. Queensland DNSPs do not allow second lines of supply within a useful distance of the first connection.<sup>8</sup>

*Disclaimer: Please note, the data for the DNSP scorecard was collected in June 2024 and some progress could have been made since that is not reflected in the summary shown on the following page.*

6 Attachment 18 - Tariff Structure Statement Part B - Explanatory Statement ([aer.gov.au](http://aer.gov.au))

7 <http://www.gazette.vic.gov.au/gazette/Gazettes2021/GG2021S295.pdf>

8 Queensland Electricity Connection Manual Version 4 - 2912908 ([ergon.com.au](http://ergon.com.au))

## DNSP Scorecard

		Dedicated Team for Public High Power EV Charging Connections	Sharing Electrical Grid Capacity Data	Residential Network Tariffs	Home EV Charging in the SIRs	Consumer information relevant to EVs	Commercial Network Tariffs for Public Charging	Second Lines of Supply	Timeliness of new DC charging connections (No. of responses)
ACT	<b>EvoEnergy</b>	0%	50%	75%	0%	100%	0%	75%	50% (2)
NSW	<b>Ausgrid</b>	100%	50%	75%	100%	100%	100%	100%	75% (5)
NSW	<b>Endeavour Energy</b>	100%	50%	75%	100%	100%	100%	100%	50% (5)
NSW	<b>Essential Energy</b>	100%	100%	75%	100%	100%	100%	100%	75% (4)
NT	<b>Power and Water Corporation<sup>8</sup></b>	0%	0%	0%	0%	0%	100%	75%	75% (2)
QLD	<b>Energex</b>	100%	100%	75% <sup>9</sup>	0%	100%	50%	25%	75% (4)
QLD	<b>Ergon Energy Networks</b>	100%	100%	75% <sup>9</sup>	0%	100%	50%	25%	50% (4)
SA	<b>SA Power Networks</b>	100%	75%	100%	100%	100%	0%	100%	50% (3)
TAS	<b>TasNetworks</b>	0%	25%	75%	100%	100%	100%	100%	50% (5)
VIC	<b>CitiPower</b>	0%	100%	75%	100%	100%	100%	25%	25% (2)
VIC	<b>Powercor</b>	0%	100%	75%	100%	100%	100%	25%	75% (4)
VIC	<b>Jemena</b>	0%	50%	50%	100%	100%	100%	0%	50% (2)
VIC	<b>AusNet</b>	0%	50%	75%	100%	100%	100%	0%	50% (4)
VIC	<b>United Energy</b>	0%	100%	75%	100%	100%	100%	25%	50% (4)
WA	<b>Horizon Power</b>	0%	0%	N/A <sup>12</sup>	100%	100%	100%	75%	No data
WA	<b>Western Power</b>	0%	25%	75%	100%	100%	100%	75%	25% (4)

8 The NT is not at a stage of EV uptake warranting a lot of focus by the DNSP.

9 Although Qld DNSPs do not currently have a high feed-in rate in the afternoon peak or an absence of selective penalties for access to low rates middle of day/night and high feed-in rate for afternoon peak, they propose to from 2027.

10 The AER draft decision directs SAPN, Ergon Energy and Energex to allow opt-out of capacity charges for connections >120 kVA when using <160 MWh. The EVC is monitoring the final decision.

11 Required to by Ministerial Order

12 Residential power prices are set by the WA government



## 06 Local Government

Local governments hold a significant yet sometimes underappreciated role in accelerating the EV transition. This level of government is uniquely positioned to implement practical changes through direct policy action, infrastructure deployment, and active community engagement. If we are to achieve net zero emissions by 2050, the role of local governments in developing strategies and supporting their communities in the transition is absolutely critical.

Outlined below are some high-level steps that local governments can take to show leadership in this area.



### **Developing a Sustainability Strategy and Action Plan:**

- Set clear targets for the transition of fleet vehicles to EVs.
- Publicly evaluate and regularly review progress towards these targets.



### **Incentivising Local Adoption of EVs:**

- Implement policies such as low emission zones and preferential parking for EVs.
- Support local fleets and shared vehicle initiatives to enhance accessibility.



### **Future-proofing the Built Environment:**

- Integrate EV charging requirements into Development Control Plans and other planning instruments to ensure new developments are EV-ready.



### **Enabling the Rollout of Charging Infrastructure:**

- Provide land on long-term leases for private operators to install charging stations.
- Allow charging operators to include advertising to offset installation and operational costs
- Collaborate with state and federal governments to secure co-funding for infrastructure projects.

**Supporting the Broader Fleet Transition:**

- Develop and implement a fleet transition plan aligning with sustainability targets.
- Adopt procurement policies that prioritize zero-emission vehicles for the council's fleet.

**Increasing Awareness and Engagement:**

- Offer driver education and training for council workers.
- Organise drive red days and education sessions to boost community awareness and involvement
- Provide regular updates on the council's initiatives and progress.

Many local governments have demonstrated their awareness of climate change and its effect on their constituents at the local level. Acting in alignment with these policies and statements of intent, the EVC encourages local governments to take a holistic analysis of EVs and their role in reducing carbon emissions and improving air quality.

One of the most effective measures local governments can take is improving charging infrastructure, especially in inner-city suburbs with a higher proportion of people living without access to off-street parking. For example, streamlined development applications for charging point installations and zero-fee licences for charging point operators will improve the efficiency of charging roll-out.

The Electric Vehicle Council is actively exploring more opportunities to support local government in driving EV uptake during 2025.

# 07 Appendices

## Appendix A - Glossary

Term	Explanation
<b>AC Charging</b>	When an EV is connected to an AC charger, the onboard charger of the vehicle converts the AC electricity from the power grid into DC electricity, which is then used to charge the vehicle battery. AC charging is typically slower compared to DC charging and is often used for overnight home charging or at workplaces where vehicles are parked for extended periods.
<b>BEVs (Battery Electric Vehicles)</b>	Vehicles that are powered exclusively by electricity stored in onboard batteries and use electric motors for propulsion.
<b>DC Charging</b>	<p>DC charging involves supplying direct current directly to a vehicle's battery without the need for conversion by the onboard charger.</p> <p>This allows for much faster charging times ideal for use at public charging stations along highways or in settings where rapid charging is necessary. With current technologies offering power levels from around 50 kW to over 350 kW, DC chargers are significantly more powerful than AC chargers.</p>
<b>Destination Charging</b>	EV charging stations located at destinations like hotels, shopping centres, or tourist hotspots, usually providing slower charging over a longer period.
<b>DNSP (Distribution Network Service Provider)</b>	DNSPs are the entities responsible for operating and maintaining the electricity distribution network, which includes the poles, wires, meters, and infrastructure that deliver electricity from the high voltage transmission network to end users, including residential homes, businesses, and EV charging stations.
<b>EVs (Electric Vehicles)</b>	<p>Electric Vehicles (EVs) specifically refer to vehicles that use electric motors for propulsion and can be recharged from an external power source.</p> <p>This includes Battery Electric Vehicles (BEVs), which operate solely on electric power stored in batteries, and Plug-in Hybrid Electric Vehicles (PHEVs), which can run on electric power and switch to an internal combustion engine when needed. Unlike conventional hybrid vehicles, EVs can be externally charged, allowing for extended electric-only driving capabilities.</p>
<b>EVSE (Electric Vehicle Supply Equipment)</b>	Equipment required to supply electric energy for recharging electric vehicles, commonly referred to as EV chargers.
<b>Fast and Ultra-Fast Charging</b>	Refers to higher power charging technologies that can recharge EV batteries much faster than standard charging options. Fast chargers are typically rated between 24 kW and 99 kW, while ultra-fast chargers exceed 100 kW.
<b>Heavy Vehicles</b>	Includes larger transport vehicles like trucks, buses and some vans that are generally greater than 4.5 tonnes gross vehicle mass (with some exceptions, such light box 3.5-4.5 tonne trucks).

<b>HV (High Voltage)</b>	In most contexts, high voltage is defined as any voltage exceeding 1,000 volts AC or 1,500 volts DC.
<b>Light Vehicles</b>	Typically refers to passenger vehicles including cars, small vans, and utes that are generally below 4.5 tonnes gross vehicle mass.
<b>LV (Low Voltage)</b>	Low voltage is defined as any voltage from 50 to 1,000 volts alternating current (AC) or from 120 to 1,500 volts direct current (DC).
<b>Micromobility</b>	Refers to smaller, often personal transport options such as electric scooters and bikes.
<b>PHEVs (Plug-in Hybrid Electric Vehicles)</b>	Vehicles that combine an internal combustion engine with an electric propulsion system. These vehicles can be charged externally to run on electricity before switching to fuel.
<b>V2G (Vehicle-to-Grid)</b>	Technology that enables energy to be pushed back to the power grid from the battery of an electric vehicle.
<b>New Vehicle Efficiency Standard</b>	<p>The New Vehicle Efficiency Standard sets an average tailpipe carbon emissions target for all new vehicles sold in a single year by each car maker. These companies are able to sell vehicles both above and below the target; what is important is the average carbon emissions across all vehicles sold.</p> <p>The target is reduced each year, encouraging car makers to continue importing more efficient, low and zero emission models into Australia.</p> <p>Car makers that beat the target earn credits. These credits can be saved for future years, or sold to other car makers. Car makers that miss the target can choose to pay a penalty, purchase credits from other carmakers or try to make up the deficit in future years – since there is a rolling window to save credits and debits.</p> <p>In effect, the standard sets up a trading scheme between car makers, and encourages competition for the most efficient vehicles. This will save consumers money, reduce Australia's reliance on foreign oil, and increase the use of Australian-made energy.</p> <p>Australia is one of the few developed economies that has not had this type of standard (together with Russia), and from 1 January 2025, the country will finally catch up to markets with the introduction of the New Vehicle Efficiency Standard.</p>
<b>Facilities Access Agreement</b>	A contract between a DNSP and a charge point operator (CPO) for the CPO to use the DNSPs assets, such as a powerpole.
<b>Service Installation Rules</b>	A document defining how electrical connections may be made to the distribution network in a certain state/territory.

## Appendix B - Targets

Below is an overview of key targets related to the EV transition across the country:

Jurisdiction	Federal	ACT	NSW	NT	QLD	SA	TAS	VIC	WA
Net Zero Commitment	2050	2045	2050	2050	2050	2050	Achieved	2045	2050
Renewable Energy Target	82% by 2030	100% by 2020	N/A	50% by 2030	50% by 2030	100% by 2027	200% by 2040	65% by 2030	N/A
EV Sales Target	N/A	80-90% of new car sales by 2030 (100% from 2035)	50% of new car sales by 2031	N/A	50% passenger vehicle sales by 2030; 100% by 2036	100% by 2040	N/A	50% of new light vehicle sales by 2030	N/A
Government Fleet Target	'Low Emission Vehicles' to be 75% of new passenger vehicles by 2025	100% electric passenger fleet leases (ongoing)	100% passenger EVs by 2030 (50% by 2026)	100% light EV purchases (ongoing) (suitability exclusions apply)	100% passenger vehicles by 2026 (eligibility exclusions apply)	N/A	100% by 2030	100% by 2035	50% light/med vehicles by 2025
Electric/Zero Emissions Bus (ZEB) Target	N/A	100% ZEB fleet by 2040	100% ZEB fleet by: 2035 (Greater Sydney); 2040 (Outer Metro); 2047 (Regional, NSW)	N/A	All new buses added to SEQ fleet ZEBs by 2025; 100% ZEB state-wide by 2030	100% ZEB fleet by 2050	N/A	All new orders to be ZEB by July 2025;	N/A

**Net Zero Commitment:** The target year by which the jurisdiction aims to achieve net-zero greenhouse gas emissions.

**Renewable Energy Target:** The percentage of energy the jurisdiction aims to generate from renewable sources by a specified year.

**EV Sales Target:** The expected percentage of electric vehicles in new car sales by a specified year.

**Electric/Zero Emissions Bus Target:** Plans or targets related to transitioning public bus fleets to electric or zero-emission vehicles.

## Appendix C – Electric Vehicle Sales

<b>Year</b>	<b>BEV Sales</b>	<b>PHEV Sales</b>	<b>Total EV Sales</b>	<b>EV Market Share</b>
2011	49	0	49	0.00%
2012	173	80	253	0.02%
2013	191	102	293	0.02%
2014	371	951	1,322	0.12%
2015	759	1,012	1,771	0.15%
2016	668	701	1,369	0.12%
2017	1,208	1,076	2,284	0.19%
2018	1,053	1,163	2,216	0.21%
2019	5,292	1,426	6,718	0.65%
2020	5,215	1,685	6,900	0.78%
2021	17,293	3,372	20,665	1.95%
2022	33,416	5,937	39,353	3.81%
2023	87,217	11,219	98,436	8.45%
2024 (YTD Sept)	69,895	15,424	85,319	9.53%

Sources: EVC Vehicles Sales Report, AAA EV Index, VFACTS

## Appendix D – Electric Vehicle Models

### Electric cars

Brand	Model	Variant	Starting Price	Type	Battery (kWh)	Electric Range (KM)	0-100KM/H	Body	FBT Exemption Eligible
<b>Abarth</b>	<b>500e</b>	Turismo	\$58,900	BEV	42	252	7.0	Hatch	*
<b>Alfa Romeo</b>	<b>Tonale</b>	Veloce PHEV	\$78,500	PHEV	15.5	60	8.8	SUV	*
	<b>e-tron GT</b>	e-tron GT	\$182,400	BEV	93	488	4.1	Sedan	
		RS e-tron GT	\$246,875	BEV	93	472	3.3	Sedan	
	<b>e-tron Q4</b>	45	\$84,900	BEV	82	524	6.7	SUV	*
		55	\$105,900	BEV	82	488	5.4	SUV	
	<b>e-tron Q4 Sportback</b>	45 Sportback	\$86,500	BEV	82	540	6.7	SUV	*
		55 Sportback	\$107,500	BEV	82	503	5.4	SUV	
<b>Audi</b>	<b>e-tron Q8</b>	50	\$140,600	BEV	95	411	7.0	SUV	
	<b>e-tron Q8 Sportback</b>	Sportback 55	\$166,600	BEV	114	454	6.5	SUV	
	<b>e-tron SQ8</b>	Wagon	\$173,600	BEV	114	417	5.1	SUV	
	<b>e-tron SQ8 Sportback</b>	Sportback	\$180,600	BEV	114	430	5.1	SUV	
	<b>Q5</b>	55e	\$105,984	PHEV	17.9	55	5.3	SUV	
	<b>Q8</b>	60e	\$154,284	PHEV	22	59	5.4	SUV	
	<b>Bentayga</b>	Hybrid	\$396,700	PHEV	18	40	5.3	SUV	
<b>Bentley</b>	<b>Continental GT Coupe</b>	Speed	\$581,900	PHEV	25.9	80	3.2	Coupe	
	<b>Continental GT Convertible</b>	Speed	\$639,800	PHEV	25.9	80	3.2	Convertible	
	<b>Flying Spur</b>	Hybrid	\$479,100	PHEV	18	40	4.3	Sedan	
		eDrive35	\$85,900	BEV	70	430	6.0	Sedan	*
	<b>i4</b>	eDrive40	\$102,900	BEV	84	590	5.7	Sedan	
		M50	\$133,900	BEV	95	510	3.9	Sedan	
	<b>i5</b>	eDrive40	\$155,900	BEV	84	582	6.0	Sedan	
		M60 xDrive	\$215,900	BEV	84	516	3.8	Sedan	
	<b>i7</b>	xDrive60	\$297,900	BEV	106	625	4.7	Sedan	
		M70 xDrive	\$344,900	BEV	106	560	3.7	Sedan	
		xDrive40	\$135,900	BEV	77	420	6.1	SUV	
	<b>ix</b>	xDrive50	\$185,000	BEV	112	620	4.6	SUV	
<b>BMW</b>		M60	\$233,400	BEV	112	566	3.8	SUV	
	<b>ix1</b>	eDrive20	\$78,900	BEV	67	430	10.5	SUV	*
		xDrive30	\$84,900	BEV	67	400	5.6	SUV	*
	<b>ix2</b>	eDrive20	\$82,900	BEV	67	477	8.6	SUV	*
		xDrive30	\$85,700	BEV	67	449	5.6	SUV	*
	<b>ix3</b>	Standard	\$114,900	BEV	80	460	6.8	SUV	
	<b>M5 Sedan</b>	Sedan	\$221,012	PHEV	18.6	67	3.5	Sedan	
	<b>M5 Touring</b>	Touring	\$224,090	PHEV	18.6	67	3.5	Wagon	
	<b>X5</b>	xDrive50e	\$149,900	PHEV	29.5	101	4.6	SUV	
	<b>XM</b>	xDrive	\$302,200	PHEV	29.5	98	4.3	SUV	

<b>Brand</b>	<b>Model</b>	<b>Variant</b>	<b>Starting Price</b>	<b>Type</b>	<b>Battery (kWh)</b>	<b>Electric Range (KM)</b>	<b>0-100KM/H</b>	<b>Body</b>	<b>FBT Exemption Eligible</b>
<b>BYD</b>	<b>Atto 3</b>	Standard Range	\$44,499	BEV	50	345	7.3	SUV	*
		Extended Range	\$47,499	BEV	60	420	7.3	SUV	*
	<b>Dolphin</b>	Dynamic	\$36,890	BEV	45	340	12.3	Hatch	*
		Premium	\$42,890	BEV	60	427	7.0	Hatch	*
	<b>Seal</b>	RWD Dynamic	\$49,888	BEV	61	460	7.5	Sedan	*
		RWD Premium	\$58,798	BEV	82	570	5.9	Sedan	*
	<b>Sealion 6</b>	AWD Performance	\$68,748	BEV	82	520	3.8	Sedan	*
		Dynamic	\$51,784	PHEV	18.3	92	8.5	SUV	*
		Premium	\$55,984	PHEV	18.3	81	5.9	SUV	*
<b>Cadillac</b>	<b>Lyriq</b>	Luxury	\$122,887	BEV	102	530	5.3	SUV	
		Sport	\$124,971	BEV	102	530	5.3	SUV	
<b>Cherry</b>	<b>Moda E5</b>	BX	\$42,990	BEV	61	430	7.6	SUV	*
		EX	\$45,990	BEV	61	430	7.6	SUV	*
<b>Cupra</b>	<b>Born</b>	Standard	\$59,990	BEV	82	511	7.0	Hatch	*
	<b>Formentor</b>	Vze	\$64,990	PHEV	12.8	58	7.0	SUV	*
	<b>Leon</b>	Vze	\$61,690	PHEV	12.8	55	6.7	Hatch	*
<b>Deepal</b>	<b>S07</b>	RWD	\$53,900	BEV	80	475	7.9	SUV	*
<b>Ferrari</b>	<b>296 Convertible</b>	GTS	\$668,146	PHEV	7.5	25	2.9	Convertible	
	<b>296 Coupe</b>	GTB	\$604,000	PHEV	7.5	25	2.4	Coupe	
	<b>SF90 Coupe</b>	Stradale	\$1,568,200	PHEV	7.9	25	2.5	Coupe	
	<b>SF90 Convertible</b>	Spider	\$957,700	PHEV	7.9	24	2.5	Convertible	
<b>Fiat</b>	<b>500e</b>	Standard	\$52,500	BEV	42	312	9.0	Hatch	*
<b>Ford</b>	<b>Mustang Mach-E</b>	Select	\$79,990	BEV	71	470	6.9	SUV	*
		Premium	\$91,655	BEV	91	600	7.0	SUV	
		GT	\$107,665	BEV	91	490	4.4	SUV	
<b>Genesis</b>	<b>G80 Electrified</b>	Premium	\$145,675	BEV	87	520	4.9	Sedan	
	<b>GV60</b>	Standard	\$106,375	BEV	77	470	5.5	SUV	
		Performance	\$113,375	BEV	77	466	4.0	SUV	
	<b>GV70 Electrified</b>	Sport	\$126,475	BEV	77	445	4.2	Sedan	
<b>GWM</b>	<b>Ora</b>	Standard Range	\$35,990	BEV	48	301	8.5	Hatch	*
		Extended Range	\$40,990	BEV	63	420	8.5	Hatch	*
		Extended Range GT	\$46,990	BEV	63	400	8.5	Hatch	*
<b>Hyundai</b>	<b>Ioniq 5</b>	Dynamiq	\$72,000	BEV	58	507	7.3	SUV	*
		Techniq	\$83,500	BEV	77	454	5.1	SUV	*
		Epiq	\$84,981	BEV	77	454	5.1	SUV	*
		N	\$111,000	BEV	84	448	3.4	SUV	
	<b>Ioniq 6</b>	Dynamiq	\$74,000	BEV	77	614	7.4	Sedan	*
		Techniq	\$83,500	BEV	77	519	5.1	Sedan	*
	<b>Kona Electric</b>	Epiq	\$87,288	BEV	77	519	5.1	Sedan	*
		Standard Range	\$54,500	BEV	40	305	9.9	SUV	*
		Extended Range	\$60,740	BEV	64	490	7.9	SUV	*
<b>Jaguar</b>	<b>I-Pace</b>	Premium Extended Range	\$65,290	BEV	64	490	7.6	SUV	*
		R-Dynamic SE	\$147,475	BEV	90	446	4.8	SUV	
		R-Dynamic HSE	\$164,275	BEV	90	446	4.8	SUV	

Brand	Model	Variant	Starting Price	Type	Battery (kWh)	Electric Range (KM)	0-100KM/H	Body	FBT Exemption Eligible
Jeep	Avenger	FWD	\$49,990	BEV	54	396	9.0	SUV	*
	Compass	4xe	\$61,990	PHEV	11.4	47	7.3	SUV	*
	Grand Cherokee	4xe	\$110,850	PHEV	17	52	5.3	SUV	
Kia	EV5	Air Standard Range FWD	\$56,770	BEV	64	400	8.5	SUV	*
		Air Long Range FWD	\$61,170	BEV	88	555	8.9	SUV	*
		Earth AWD	\$64,770	BEV	88	500	6.1	SUV	*
		GT-Line AWD	\$71,770	BEV	88	470	6.3	SUV	*
	EV6	Air AWD	\$72,590	BEV	77	528	7.3	SUV	*
		GT-Line AWD	\$79,590	BEV	77	504	7.3	SUV	*
		GT-Line AWD	\$88,292	BEV	77	484	5.2	SUV	*
		GT AWD	\$99,950	BEV	77	424	3.5	SUV	
Lamborghini	EV9	Air RWD	\$97,000	BEV	100	443	8.2	SUV	
		Earth AWD	\$106,500	BEV	100	512	9.4	SUV	
	Niro Electric	GT Line AWD	\$121,000	BEV	100	512	6.0	SUV	
		S	\$66,590	BEV	65	460	7.8	SUV	*
	Sorento	GT-Line PHEV	\$84,660	PHEV	14	55	8.4	SUV	*
		Revuelto	Standard	PHEV	3.8	10	2.5	Supercar	
Land Rover	Defender	P400e	\$126,184	PHEV	19.2	52	5.6	SUV	
	Discovery Sport	P300e	\$101,382	PHEV	14.9	66	6.6	SUV	
	Range Rover	P460e	\$262,852	PHEV	38.2	126	5.7	SUV	
	Range Rover Evoque	P300e	\$115,634	PHEV	15	62	6.4	SUV	
	Range Rover Sport	P460e	\$188,100	PHEV	38.2	112	3.6	SUV	
	Range Rover Velar	P400e	\$131,536	PHEV	19.2	69	5.2	SUV	
LDV	MIFA 9	Mode	\$106,000	BEV	90	440	8.9	People Mover	
		Executive	\$117,000	BEV	90	435	8.9	People Mover	
		Luxe	\$131,000	BEV	90	430	8.9	People Mover	
Leapmotor	C10	RWD	\$47,500	BEV	69.9	420	7.3	SUV	*
Lexus	NX	450h+	\$92,882	PHEV	18.1	87	6.3		
	RZ	450e Luxury	\$121,675	BEV	71	470	5.6	SUV	
		450e Sports Luxury	\$133,675	BEV	71	470	5.6	SUV	
Lotus	UX 300e	Standard	\$79,990	BEV	72	440	7.5	SUV	*
	Electre	Standard	\$239,000	BEV	112	570	4.5	SUV	
		S	\$269,000	BEV	112	510	4.5	SUV	
		R	\$315,000	BEV	112	425	2.9	SUV	
Mazda	CX-60	P50e	\$73,600	PHEV	76	17.8	5.9	SUV	*
	CX-80	P50e	\$75,000	PHEV	65	17.8	6.8	SUV	*
McLaren	Artura	Artura	\$449,500	PHEV	7.4	30	3.0	Supercar	

<b>Brand</b>	<b>Model</b>	<b>Variant</b>	<b>Starting Price</b>	<b>Type</b>	<b>Battery (kWh)</b>	<b>Electric Range (KM)</b>	<b>0-100KM/H</b>	<b>Body</b>	<b>FBT Exemption Eligible</b>
<b>Mercedes-Benz</b>	<b>GLC</b>	AMG GLC63 perfomance	\$134,300	PHEV	6.1	14	3.5	SUV	
		300	\$134,900	BEV	91	606	7.3	SUV	
	<b>EQE SUV</b>	350 4MATIC	\$144,900	BEV	91	574	6.3	SUV	
		53 AMG 4MATIC	\$191,900	BEV	91	485	3.7	SUV	
	<b>AMG GT</b>	63 S E-Performance 4MATIC+	\$405,300	PHEV	6	14	2.9	Coupe	
	<b>C-Class</b>	AMG C 63 S E-Performance	\$168,077	PHEV	4.84	15	3.4	Sedan	
	<b>EQA</b>	250	\$82,300	BEV	67	426	8.6	SUV	*
		350 4MATIC	\$96,900	BEV	67	400	6.0	SUV	
	<b>EQB</b>	350 4MATIC	\$87,800	BEV	67	371	6.2	SUV	*
		250	\$106,700	BEV	67	360	9.2	SUV	
	<b>EQC</b>	400 4MATIC	\$140,771	BEV	80	430	5.1	SUV	
		300	\$134,900	BEV	89	626	7.3	Sedan	
	<b>EQE</b>	350 4MATIC	\$153,575	BEV	89	590	6.3	Sedan	
		53 AMG 4MATIC	\$189,900	BEV	89	500	3.5	Sedan	
	<b>EQS</b>	450 4MATIC	\$219,900	BEV	120	664	5.6	Sedan	
		53 AMG 4MATIC	\$327,075	BEV	120	526	3.4	Sedan	
	<b>EQS SUV</b>	450 4MATIC	\$194,900	BEV	107	592	6.0	SUV	
		Maybach 680 4MATIC	\$327,990	BEV	125	662	4.4	SUV	
	<b>GLC</b>	AMG GLC 63 S E	\$166,284	PHEV	4.84		3.5	SUV	
	<b>GLC Coupe</b>	AMG GLC 63 S E Coupe	\$171,362	PHEV	4.84		3.5	SUV	
<b>MG</b>	<b>Cyberster</b>	AWD	\$115,000	BEV	77	443	3.2	Roadster	
		Excite	\$38,990	BEV	51	350	7.7	Hatch	*
	<b>MG4</b>	Long Range Excite	\$44,990	BEV	64	450	7.9	Hatch	*
		Essence	\$47,990	BEV	64	435	8.3	Hatch	*
		Long Range Essence	\$55,990	BEV	77	530	6.5	Hatch	*
		Excite	\$44,990	BEV	51	320	8.2	SUV	*
<b>Mini</b>	<b>ZS EVZS EV</b>	Essence	\$47,990	BEV	51	320	8.2	SUV	*
		Essence Long Range	\$55,990	BEV	73	440	8.5	SUV	*
	<b>Aceman</b>	E	\$61,853	BEV	42	310	7.9	Hatch	*
		SE	\$67,063	BEV	54	406	7.1	Hatch	*
	<b>Cooper</b>	E	\$59,769	BEV	41	305	7.3	Hatch	*
		SE	\$64,979	BEV	54	402	6.7	Hatch	*
<b>Mitsubishi</b>	<b>Countryman</b>	E	\$71,292	BEV	64	462	8.9	Hatch	*
		SE ALL4	\$79,567	BEV	64	430	5.8	Hatch	*
	<b>Eclipse Cross</b>	PHEV ES	\$51,790	PHEV	13.8	50	10.8	SUV	*
		PHEV Aspire	\$56,830	PHEV	13.8	50	10.8	SUV	*
		PHEV Exceed	\$61,780	PHEV	13.8	50	10.8	SUV	*
	<b>Outlander</b>	PHEV ES	\$57,290	PHEV	20	84	7.0	SUV	*
<b>Nissan</b>	<b>Leaf</b>	PHEV Aspire	\$63,790	PHEV	20	84	7.0	SUV	*
		PHEV Exceed	\$69,290	PHEV	20	84	7.0	SUV	*
<b>Peugeot</b>	<b>408</b>	PHEV Exceed Tourer	\$71,790	PHEV	20	84	7.0	SUV	*
		GT Fastback	\$67,990	PHEV	12.4	60	7.8	Sedan	*

<b>Brand</b>	<b>Model</b>	<b>Variant</b>	<b>Starting Price</b>	<b>Type</b>	<b>Battery (kWh)</b>	<b>Electric Range (KM)</b>	<b>0-100KM/H</b>	<b>Body</b>	<b>FBT Exemption Eligible</b>
<b>Polestar</b>	2	Standard Range Single Motor	\$71,400	BEV	69	546	6.4	Sedan	*
		Long Range Single Motor	\$74,400	BEV	82	655	6.2	Sedan	*
		Long Range Dual Motor	\$79,400	BEV	82	593	4.5	Sedan	*
		Long Range Dual Motor Performance Pack	\$89,400	BEV	82	568	4.2	Sedan	*
	3	Long range Dual motor	\$132,900	BEV	111	631	5.0	SUV	
		Long range Dual motor Performance pack	\$159,620	BEV	111	561	4.7	SUV	
	4	Long range Single motor	\$84,500	BEV	100	620	7.1	SUV	*
		Long range Dual motor	\$96,050	BEV	100	590	3.8	SUV	
<b>Porsche</b>	<b>Cayenne</b>	E-Hybrid	\$158,700	PHEV	25.9	86	4.9	SUV	
		S E-Hybrid	\$181,700	PHEV	25.9	88	4.7	SUV	
		Turbo E-Hybrid	\$298,200	PHEV	25.9	79	3.7	SUV	
	<b>Macan</b>	4 Electric	\$133,700	BEV	100	624	5.2	SUV	
		Turbo Electric	\$180,100	BEV	100	591	3.3	SUV	
	<b>Panamera</b>	4 E-Hybrid	\$268,100	PHEV	25.9	96	4.1	Sedan	
		4S E-Hybrid	\$296,600	PHEV	25.9	92	3.7	Sedan	
		Turbo E-Hybrid	\$412,500	PHEV	25.9	92	3.2	Sedan	
	<b>Taycan</b>	Turbo S E-Hybrid	\$486,100	PHEV	25.9	92	2.8	Sedan	
		4S	\$205,300	BEV	79	413	4.0	Sedan	
		GTS	\$248,300	BEV	93	485	3.7	Sedan	
	<b>Taycan Cross Turismo</b>	Turbo	\$281,900	BEV	105	626	2.7	Sedan	
		Turbo S	\$352,600	BEV	105	626	2.4	Sedan	
		Turbo GT	\$416,600	BEV	105	600	2.3	Sedan	
<b>Renault</b>	<b>Megane</b>	Turbo Cross Turismo	\$284,600	BEV	93	472	3.3	Crossover	
		4 Cross Turismo	\$185,200	BEV	93	469	5.1	Crossover	
	<b>Rolls Royce</b>	4S Cross Turismo	\$216,200	BEV	93	625	4.1	Crossover	
		<b>Spectre</b>	\$770,000	BEV	102	530	4.5	Coupe	
	<b>Skoda</b>	Techno	\$64,900	BEV	60	454	7.4	SUV	*
		<b>Enyaq</b>	\$69,990	BEV	82	561	6.7	SUV	*
<b>Smart</b>	#1	RS AWD	\$83,990	BEV	82	530	5.4	SUV	*
		Pro+	\$59,490	BEV	66	420	6.7	Hatch	*
		Premium	\$63,663	BEV	66	440	6.7	Hatch	*
	#3#3	Brabus	\$73,041	BEV	66	400	3.9	Hatch	*
		Pro+	\$62,621	BEV	66	435	5.8	SUV	*
	<b>Subaru</b>	Premium	\$66,789	BEV	66	455	5.8	SUV	*
		Brabus	\$76,167	BEV	66	415	3.7	SUV	*
<b>Solterra</b>	AWD	\$77,990	BEV	71	414	6.9	SUV	*	
	AWD Touring	\$83,690	BEV	71	414	6.9	SUV	*	

<b>Brand</b>	<b>Model</b>	<b>Variant</b>	<b>Starting Price</b>	<b>Type</b>	<b>Battery (kWh)</b>	<b>Electric Range (KM)</b>	<b>0-100KM/H</b>	<b>Body</b>	<b>FBT Exemption Eligible</b>
<b>Tesla</b>	<b>Model 3</b>	RWD	\$60,127	BEV	60	513	6.1	Sedan	*
		Long Range	\$70,547	BEV	79	629	4.4	Sedan	*
		Performance	\$87,219	BEV	79	528	3.1	Sedan	*
	<b>Model Y</b>	RWD	\$61,169	BEV	60	455	6.9	SUV	*
		Long Range	\$75,757	BEV	79	533	5.0	SUV	*
		Performance	\$89,303	BEV	79	514	3.7	SUV	*
<b>Toyota</b>	<b>bZ4X</b>	FWD	\$71,622	BEV	71	436	7.5	SUV	*
		AWD	\$80,892	BEV	71	411	6.9	SUV	*
<b>Volkswagen</b>	<b>Toureg</b>	R eHybrid	\$129,990	PHEV	14.3	51	5.1	SUV	
<b>Volvo</b>	<b>C40 Recharge</b>	Plus	\$78,990	BEV	69	434	7.4	SUV	*
		Twin Ultimate	\$87,990	BEV	78	420	4.7	SUV	*
		Single Motor Extended Plus	\$59,900	BEV	69	475	5.3	SUV	*
	<b>EX30</b>	Single Motor Extended Ultra	\$64,990	BEV	69	475	5.3	SUV	*
		Twin Motor Performance Ultra	\$69,990	BEV	69	450	3.6	SUV	*
		Single Motor Extended Ultra	\$76,990	BEV	82	485	7.3	SUV	*
<b>Xpeng</b>	<b>EX40</b>	Twin Motor Performance	\$81,990	BEV	82	520	4.8	SUV	*
	<b>XC60</b>	T8 PHEV	\$92,390	PHEV	18.8	81	5.2	SUV	
	<b>XC90</b>	T8 PHEV	\$128,390	PHEV	18.8	77	5.3	SUV	
	<b>G6</b>	Standard Range	\$54,800	BEV	66	435	6.9	SUV	*
<b>Zeekr</b>	<b>G6</b>	Long Range	\$59,800	BEV	87.5	570	6.2	SUV	*
	<b>009</b>	AWD	\$135,900	BEV	116	686	4.5	SUV	
	<b>X</b>	RWD	\$56,900	BEV	66	540	5.6	SUV	*
		AWD	\$64,900	BEV	66	470	3.8	SUV	*

\* To be eligible for the FBT exemption, vehicles are required to either be a BEV or PHEV with a sale price less than the fuel-efficient luxury car tax limit (FY2024/25: \$91,387). Note that the above list is indicative only and professional financial advice should be sought prior to entering into any vehicle purchase contract to confirm the vehicles eligibility for this EV incentive. Note, some vehicles with a retail price above the limit may also be discounted during different sales, and could become eligible for the exemption as a result.

Please note, every best effort has been made in compiling the above table of available EVs. This table is only an indicative guide to provide an overview of the expanding range of EV models available in Australia. It should not be relied upon to make financial decisions. Please contact your local EV dealer to confirm specifications and pricing.

## Electric utes and vans

<b>BYD</b>	<b>Shark 6</b>	Premium	\$57,900	PHEV	29.58	80	5.7	Ute
<b>Ford</b>	<b>e-Transit</b>	Mid Roof	\$104,990	BEV	68	307		Van
		High Roof	\$106,490	BEV	68	295		Van
<b>Ford (AUSEV)</b>	<b>F-150 Lightning</b>	Luxury Launch Edition (Retail)	\$184,900	BEV	131	515	4.1	Pickup Truck
		Pro (Commercial)	\$169,900	BEV	98	370	4.4	Pickup Truck
<b>LDV</b>	<b>eDeliver</b>	Mid Roof	\$116,537	BEV	89	280		Van
		High Roof	\$118,836	BEV	89	275		Van
	<b>eT60</b>	Standard	\$92,990	BEV	89	330		Ute
	<b>EQV</b>	Standard	\$157,450	BEV	90	418		Van
<b>Mercedes</b>	<b>eVito</b>	Tourer	\$127,018	BEV	90	421		Van
		Panel Van	\$91,677	BEV	66	262		Van
<b>Peugeot</b>	<b>E-Expert</b>		\$86,361	BEV	75	330		Van
	<b>e-Partner</b>		\$65,486	BEV	50	258	11.2	Van
<b>Renault</b>	<b>Kangoo</b>	Maxi ZE 33		BEV				Van

## Electric trucks

Make	Model	Segment	Gross Mass	Battery size (kWh)	Est. Range (km)*	Fast Charging
<b>Foton</b>	<b>T5 - Standard</b>	Rigid	6t (GVM)	81 kWh	<200 km	1.5h
	<b>T5 - Optional</b>	Rigid	4.5t (GVM)	81 kWh	<200 km	1.5h
<b>Fuso</b>	<b>eCanter</b>	Rigid - light	4.5t (GVM)	41.3 kWh	<100km	36min
		Rigid - med	6t (GVM)	83 kWh	<200km	45min
		Rigid - heavy	8.6t (GVM)	124 kWh	<300km	1.3h
<b>Hyundai</b>	<b>Mighty</b>	Rigid	8.3t (GCM)	115 kWh	<200km	1.2h
<b>JAC</b>	<b>N55</b>	Rigid	4.5-5.5t (GVM)	97 kWh	200km	2h
	<b>N75</b>	Rigid	7.5t (GVM)	107 kWh	200km	2h
	<b>N90</b>	Rigid	9t (GVM)	107 kWh	200km	2h
<b>LDV</b>	<b>eDeliver 9</b>	Cab-chassis	4.1 (GVM)	65 kWh	150km	36min
<b>Mercedes</b>	<b>eActros300</b>	Rigid	19t (GVM)	336 kWh	300km	1.25h
		Prime Mover	40t (GCM)	336 kWh	220km	1.25h
	<b>eEconic</b>	Rigid	27t (GCM)	336 kWh	<150km	1.25h
<b>SEA</b>	<b>300 EV</b>	Rigid	4.5-8.5t (GVM)	<138 kWh	<300km	8h
	<b>500 EV</b>	Rigid	15-23t (GVM)	<280 kWh	<350km	14h
<b>Scania</b>	<b>25 P</b>	Rigid	16t (GVM)	165 kWh	250km	1.5h

<b>Volvo</b>	<b>FL Electric</b>	Rigid	16-18t (GVM)	280-375 kWh	<450km	2.3h
	<b>FE Electric</b>	Rigid	21-27t (GVM)	280-375 kWh	<275km	2.3h
	<b>FM Electric</b>	Rigid or Prime Mover	50t (GCM)	360-540 kWh	<300km	2.5h
	<b>FMX Electric</b>	Rigid or Prime Mover	50t (GCM)	360-540 kWh	<300km	2.5h
	<b>FH Electric</b>	Prime Mover	50t (GCM)	450-540 kWh	<300km	2.5h
	<b>FH Aero Electric</b>	Prime Mover	50t (GCM)	450-540 kWh	<300km	2.5h

\*Truck range differs substantially with load, body configuration, road conditions and other variables. Consult each manufacturer's website for more on how range estimations are calculated.

## Electric buses

Make	Model	Segment	Range (km)	Seats (approx.)
<b>Bus &amp; Coach International</b>	<b>Citirider EV</b>	Transit Bus	350km	45
	<b>Classmaster EV</b>	Coach	450km	57
	<b>Fleetmaster EV</b>	Coach	420km	53
<b>BusTech</b>	<b>ZDI-450</b>	Transit Bus	325km	45
<b>BYD</b>	<b>B70</b>	Transit Bus (Small)	200km	18
	<b>BC18B2</b>	Transit Bus	250km	Not available
	<b>BC12B1</b>	Transit Bus	400km	Not available
<b>Challenger</b>	<b>Electric Low Floor</b>	Transit Bus	400km	41
<b>Custom Denning</b>	<b>Element</b>	Transit Bus	500km	45
<b>Foton</b>	<b>Electric City Bus (BJ6123EVCA)</b>	Transit Bus	300km	42
<b>Joylong</b>	<b>EA6</b>	Minibus	300km	14
<b>King Long</b>	<b>EVolution</b>	Transit Bus	300km	43
<b>Nexport</b>	<b>ZE-B 125</b>	Transit Bus	<600km	46
	<b>ZE-B 106</b>	Transit Bus	<350km	36
	<b>ZE-B 86</b>	Transit Bus	<350km	28
	<b>ZE-B 75</b>	Transit Bus (Small)	180km	22
	<b>ZE-C125</b>	Coach	<600km	57
<b>Scania</b>	<b>K-Series</b>	Transit Bus	400km	41
<b>Volgren</b>	<b>Optimus</b>	Transit Bus	>250km	47
<b>Yutong</b>	<b>D7E</b>	Minibus	200km	24-28
	<b>E12</b>	Transit Bus	320km	65
	<b>C12E</b>	Coach	500km	57
	<b>EZ7</b>	Minibus	300km	12
<b>Zero Ebus</b>	<b>Volt GT E-Series</b>	Coach	600km	57
<b>Volvo</b>	<b>BZL Electric</b>	Transit Bus	300km	Not available



# State of Electric Vehicles

## 2024

