

AUSTRALIAN AUTOMOTIVE PRODUCTS
MANUFACTURERS & EXPORTERS COUNCIL

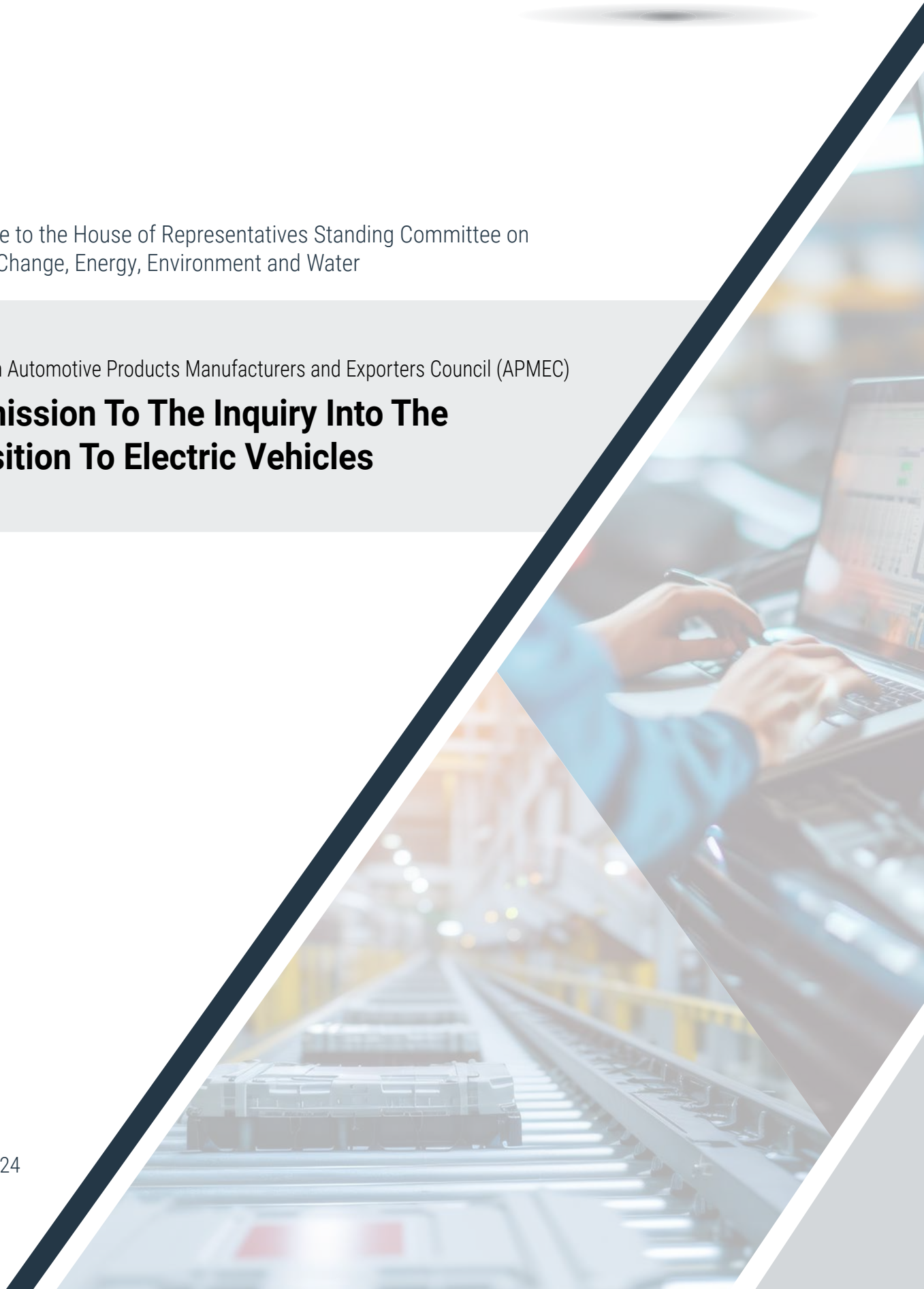


Response to the House of Representatives Standing Committee on
Climate Change, Energy, Environment and Water

Australian Automotive Products Manufacturers and Exporters Council (APMEC)

Submission To The Inquiry Into The Transition To Electric Vehicles

March 2024

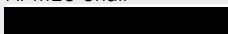


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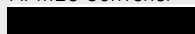
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FOR FURTHER INFORMATION

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APMEC Chair



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www.apmec.org.au

PREFACE

The Australian Automotive Products Manufacturers and Exporters Council (APMEC) welcomes the opportunity to contribute to the House of Representatives Standing Committee on Climate Change, Energy, Environment and Water Inquiry into the Transition to Electric Vehicles.

As a body which represents Australia's major Automotive Manufacturing Aftermarket, we are dedicated towards ensuring our industry can not only adapt but also grow as new automotive technologies begin to gain increased attention and market share.

The automotive landscape is evolving and the introduction of EVs presents a significant change to the entire aftermarket.

However, our industry is no stranger to change; in fact, we have embraced it.

Our industry has continuously evolved, adapting to new technologies, shifting consumer preferences, changing regulatory landscapes, and major manufacturers leaving the Australian market.

Through every phase, our commitment to excellence and progress has remained unwavering and now the aftermarket industry is Australia's automotive manufacturing industry.

We understand the path forward is not just about adapting to change but about leading it, and shaping the future with our innovations, however it is paramount that this transition is sustainable, and beneficial for all.

While we embrace change as an industry, we are also cautious that changes which are not solely consumer driven can create a level of angst amongst our whole industry.

Australia has always been a unique market with a harsh terrain and vast distances in between major metropolitan centres, and we have always provided components that are appropriate for these conditions.

However, with nearly all of the EVs on Australian roads currently under the average age of ICE vehicles, we 'don't know what we don't know' when it comes to how EVs perform under Australian conditions.

This isn't to say we are underprepared, but rather a candid acknowledgment of the complex, uncharted waters we find ourselves in.

This transition is not solely about changing an internal combustion engine to an electric powertrain, it is a review of entire supply chains, consumer behaviour and vehicle use patterns.

It is a task that will not be easy, but one that will be necessary before major funding is spent on infrastructure that can have dramatic impact on the market.

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's Inquiry – if we can provide any additional advice or information, we would be pleased to do so.



Gino Ricciuti
Chair
Australian Automotive Products Manufacturers
and Exporters Council (APMEC)

WHO WE ARE

The Australian Automotive Products Manufacturers and Exporters Council (APMEC) is the leading authority and support system for high-end manufacturing and export growth in Australia's automotive sector.

APMEC was formed in 2015 as an initiative of the Australian Automotive Aftermarket Association (AAAA), the only independent national body representing and supporting the automotive aftermarket industry in this country.

As a AAAA specialist industry council, APMEC plays a vital role in fostering the interests of Australia's broad and diverse landscape of automotive component manufacturing and export, representing those members who are engaged in the production of original equipment and aftermarket automotive products including product design, research and development, or manufacturing.

APMEC is made up of the following committee members:

Gino Ricciuti (Chair) – IM Group
Darrell J Parsons – SGF Asia Pacific
Anthony Kittel – REDARC Electronics
Cal Goodman – CalOffroad
Glareh Kayhoor – HELLA Australia
Penni Donato – Allin Towbars
Glenn Paine – PRO/RACE Performance
Mark Pedder – Pedders Suspension and Brakes
Mark Phillips – Australian Manufacturing Advisory
Heath Moore – Harrop Engineering

Fuelled by a commitment to technological advancement and a passion for industry growth, APMEC provides a platform for its members to pioneer cutting-edge automotive products while championing Australian automotive components on the global export market.



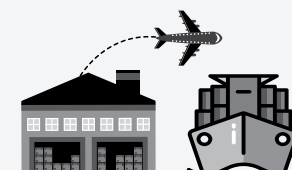
36 percent/\$4b per annum – the percentage of all automotive manufacturing in Australia represented by auto aftermarket manufacturing



10,000 people directly employed



300 companies



\$640m per year of locally manufactured product exported



93 percent expect to grow revenue in next 12 months



70 percent sell their products outside of Australia



Key export markets:
New Zealand, the USA, and Europe



82 percent expect their volume of exports to increase in the next 12 months

These statistics are from the AAAA Manufacturer Research of May 2019, prepared by ACA Research.

RESPONSES TO TERMS OF REFERENCE

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

TERMS OF REFERENCE ONE AND TWO

As Terms of reference one and two have a cause-and-effect relationship, APMEC has chosen to respond to these terms of reference 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 Automotive Aftermarket Manufacturing in Australia

In summarising the current state of Automotive Aftermarket Manufacturing in Australia, APMEC would like to call to your attention to industry data contained within the AAAA's Manufacturer Research of May 2019, prepared by ACA Research.¹

Automotive aftermarket manufacturing represents 36 percent of all automotive manufacturing in Australia – that is more than \$4 billion per annum.

Also important to consider is the fact the aftermarket manufacturing sector alone employs more than 10,000 people directly and exports \$640 million per year of locally manufactured product.

Customers include wholesalers, retailers, resellers, and end-users, with these customers serviced with aftermarket products such as replacement parts, accessories, vehicle modification and performance enhancement products, and workshop tools and equipment.

The aftermarket segment continues to show strong year-on-year growth, with recent research figures revealing that the market has grown from 260 companies in 2015 to 300 in 2024, with 93 percent of these businesses expecting revenue to grow across the next 12 months.

Further, 70 percent of those businesses see developing new products and services as a business priority, indicating a strong growth and innovation mindset.

Of the \$4b in annual revenue, 41 percent comes from direct sales to consumers or trade customers, while a further 39 percent can be attributed to sales to resellers, wholesalers, and retailers.

Parts and accessories are produced for four types of vehicles, with the most common being 4WDs (86 percent) followed by passenger vehicles (70 percent), light commercial vehicles (58 percent) and performance vehicles (56 percent).



Businesses are also producing a range of products, with the most prevalent being accessories (46 percent), engine and transmission products (26 percent), and chassis products (24 percent).

Much of the market is sending its product elsewhere, with 70 percent of these businesses selling their products outside of Australia as of 2019 – an increase of five percent over 2015 figures.

New Zealand (49 percent), the USA (40 percent), and Europe (40 percent) have been identified as the key export markets for Australian businesses, with 11 percent, 20 percent and 15 percent noting these locations as their main export market respectively. In addition, another 14 percent do not currently export, but are actively exploring overseas markets.

Of the total products manufactured by these businesses, 16 percent are exported, equating to \$640m in export revenue, with 82 percent expecting their volume of exports to increase over the next 12 months.

Since the closure of locally produced cars in 2014, much of the effected workforce has moved into supporting the manufacturing of aftermarket parts and accessories, which has ensured local knowledge has continued to be utilised in the producing of parts and accessories for Australia and the rest of the world.

¹ <https://www.aaaa.com.au/wp-content/uploads/2019/06/AAAA-Automotive-Manufacturing-Industry-Insights-FINAL.pdf>

RESPONSES TO TERMS OF REFERENCE ONE AND TWO

Overall, not only is the aftermarket segment significant in terms of its size, it has also long been at the forefront of adapting to consumer needs.

As customer demand shifts, our industry has been ready and waiting with speciality products to meet the market demand that overseas manufacturers have left, and many aftermarket manufacturers are also expanding using high technology innovation and exporting to Asia, Europe, the Middle East, and the USA.

The global demand for speciality components is growing in line with higher SUV sales and the ageing of the vehicle fleet is also supporting demand for specialised vehicle retrofit components.

The value of the Australian aftermarket is also significant outside of the automotive industry sector, with aftermarket members regularly providing components for critical applications such as defence, mining, and emergency service vehicles to ensure they are fit for Australia's harsh terrain.

In the face of strong import penetration, our industry's response has been to move up the value chain in all areas from service parts to high-value specialty products with a technological advantage, such as components for 4WD, high performance, and motorsport applications.

These products are purchased on innovation, performance, and features rather than on price, allowing our aftermarket members to adapt for success despite growing amounts of imports into the local market.

This competition has created an aftermarket segment that has the right pre-conditions to be a globally competitive sector.

These businesses have been successful because they have made significant investments in R&D and capital equipment and have a strong export focus, and the future is certainly looking strong for Australian automotive aftermarket manufacturing.

If these industries are to transition, what needs to happen?

Our industry has consistently responded to consumer demand.

The most recent Car Parc data, from the Department of Infrastructure, Transport, Regional Development, Communications and the Arts, highlights that while consumer demand is growing year on year it is not yet at a stage to stimulate major strategic business changes.

This data indicates that currently the number of EVs in Australia makes up less than one percent of the Australian car market.

The registration data from the BITRE Road Vehicles, Australia, January 2023 Report highlights that the types of EV vehicles being purchased currently are not requiring modification.

This is due to the fact that many of the current EV sales are tied to inner city suburbs and not regional/rural areas where vehicles require additional modifications because of the harsher terrain.

In the table below, you can also see the projected growth of EV share of the light vehicles in the Australian car parc through to 2030.

Three scenarios are presented representing low, base, and high uptake, with the highest predictions still only accounting for a share of 5.6 percent in 2030, and the lowest prediction sitting at 3.2 percent.

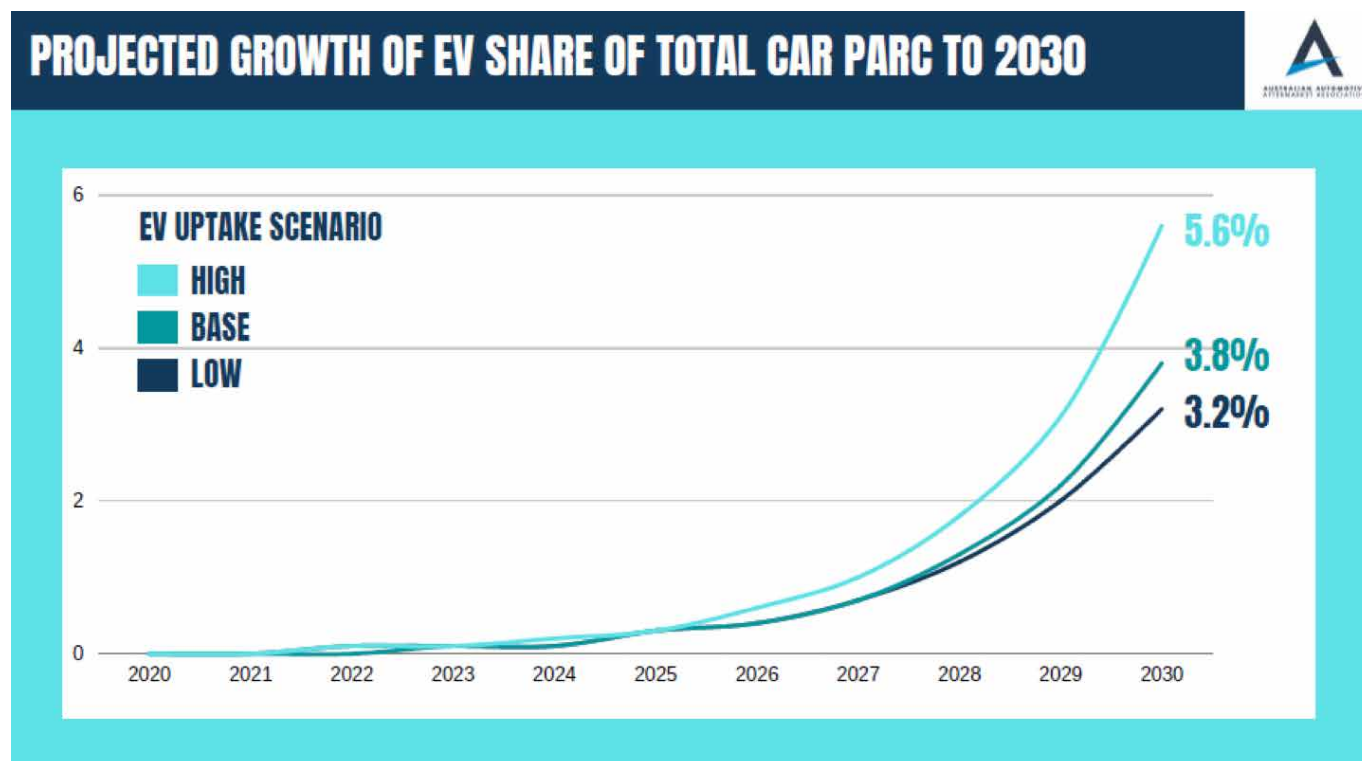
Of the EVs on our roads, less than two percent of EVs were purchased more than 10 years ago, as shown in the table below, which is still younger than the average ICE vehicle on Australian roads.²

This correlates to a lack of long-term data on how EVs fair on the Australian road, which makes it difficult for manufacturers to determine what parts are failing at what part of the vehicles' life, unlike for ICE vehicles which have been studied for decades.

AUSTRALIAN PASSENGER VEHICLE REGISTRATIONS							
Year	Petrol	Diesel	Dual Fuel	HEVs	BEV/FCEVs	Other	Total
2021	12,452,360	2,035,379	98,127	204,510	15,700	37,416	14,843,492
2022	12,508,059	2,112,376	88,104	276,371	33,776	34,227	15,052,913
2023	12,579,425	2,202,186	80,658	361,580	72,248	31,515	15,327,612

² BITRE Road Vehicles, Australia, January 2023 <https://www.bitre.gov.au/publications/2023/road-vehicles-australia-january-2023>

RESPONSES TO TERMS OF REFERENCE ONE AND TWO



AAAA projected EV growth as a total share of all light vehicles by 2030



Year of manufacture	Number of EV vehicles
Pre 2014	1,328
2014	444
2015	793
2016	889
2017	1,530
2018	1,160
2019	5,804
2020	5,328
2021	18,699
2022	36,273
Total	72,248

RESPONSES TO TERMS OF REFERENCE ONE AND TWO

We currently have no way to assess what these impacts would be, and therefore, we are unable to predict what infrastructure is needed in order to support the transition.

One major concern that is felt right across the industry is determining what products will and will not be used and what weight barriers will prevent certain aftermarket parts from being used.

Because EVs tend to be on average 2.5 times heavier than a standard ICE vehicle, it needs to be determined what impact weight will have on what accessories are able to be installed under the current Australian Design Rules (ADRs).

Some modeling out of the US has given some guidance on components likely to experience growth or declines.

The AAPEX EV Trend 2023 Report uses the assumption that EV sales will be 60 percent of total year car sales by 2035 (in the US).

This surge in EV adoption is expected to result in a decline in demand for traditional Internal Combustion Engine components, such as alternators, starters, engine cooling systems, and exhaust and emission parts.

However, the report illuminates areas of growth within the aftermarket, ensuring manufacturers can continue operations amidst rising EV uptakes.

Notably, chassis components, including items such as steering racks, ball joints, and shock absorbers, are forecasted to maintain robust growth regardless of the vehicle's propulsion system.

This sustained demand is attributed to the universal need across both EV and ICE vehicles, indicating a stable market segment for manufacturers focused on these components.

Similarly, Advanced Driver-Assistance Systems (ADAS) components are expected to experience significant growth due to the industry-wide push towards more automated and safer vehicles. Components like ultrasonic sensors, radar sensors, cameras, and central processors for ADAS are becoming increasingly prevalent in both EVs and ICE vehicles, presenting a burgeoning market.³

While this data is useful for understanding the shifts in the automotive aftermarket, further analysis is required to ascertain how the Australian market, with its unique automotive landscape and consumer behavior, will adapt to these global trends.

APMEC is in the process of developing a national Automotive Technology Roadmap for this transition which will aim to provide Australian manufacturers with a clearer pathway to investing in production for EVs.



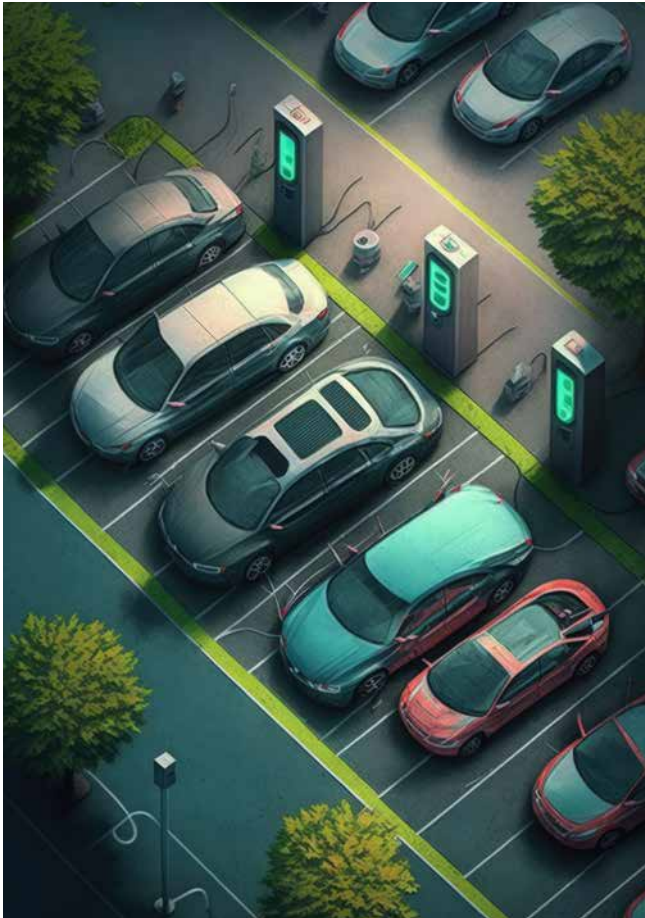
When appropriately supported and funded, the Australian Automotive Technology Roadmap will:

1. Ascertain the supply chain of EV parts and accessories in Australia to determine what manufacturers are already adapting, what manufacturers can transition, and what manufacturers are unable to transition.
2. Simulate the future Australian and International Car parc to calculate the impact on our current industry profile and economic performance.
3. Examine and estimate the likelihood of new entrants into our market and the investment and jobs implications of these new players.
4. Examine the likelihood of domestic vehicle production and the probability of production and elaborately transformed manufacturing goods.
5. Produce a plan for future investment in skills and research to support a future Australian automotive industry.

In addition to engaging external consultants, APMEC will convene a program of national consultation with members to discuss potential government policy and industry initiatives to support the future growth of our industry.

³ AAPEX 'Joint EV Trends and Outlook Forecast 2023 Annual Update'

RESPONSES TO TERMS OF REFERENCE ONE AND TWO



There are also a number of current infrastructure barriers in place which pose a threat to this transition.

In particular, there is a need for national harmonisation.

We represent a national body which makes goods for everyone in the country, yet we are still seeing states go their own way.

This makes it difficult to invest in new technologies which are currently regulated differently from state to state.

For example, in Queensland, vehicle owners must follow set vehicle standards guidelines and relevant approved codes of practice for modifications. Queensland adheres to the Queensland Road Vehicle Modification Handbook for light vehicles under 4.5t GVM and modifications may need to be reviewed and approved beforehand, with fees applicable for certain vehicle categories. Notable modifications such as changes in engine, suspension, GVM, or GCM must be inspected and certified.

At the same time, New South Wales, South Australia, Western Australia, the Northern Territory, Victoria, and Tasmania all reference the National Code of Practice (VSB 14), and some also have additional local requirements.

For example, maximum tyre increase and suspension lift are generally capped at 50mm without engineering approval across the majority of states, whereas in others, a certified engineering approval would be required. Body lifts are usually permissible with certification, and GVM and GCM upgrades are possible with varying conditions for pre and already registered vehicles – something not possible in Queensland. And notably, in WA, GCM upgrades are not possible for already registered vehicles, which is a contrast to other states where this is feasible under certain conditions.

We could provide many examples of the differences in regulation for in-service vehicles. However, what is obvious is that national harmonisation is essential if we are to achieve the economies of scale that are a pre-requisite for a sustainable industry.

We are aware the National Transport Commission has scheduled a review of Vehicle Standards Bulletin 14 (VSB 14) before the end of 2025. This Bulletin has substantial implications for Australia's Automotive manufacturing industry and whilst we are yet to be engaged with the NTC process, we would expect to see how the NTC intends to consult with industry prior to the end of 2024 and look forward to being a part of this process.

In summing up APMEC's response to terms of reference one and two, APMEC Chair and IM Group Executive General Manager, Gino Ricciuti, deftly summaries the industry perspective as follows:

"Unfortunately, as much as we would like to predict what the infrastructure needed looks like, we don't know what we don't know.

We are still in the very early stages of this transition and to claim that one particular person or organisation knows what the best option for consumers looks like is purely guessing.

This is an issue that large amounts of initial money won't solve. For progress to occur we need those involved in the industry to be collecting data, undertaking modeling based on that early data, and reporting back in a consultative matter.

The industry wants to be involved in these changes and we believe that a data led approach will ensure that the infrastructure that is put in place for this transition keeps pace with what the market wants and needs."

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.

APMEC does not believe that Australia has commercially viable pathways for domestic EV battery manufacturing at this point in time.

Recent analysis from the Productivity Commission in their submission to the National Electric Vehicles Strategy has reiterated previously stated concerns that despite Australia's domestic advantage in critical minerals and the ability to increase domestic processing, it is unlikely to deliver an industry that is able to compete with other countries who have already set up these systems on a mass scale.⁴

While APMEC believes EV Battery Manufacturing may not be commercially viable for Australia, we do believe it is crucial for Australia to develop a circular economy around batteries.

There are two main points which drive this belief for APMEC, as follows:

1. Consumer economic/reliability benefit

On average EVs are only holding 40 percent of their original value for their resale price. This is an extremely concerning trend when traditional ICE vehicles are holding roughly 70 percent to 80 percent of their original value.

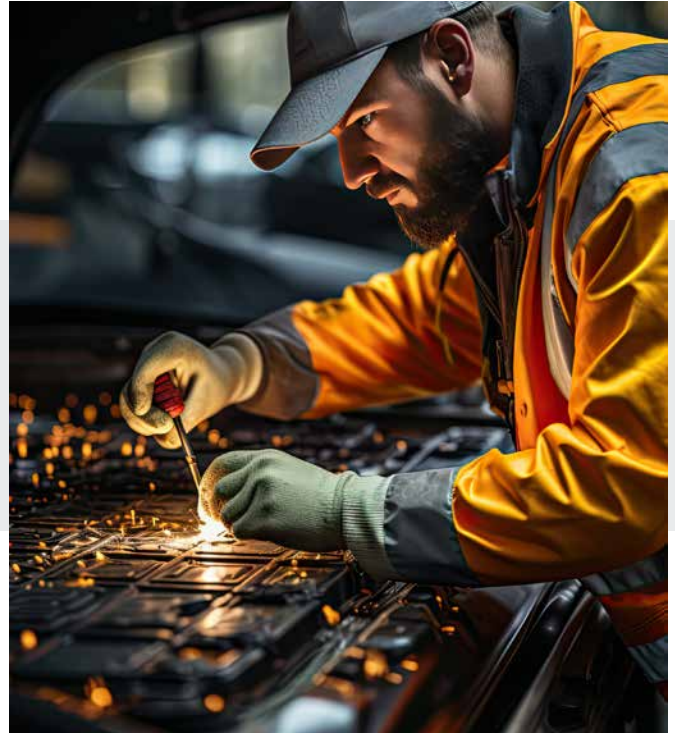
In Australia the second-hand car market is significant and provides various options for consumers to be able to purchase a vehicle, which is a necessity for most Australians.

One of the major reasons EVs are not holding their value within this market is the battery itself. As data on battery life and battery management systems has been very mixed, we are witnessing this price being baked into the second-hand price of EVs.

Based on consumer trends and data, more people are holding off on purchasing a new vehicle. Yes they are considering EVs, but they believe the technology is still in its infancy and are wary of spending \$50,000 on a vehicle that potentially loses 60 percent of its value.

We are also finding that people are being extremely wary of purchasing second hand EVs, as they feel the purchase of a \$20,000 battery may be imminent.

For EVs to be a viable alternative for consumers, they must be cost-effective and reliable.



Battery life has been listed as a major concern for many motorists considering the purchase of an EV. In response, APMEC believes Australia should focus on extending the life and efficiency of batteries through innovative circular economy practices.

This will involve remanufacturing, repurposing for stationary energy storage, and recycling; significantly reducing the need for raw material extraction and lowering battery production costs.

This approach not only addresses consumer concerns over cost and reliability, but also ensures the sustainable use of resources, making EVs a more attractive and viable option.

2. Environmental considerations

The push towards EVs has also been largely driven by their perceived environmental benefits over traditional combustion engine vehicles.

However, the full potential of these benefits can only be realised through a circular economy for batteries.

Early data on battery life has been inconclusive and this is already leading to more batteries ending up in landfill as battery management systems fail, rather than the battery itself. This is causing major issues around the environmental purpose behind purchasing an EV.

Transitioning to a sustainable circular economy can drastically reduce waste and carbon footprints by repurposing and recycling battery components.

Implementing such systems will allow for the repurposing of EV batteries for secondary uses, such as energy storage, and eventually recycling their valuable materials, which will mean Australia can significantly mitigate the environmental impact associated with battery disposal and production, aligning with the consumer's environmental motivations for purchasing EVs.

This approach not only minimises environmental harm, but also supports the global movement towards more sustainable energy solutions.

⁴ www.pc.gov.au/research/supporting/electric-vehicle-strategy-submission

RESPONSE TO TERMS OF REFERENCE SEVEN

TERMS OF REFERENCE SEVEN

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

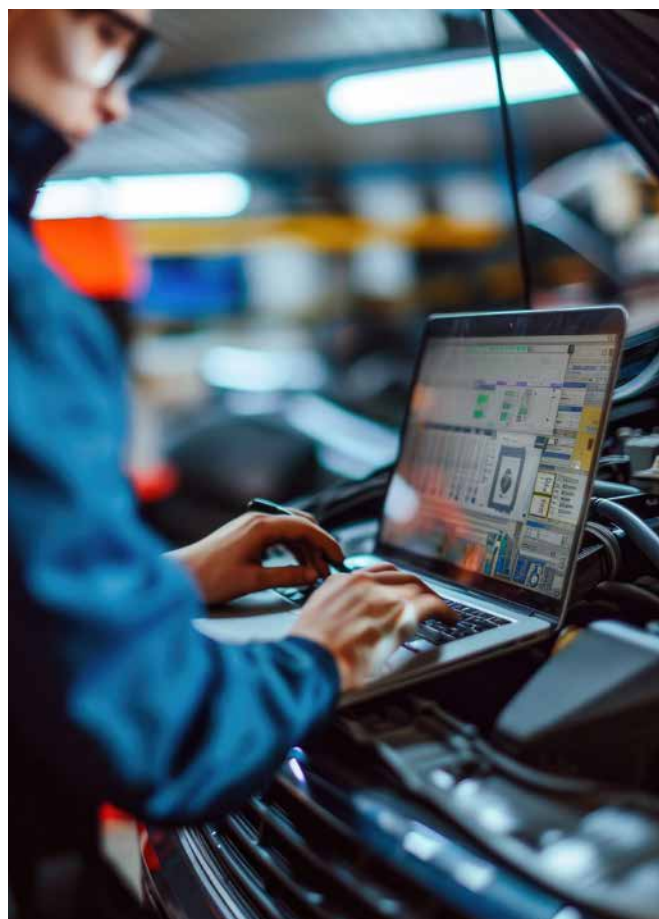
In response to this term of reference, APMEC would like to highlight its stance that hybrid vehicles may be the best fit for many consumers and businesses.

A look at the market shows that hybrids are still extremely popular cars which give consumers the economic benefits of battery power but with the back-up reliability of ICE vehicles.

These vehicles have been around for decades, have been able to be tested over many years and as technology has evolved, they have given our industry the experience needed to produce high quality products, with statistics showing increased popularity especially in urban fringe and regional areas.

Hybrids are a transition vehicle with 2.3 percent of the total passenger vehicles on Australian roads and reliable technology and consumer trust. As such, these vehicles should be included in all transition plans.

APMEC would also like to again reiterate the importance of generating good wear and tear (Vehicle in Operation) data, to enable the industry to pivot in operations and serve/preempt future customer demand.



RECOMMENDATIONS

In considering the issues relevant to the transition to EVs, it is clear that without vehicles in operation data, we cannot fully understand the parts manufacturing transition impact.

To get the transition right, we need to ensure we are making decisions based on real data – only then can we be sure we are making the best possible steps forward towards a prosperous and effective automotive and manufacturing future here in Australia.

As such, APMEC recommends that Government considers a co-investment to assist with the New Technology Roadmap. Our thriving aftermarket industry in Australia is able to adapt to change, however it is not known at this stage when key players in our industry can adapt and to what level.

A new technology roadmap will allow our industry to pinpoint what manufacturers are able to transition and at what rate. This knowledge will be essential for consumers in their decision making on new vehicle purchases.

AMPEC also recommends the establishment of a data portal for automotive aftermarket suppliers which can track EV vehicle data ‘as it happens.’

We propose a model similar to the one employed by the Australian Automotive Service and Repair Authority (AASRA) and its portal, which already exists for automotive service and repair.

The creation of such a data portal would allow suppliers to see what consumers are having issues with, while also being able to track the life of EV batteries.

For instance, as we have seen with ICE vehicles, the effects of driving a thousand kilometers on inner city roads compared to a thousand kilometers on a rural road are vastly different.

A comprehensive data portal such as that which APMEC envisages would allow industry members to see the effects of battery degradation for vehicle owners that have to take longer trips compared to short trips and allow them to make market decisions based on those findings.

Clearly the House of Representatives Standing Committee on Climate Change, Energy, Environment and Water recognises the value of considered research and analysis, hence the instigation of this Inquiry. It is APMEC’s assertion that before we do anything, first we must gather and evaluate the data to ensure the next steps we take, are the right ones.



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