



**AUSTRALIAN AUTOMOTIVE  
AFTERMARKET ASSOCIATION**

Response to the House of Representatives Standing Committee  
on Climate Change, Energy, Environment and Water

Australian Automotive Aftermarket Association (AAAA)

## **Submission To The Inquiry Into The Transition To Electric Vehicles**

March 2024



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## FOR FURTHER INFORMATION

Lesley Yates  
Director Government Relations and Advocacy  
Australian Automotive Aftermarket Association  
[REDACTED]

AAAA National Office  
7 – 8 Bastow Place,  
Mulgrave VIC 3170  
Ph: 03 9545 3333

[www.aaaa.com.au](http://www.aaaa.com.au)

# PREFACE

**The Australian Automotive Aftermarket Association (AAAA) welcomes the opportunity to contribute to the House of Representatives Standing Committee on Climate Change, Energy, Environment and Water's Inquiry Into the Transition to Electric Vehicles.**

As the peak body of the automotive aftermarket in Australia – an industry which is integral to the safety, functionality, and personalisation of vehicles post-purchase – we are committed to guiding our sector through the challenges of this transition.

Through detailed research commissioned by AAAA, we know our workshops are ready to be, and in a lot of cases already are, the trusted partner for EV and hybrid owners Australia-wide.

There is no question we have the knowledge, the skills, the equipment, and a proven track record; and this will increase as more and more workshops invest in this area.

Our workshops technicians are experts in their field, constantly learning and investing in skills and tools, and are ideally placed to continue servicing EVs and hybrids, as they have been for many years.

At the same time, we know Australia's registered car fleet is diverse, and EVs currently make up less than one percent of the total car parc.

As such, we are pleased to see that while there is a strong focus on EVs and hybrid readiness, some workshops also remain committed and focused on ICE (Internal Combustion Engine) servicing and repair, ensuring all customers can access expert servicing and repair for their car, no matter what it is.

As the industry's representative, we are embracing the challenges and opportunities presented by the transition to electric vehicles, advocating for policies and practices that support a dynamic, competitive, and sustainable automotive aftermarket.

Our goal is to ensure that our industry not only adapts to but thrives in this new era, continuing to provide essential services to Australian vehicle owners.

In presenting this submission, AAAA underscores its commitment and the commitment of its members to innovation, quality, and consumer service.

As we navigate this transformative period, AAAA stands ready to collaborate with all stakeholders to ensure the transition to electric vehicles is managed effectively, equitably, and sustainably.

We of course welcome government assistance throughout this transition, and there are certainly areas AAAA wants to work on with our government partners, including access to training and equipment.

Having said this, it is important to note that our research shows that more than ever, any calls for introducing regulation on something we are already doing safely and successfully, and any pushes for members of other industries (such as electricians) to be tasked with servicing and repairing cars, are not required.

We believe that through informed debate and the right strategic planning, we can achieve a future that benefits consumers, and the automotive industry.

We sincerely hope that the information contained within this submission is helpful to the House of Representatives Standing Committee on Climate Change, Energy, Environment and Water Inquiry Into the Transition to Electric Vehicles – if we can provide any additional advice or information, we would be pleased to do so.



Stuart Charity  
Executive Director  
Australian Automotive Aftermarket Association

# WHO WE ARE

**The Australian Automotive Aftermarket Association (AAAA) is the peak national industry body representing the Australian supply chain for automotive products, vehicle maintenance, repair, and modification.**

Our industry supports car owners after the purchase of the car, keeping vehicles safe and providing products for modification to make vehicles fit for purpose, including trade and emergency vehicles – in essence, everything that happens to the car after the initial purchase is part of the Australian automotive aftermarket sector.

Our members design and manufacture automotive components; distribute replacement and service parts in real-time; wholesale, import and export automotive parts and accessories, retail tools and equipment; and provide vehicle service, repair, and modification services in every community in Australia.

We support our members with industry and business improvement benefits while also undertaking important advocacy campaigns, providing events and training, and commissioning in-depth and industry-first research to help members make informed decisions.

AAAA and our member companies are proud to passionately defend the reputation and integrity of the independent aftermarket and stand by our products and professionalism.

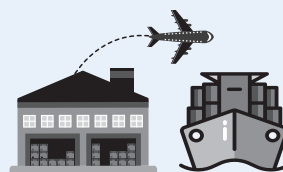
AAAA is also a nominating organisation on numerous Standards Australia committees covering a wide range of parts and accessories, tools, and equipment; and our member representatives are actively involved in the development of product quality standards.



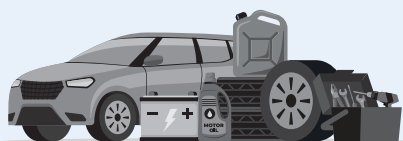
**3,000 Member companies** represented by the Association in all categories of the Australian automotive aftermarket



Members include major national and multi-national corporations as well as a large number of independent small and medium size business



AAAA member companies export over **\$1 billion** worth of Australian manufactured product each year



The parts and maintenance sector is a large and critical component of Australia's \$200 billion automotive industry



AAAA member companies employ more than **40,000 people**



Member companies are located in metropolitan, regional and rural Australia



# RESPONSES TO TERMS OF REFERENCE

AAAA has chosen to provide responses to terms of reference one, two, five, and seven, as follows.

## TERMS OF REFERENCE ONE AND TWO

Due to their interrelated nature, AAAA has chosen to respond to terms of reference one and two jointly.

Terms of reference one and two address the following:

- **Terms of reference one: the establishment of resources, systems and infrastructure required to support transition to EVs**
- **Terms of reference two: the impact of moving from internal combustion engine vehicles, including fuel excise loss, existing auto industry component manufacturers, and the environment.**



## The current state of Electric Vehicles in Australia

It is clear that Electric Vehicles are gaining popularity in Australia – with every release of new car sales data we are seeing large increases in EV sales. For instance, recent data indicates a growth of more than 161 percent year on year,<sup>1</sup> with these sales making up 7.2 percent of total vehicle sales for 2023<sup>2</sup>.

For Automotive Service and Repair businesses and the parts manufacturers and retailers which make and sell parts for vehicle maintenance and enhancements, it is the consumers' choices that drive changes to business operations.

Therefore, when considering this data, it is important to look at the entire landscape of Australia's passenger vehicle registrations.

Road Vehicle Data from the Department of Infrastructure, Transport, Regional Development, Communication and the Arts published in June 2023 highlights that there are just over 72,000 EVs on Australian roads – this makes up less than one percent of total passenger vehicles currently registered on Australian roads.<sup>3</sup>

So, while the month-on-month new car sales data shows the total number of EVs on the road will increase over time, it is not going to happen overnight.

As it always has, our industry is embracing new technologies and over time, as consumers embrace more of these vehicles, our member businesses will adapt and scale their operations accordingly to ensure customers have choices while subsequently allowing prices to remain affordable for all Australians (by having services available in the aftermarket).

It is important to note however, that while we are learning more about EVs every day and our industry is getting ready, the reality is that we just don't know enough right now.

One clear example of this is in the consideration of how EVs operate here in Australia, which has always been a unique market when it comes to automotive manufacturing because of our harsh terrain and climate which requires vehicles to have specific modifications and upgrades that may not be seen in other parts of the world.

The average age of an ICE vehicle in Australia is over 10 years, and over many years of experience in maintaining Australia's vehicle fleet, we have been able to predict what parts of the vehicle will need to be replaced regularly as the car ages and is affected by the driving location, the core purpose of the kilometers driven, and the physical environment.

Conversely, data in the Road Vehicles publication referenced earlier shows that 91 percent of the total EVs currently registered in Australia were manufactured within the last five years.

What these statistics highlight is just how new this new technology is, and how much learning is yet to be acquired about these vehicles and in particular, their performance and wear on Australian Roads.

<sup>1</sup> <https://thedriven.io/2024/01/09/electric-vehicle-sales-final-numbers-on-the-ev-models-added-to-australian-roads-in-2023/>

<sup>2</sup> <https://www.carsales.com.au/editorial/details/vfacts-2023-car-industry-breaks-all-time-sales-record-143992/>

<sup>3</sup> Road Vehicles, Australia, January 2023 | Bureau of Infrastructure and Transport Research Economics (bitre.gov.au)

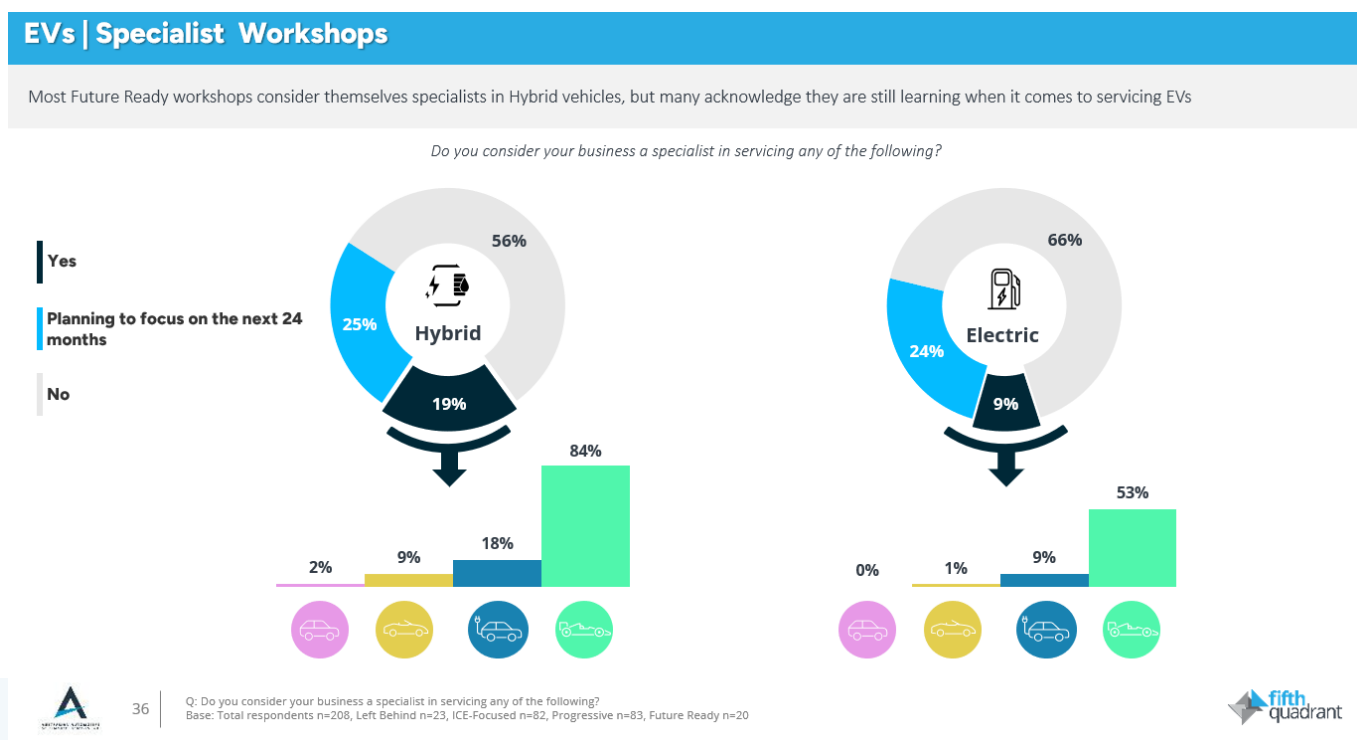
RESPONSES TO TERMS OF REFERENCE ONE AND TWO

**How the service and repair industry is adapting to the current landscape**

While EVs account for less than one percent of the car parc in 2024, the automotive industry is preparing for the rapid year-on-year increase, and some service and repair businesses are already starting to specialise in EV Service and Repair.

Research undertaken by AAAA shows that whilst the vast majority of service and repair businesses do not currently specialise in electric vehicles, nearly nine percent of respondents do already consider themselves EV Specialists, and 24 percent are planning on becoming specialists in the next 24 months as shown in Figure One.

Figure One – AAAA Future Ready Survey, 2023



**Examining specific tools, training, and capital costs required for effective EV servicing and repair**

While the data around those who already identify as a specialist or are planning to focus on EVs and Hybrids in the next 24 months is incredibly strong, we also know the current number of workshops that are capable of servicing and repairing EVs is even stronger.

While not specifically specialising in EVs, our data indicates that 14 percent of workshops are already ready to service and repair EVs with 24 percent planning on doing so in the next 12 months.<sup>4</sup>

When it comes to EV take-up, the role of service and repair capacity is important: we know one of the biggest barriers for motorists looking to purchase a new Electric Vehicle is ensuring adequate infrastructure, including access to service and repair, is readily available.

The fact remains however that for these service and repair workshops, making such a significant investment based on the current number of EVs is a difficult business case to make, especially in times of economic uncertainty.

<sup>4</sup> Australian Automotive Aftermarket Association & Fifth Quadrant (2023). 'Future Readiness Index Report'.

RESPONSES TO TERMS OF REFERENCE ONE AND TWO

**Training**

A recent study commissioned by AAAA found that 33 percent of automotive service and repair workshops now have at least one technician within the workshop that has completed base training in EVs and is therefore trained to depower and reinitialise hybrid and electric vehicles (AURETH101), with another 44 percent planning to undertake formal training within the next 36 months.

While this base foundation is essential for entry level skill for servicing a Battery Electric Vehicle (BEV), further education is essential in order to gain advanced proficiency in diagnosing issues, servicing and repairing BEVs.

Currently, courses including AURSS00064 offered around the country aim to cover all aspects that are required to specialise in EV service and repair (as shown to the right).

While many of our workshops have employees trained in AURETH101, for those wanting to undertake this unit and more advanced competency units, finding availability can be a challenge.

As Electric and Hybrid vehicle intake grows, we find more outer suburban and regional workshops wanting to enrol to be prepared for the future EV customer base.

This desire to invest in our future is resulting in additional pressure on the training system to meet demand and we are seeing an increase in wait lists for these courses.

Further, the introduction of State Government subsidies for these courses has been welcomed by our industry and members and while these subsidies have assisted with short-term uptake, we are finding training providers are having issues keeping up with this uptake, specifically when it comes to having trainers available.

Consequently, these training sessions are often focused in metropolitan areas which is a barrier for many rural and regional workshops.

This is also compounded further when many of these sessions run across multiple days – as an industry that is represented so heavily by small family-run businesses, it is extremely difficult for workshops to close for multiple days, which will lead to a significant opportunity cost.

**AURSS00064 – Battery Electric Vehicle Inspection and Servicing Skill Set and AURSS00037 – Hybrid Electric Vehicle Inspection and Servicing Skill Set**

**DESCRIPTION**

This course covers the fundamental requirements for inspecting and servicing battery electric vehicle (BEV) and hybrid electric vehicle (HEV) systems and components in the automotive retail, service, and repair industry.

**ACCREDITED UNITS**

AURETH101 – Depower and reinitialize battery electric vehicles.

AURETH102 – Inspect and maintain battery electric vehicles.

AURETH103 – Diagnose and repair high voltage rechargeable energy storage systems in battery electric vehicles.

AURETH107 – Diagnose and repair system instrumentation and safety interlocks in battery electric vehicles.

AURETH1010 – Diagnose and repair high voltage rechargeable energy storage systems in hybrid electric vehicles.

AURETH011 – Depower and reinitialise hybrid electric vehicles.

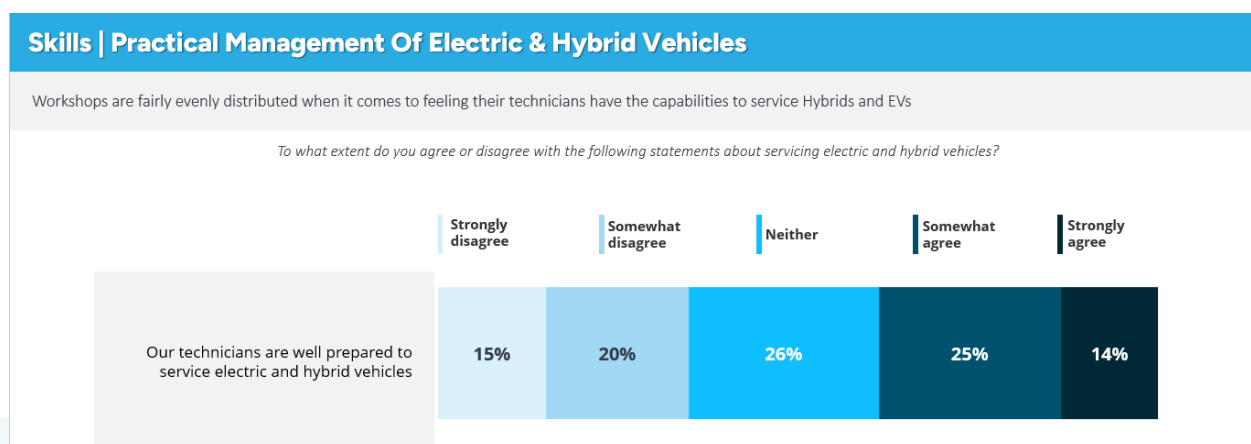
AURETH012 – Service and maintain electrical components in hybrid electric vehicles.

As detailed in Figure Two, 14 percent of workshops are feeling confident their technicians are well prepared to service electric and hybrid vehicles.

This is a statistic which needs to be drastically improved in the coming years in order for motorists to have faith that the infrastructure for their next purchase is already in place.

We commend Governments that have already taken steps to increase training opportunities by subsidising places for light vehicle technicians, but a more long term and sustained approach needs to be considered to ensure opportunities for workshops will exist throughout the entire transition timeline.

Figure Two - AAAA Future Ready Survey, 2023



RESPONSES TO TERMS OF REFERENCE ONE AND TWO

**Current skills shortage impacts**

Research undertaken by AAAA shows that the automotive service and repair industry is currently short by more than 40,000 workers, with this number made up of roughly 27,000 qualified technicians and 13,500 apprentices.

Similar to labour shortfalls for all mechanics, Australia faces a considerable shortfall in qualified EV mechanics, with industry data predictions indicating a need for around 6,000 additional technicians by 2030.

While there has been a significant increase in the number of technicians able to work on EVs, over time we will have a growing gap between the demand for EV specialists and the supply of trained technicians.

This is both a supply issue from training institutions due to a lack of trainers, and a demand issue in the sense that many workshops currently

don't have the labour resources to send staff to additional training when they are already so short staffed.

AAAA believes that the Federal Government has a great opportunity and a significant role to play in supporting the industry through this transitional phase.

From extensive consultation, we know we have skilled workers including experts in the field of automotive service and repair available to many businesses who are currently based outside of Australia.

It is hoped that the introduction of the 'Skills in Demand' Visa announced in December 2023<sup>5</sup> will allow for more specialised workers to fill the void that currently exists to ensure demand for the next generation of auto workers can be met in a timely manner.

**Tools**

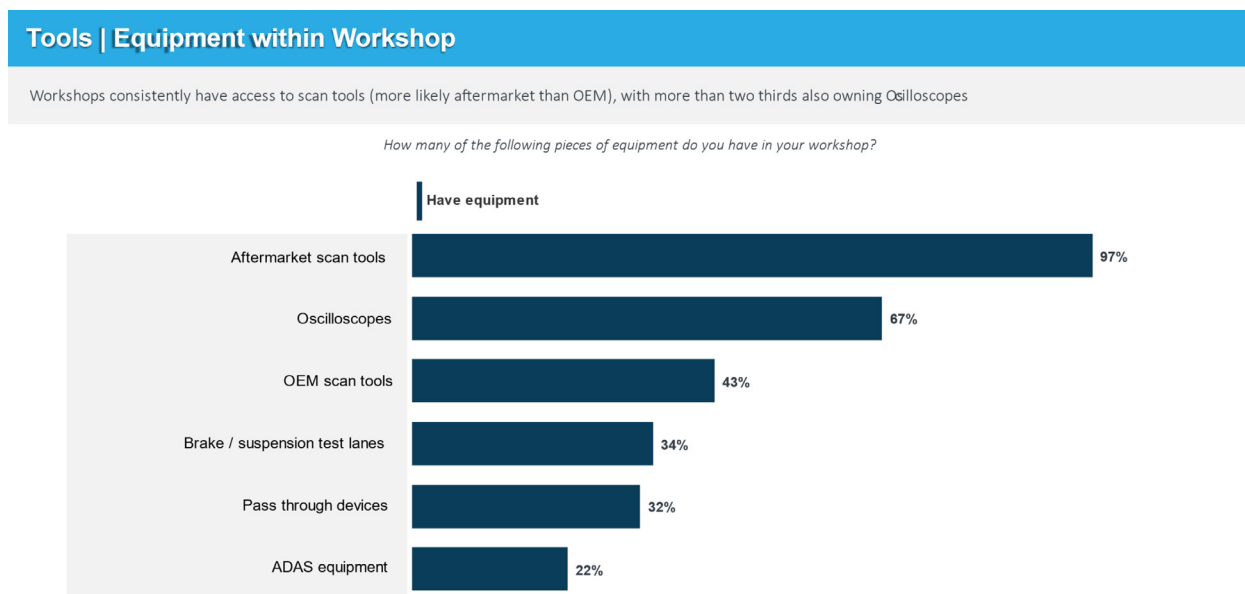
In addition to the investment required for upskilling staff in order to ensure motorists have choice and access to fairly priced service and repair, additional and substantial capital investment is required for the appropriate tools and diagnostic equipment.

Insights derived from the AAAA Future Ready Survey highlight the disparities within the automotive workshops' readiness for this shift.

Further, the investment required for acquiring such specialised equipment is considerable and poses a significant challenge, particularly for smaller or family-owned businesses.

The survey data highlights a 'wait and see' approach among workshops, with 39 percent delaying investments until there is a clear increase in EVs on the road. This cautious approach is underscored by the economic uncertainty, risk, and the initial low volume of EVs.

Figure Three - AAAA Future Ready Survey, 2023



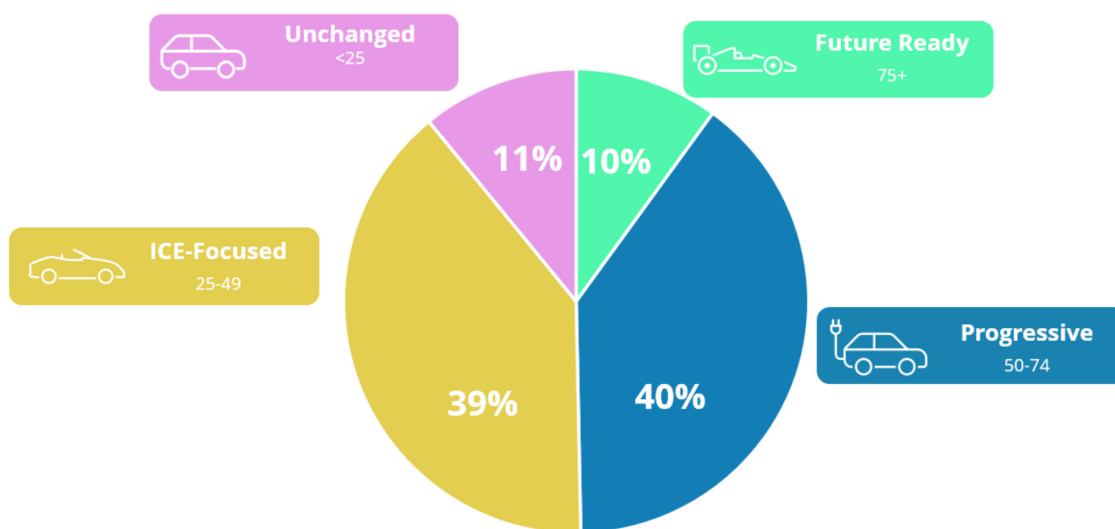
<sup>5</sup> Department of Home Affairs – Migration Strategy - <https://immi.homeaffairs.gov.au/news-media/archive/article?itemId=1153>



RESPONSES TO TERMS OF REFERENCE ONE AND TWO

Future Readiness Index | Distribution

One in ten Australian workshops are currently Future Ready, with around half actively investing in future technologies; key here is to recognise is that the ICE-Focused category are not actively rejecting new innovations, but are instead most likely holding off on investing until they start to see shifts in customer demand (and the Australian car parc)



Base: Total respondents n=208



**Charging equipment and changes to premises required to be able to service and repair EVs**

The final aspect of ensuring that infrastructure is ready for future adoption of EVs is the availability of charging infrastructure and space for EVs.

AAA's research shows that currently seven percent of workshops have EV charging equipment and due to the large cost associated with this investment, 51 percent are currently not planning to purchase any EV charging equipment.

AAA welcomed the WA Government's recent offer of government grants for small businesses to install chargers through the Charge Up Workplace Grant Program<sup>6</sup>, as these chargers add value to both the business as well as the broader community.

AAA encourages other states and the Federal Government to look at similar incentives, with a focus on regional areas that are already lacking in EV charging equipment.

When it comes to suitability of premises, a dedicated hybrid/EV servicing bay is crucial for the safe maintenance and repair of electric vehicles, given their unique construction and operational dynamics.

Currently, 45 percent of workshops report they have or are planning to set up such a facility in the near future. A considerable 30 percent are considering this adjustment in the next one to three years, with eight percent already equipped.

Any lag or delay in setting up additional dedicated bays could pose challenges in catering to the growing EV market effectively.

Addressing these gaps requires coordinated efforts from workshop owners, industry bodies, and policymakers to ensure that the infrastructure is in place to support and provide confidence to those who are considering purchasing an EV.

<sup>6</sup> <https://waresources.smartygrants.com.au/ChargeUpRound2>

RESPONSE TO TERMS OF REFERENCE THREE

## TERMS OF REFERENCE THREE

Terms of reference three is as follows:

**The opportunities for fuel savings, such as by combining EVs with other consumer energy technologies and savings for outer suburban and regional motorists.**

AAAA feels the Government's priority needs to be on ensuring EV Service, Repair and Maintenance infrastructure is available.

### Regional take up of EVs is significantly slower

Electric vehicle (EV) adoption in Australia, while growing, has seen uneven distribution across the country.

Metropolitan areas, particularly in states like New South Wales and Victoria, have witnessed higher rates of EV uptake due to better infrastructure.

In 2023 we only saw nine percent of new EV sales come from regional areas and nine percent come from rural areas, while 82 percent came from inner and outer metropolitan regions.<sup>7</sup>

The concern of our industry is that currently, these figures don't justify the significant investment for regional workshops.

For regional motorists to be able to realise cost savings, it is imperative that infrastructure is in place to allow for fair competition and choice.

The Federal Government's role is pivotal in ensuring EV infrastructure and services are available in regional and outer suburban areas.

Due to the vast distances and lower population densities, likely leading to lower and slower take-up of EVs, EV owners may find themselves in a position of having to drive further for service and repair needs.

This scenario would affect public confidence in the infrastructure and, if there is not enough EV service and repair workshops, a lack of competition in rural areas could lead to potential increased costs for motorists.

Governments at both the State and Federal level could examine ways to continue to fund EV training courses to upskill the many regional service and repair workshops, but also work with industry on effective methods to deliver this training to the regions.



### Battery overheating issues – a key concern in regional areas

Another concern that our members raise regularly is the potential for battery overheating – a concern which has been raised by both service and repair businesses and aftermarket manufacturers.

As mentioned, this technology is still young when compared to other vehicles on Australian roads, and as a result we do not yet know the long-term impact on Battery Management Systems of charging patterns and prolonged exposure to the heat which we experience frequently in regional areas.

While the battery management system is designed to protect against overcharging, over-discharging, short circuits, and excessive temperature<sup>8</sup>, we know that the risk of overheating increases in hot weather.

Lithium-ion batteries, which are commonly used in EVs, function best at temperatures between 20°C and 25°C, and once it reaches 40°C, the battery's components can deteriorate rapidly, impacting the charging rate and performance and potentially putting the battery at risk.

There have been multiple reported instances where Battery Management Systems in electric vehicles have failed or malfunctioned, with these failures attributed to a number of different variables.

To ensure workplace and community safety, AAAA believes that more data needs to be collected on the causes of Battery Management System failures to ensure this risk is correctly understood and managed.

<sup>7</sup> <https://www.abc.net.au/news/2024-03-11/electric-car-sales-in-australia-outer-suburbs-overtake-city/103542014>

<sup>8</sup> <https://www.bsl-battery.com/analysis-of-common-failures-of-bms.html>

RESPONSE TO TERMS OF REFERENCE FIVE

## TERMS OF REFERENCE FIVE

Terms of reference five is as follows:

**The opportunities for expanding EV battery manufacturing, recycling, disposal and safety, and other opportunities for Australia in the automotive value chain to support the ongoing maintenance of EVs.**

Despite Australia's unique position when it comes to mineral access, AAAA does not believe that currently a viable pathway exists for Australian domestic EV battery manufacturing, this is due to the advancements that other markets have made to drive down costs and make them a better economic choice for customers. To further drive down costs battery manufacturing plants are being established in close proximity to vehicle assembly plants. These points were also highlighted by the Productivity Commission's National Electric Vehicle submission.<sup>9</sup>

AAAA feels it is unlikely that Australia would be able to create an industry that could compete with others who are far ahead of us already with systems set up on a mass scale. Having said that, AAAA does feel strongly that there are distinct opportunities and benefits for the exploration and creation of a circular economy around batteries.

It is AAAA's belief that such a circular economy would provide large benefits for consumers economically as it will assist with concerns around battery replacement costs for EVs which are impacting the ability of these vehicles to hold their original value during the resale period.

If the industry can focus on extending the life and efficiency of batteries through innovative circular economy practices, significantly reducing the need for raw material extraction and lowering battery production costs, AAAA believes there will be significant benefits for consumers and for EV uptake across the board, addressing consumer concerns over cost and reliability.

Our Australian Automotive Manufacturing Industry is already specialising in this field with leading technology in battery recycling, but we know there is more work to do in order for our global reputation as a large-scale battery recycler to grow.

We encourage the Government to continue engagement with our industry to develop pathways to ensure that Australian Automotive Manufacturers do not miss the opportunity to be a global leader in Hybrid and Electric battery recycling.



<sup>9</sup> [www.pc.gov.au/research/supporting/electric-vehicle-strategy-submission](http://www.pc.gov.au/research/supporting/electric-vehicle-strategy-submission)



RESPONSE TO TERMS OF REFERENCE THREE

## TERMS OF REFERENCE SEVEN

**Terms of reference seven calls for discussion of any other relevant matters.**

**AAAA would like to use its response to terms of reference seven to call attention to the following items.**

### **The crucial role the MVIS plays in our automotive industry today and as we transition.**

AAAA wants to emphasise the crucial importance of the Motor Vehicle Information Scheme (MVIS) for the transition of the automotive industry to EVs. As modern vehicles increasingly rely on software, access to detailed service information becomes essential for fair competition.

The MVIS ensures that independent repairers can compete on equal footing by providing them with the essential service information needed to work on modern vehicles.

As vehicles continue to use more data, this access is especially important as it enables these shops to tackle complex issues, such as battery management and electronic control problems, traditionally handled only by manufacturers.

The Australian Competition and Consumer Commission (ACCC) plays a critical role in enforcing this.

Rigorous enforcement of MVIS compliance ensures the integrity of the scheme and prevents market monopolisation that could stifle innovation and disadvantage consumers.

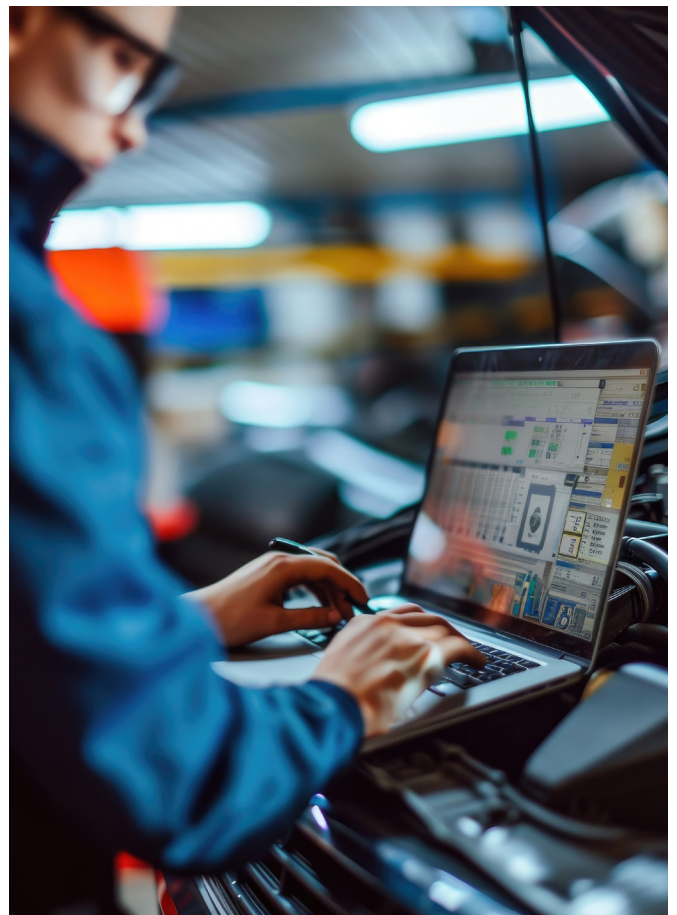
It is essential that the ACCC actively monitors, identifies, and sanctions any breaches of the scheme, thereby safeguarding a balanced industry landscape that nurtures competition, innovation, and consumer choice. Additionally, as the EV market grows, the continuous protection and strict enforcement of the MVIS are more important than ever.

This ensures that independent repairers can access the information they need, leading to a fair market.

This not only keeps standards high but also fosters an environment where innovation can flourish, and independent businesses can stay at the leading edge of automotive repairs and services, which will encourage consumers to have more faith in the EV infrastructure in place.

By ensuring independent repairers have access to the necessary technical information, our industry can focus on learning, upskilling, and investing in new technologies rather than being forced to wage costly battles to access essential data.

As we look ahead, the importance of schemes like the MVIS cannot be overstated – it serves as a foundational pillar for the industry's transition to electric vehicles, allowing for a fair, competitive, and skilled automotive service sector.



# IN CLOSING

**AAAA is the only national organisation representing automotive component manufacturers and vehicle modification, service, and repair.**

We are forward looking – promoting training and awareness of new vehicle technologies – and our industry keeps the community on the road in safe and well-maintained vehicles.

As part of this commitment, AAAA conducts a range of research to fully understand the investment plans of our national automotive manufacturing and repair and service industry.

Included in this research is the Future Ready national survey, which is conducted annually to track changes in investment, skills, tools and equipment, and perception.

This research allows us to understand how the Australian automotive industry is responding to the market forces affected by the change in consumer preferences from internal combustion energy to zero and low emission vehicles.

Informed by this leading research, AAAA has been pleased to participate in this Inquiry and is ready to participate in any further inquiries which seek to fully understand how our manufacturing and service sectors are adapting to change.

This is an important national debate and getting the settings right in 2024 will undoubtedly promote the potential for economic growth and community benefit.

We hope that the information supplied in this submission proves helpful to the House of Representatives Standing Committee on Climate Change, Energy, Environment and Water's Inquiry into the Transition to Electric Vehicles.

If AAAA can provide any additional advice or information, we would be pleased to do so. Requests for more information or data on how our industry is performing and how the industry views our future is available by contacting our Government Relations Director, Ms Lesley Yates, at [lyates@aaaa.com.au](mailto:lyates@aaaa.com.au)







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