06.-02.2023

MOTOR TRADERS' ASSOCIATION OF NSW

Inquiry into electric vehicle (EV) Adoption in the ACT

Submission

Standing Committee on Planning, Transport and City Services.

Via email: LACommitteePTCS@parliament.act.gov.au

Who we are.

Founded in 1910 the Motor Traders' Association of New South Wales (MTA NSW) is an employer's association and a Registered Training Organisation (RTO) dedicated to representing business owners and business principles – large and small, metropolitan, and regional – in the automotive industry in New South Wales (NSW).

MTA NSW is the largest representative organisation for the automotive industry in NSW, with over 3000 members across the state.

MTA NSW provides a range of services to our members including employee relations assistance, industrial relations advice, advocacy, and training.

MTA NSW's training division has for over twenty-five years provided classroom and onsite training across a multitude of skills relevant to the automotive industry.

MTA NSW is now the largest independent trainer in automotive in NSW with over 2000 students and employing 45 trainers.

Our aim is to help the motor industry and we achieve this by assisting our members in the daily running of their businesses. We also work to ensure the public's confidence in dealing with MTA NSW members through our Code of Ethics, a landmark statement that sets out the standard behavior MTA NSW members must follow in their dealings with the public.

Our 28 divisions represent the lifecycle of the automotive industry and include the following:

- Automotive dealers
- Automotive electricians
- Heavy vehicle repairers
- Light vehicle repairers
- Body repair
- Motorcycle
- Tractor and agricultural equipment

Motor Traders' Care (MTC), a subsidiary of MTA NSW, provides specialist consultancy to automotive businesses to improve their knowledge and understanding of workplace health and safety.

Introduction

The Motor Traders' Association of New South Wales (MTA NSW) thanks for Standing Committee on Planning, Transport, and City Services for the opportunity to make a submission on the *Inquiry into electric/ vehicle (EV) Adoption in the ACT*.

Our country and our industry are at a pivotal point. The effects of climate change are now being felt around the world and across our country.

We know that the transport sector is a key contributor to greenhouse gas emissions. The transport sector was responsible for 18.6 per cent of annual emissions in 2021[1] and between December 2020 and December 2021, emissions in the transport sector rose from 18.5 Mt CO2-e to 23 Mt CO2-e[2]

To combat the effects of climate change means reducing carbon emissions across all sectors and with transport being a major contributor to emissions transforming the automotive fleet to Zero and Low-emission vehicles (ZLEV) is an area where our industry will play a critical role.

However, the transformation to a ZLEV future will be extremely challenging for the industry. Decisions on the transition of the fleet need to be predicated on the knowledge that globally the moves to electric vehicles have been underway for over 20 years and that Australia is around 10 years behind in this journey.

The transition from conventional internal combustion engines to newer ZLEVs will for small businesses mean increasing capital outlays for retooling and reskilling.

A faster transition will need to be built on investment and the twin goal of industry and government should be to assist businesses and consumers along the journey of transformation with as little disruption as possible as the risk of knee-jerk policy positions or rushed implementation risks unintended consequences which could derail the transition to a low emissions future.

The Motor Traders' Association would welcome the opportunity to discuss any matters in this submission with the Standing Committee at the Standing Committee's earlierst convenience.

Yours sincerely

Collin Jennings
Head of Government Relations and Advocacy

[1] Department of Climate Change, Energy, the Environment and Water National Greenhouse Gas Inventory Quarterly Update

[2] Department of Climate Change, Energy, the Environment and Water National Greenhouse Gas Inventory Quarterly Update

MOTOR TRADERS' ASSOCIATION OF NSW

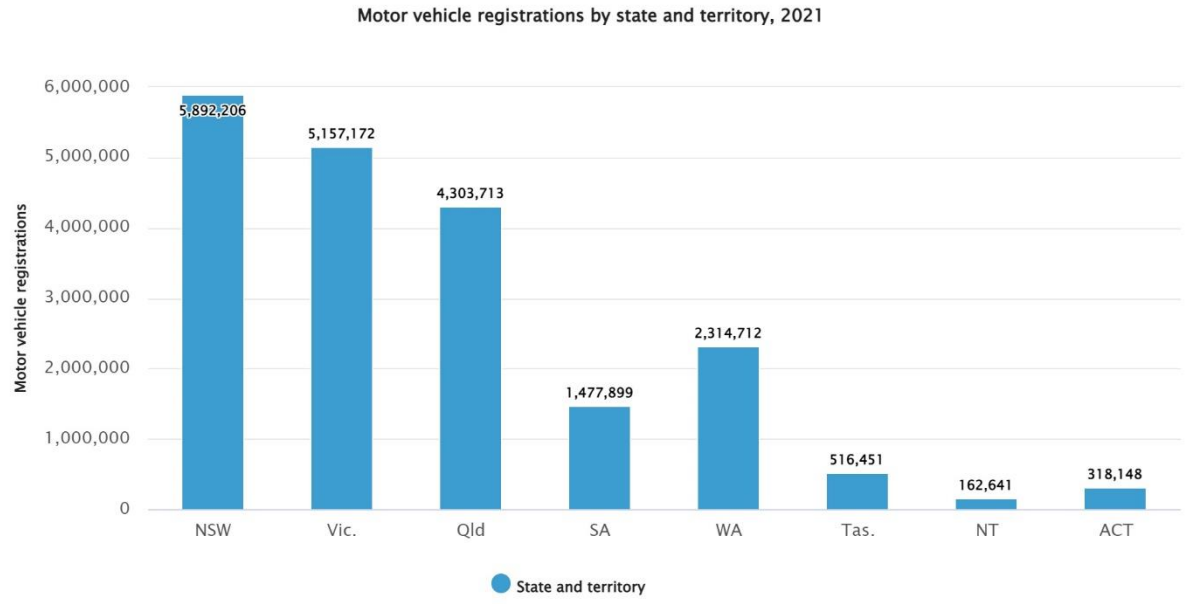
Executive Summary

The ACT Government has set a high bar for Zero and Low-Emission Vehicles (ZLEVs) compared with other state and territory jurisdictions. The ambition of 80-90 per cent of all new vehicle sales to be EV (whether that is a battery electric and/or hydrogen fuel cell) is ambitious.

The Territory Government's strategy sets the actions the Government wishes to take to achieve its 80-90 per cent target by 2030. To put this target into perspective if current new car sales were maintained from 2022 until 2030 the number of new electric car sales would need to reach 12 983. In 2022 the number of electric vehicles sold in the ACT was 1280[3]

Of the 1,081,429 new cars sold in Australia in 2022[4] (the second-highest number of new vehicles purchased since 2018), the ACT represented 1.4 per cent of all new vehicles sold in Australia.

Across Australia, in 2022 new electric vehicle sales were just over 33 000 units sold or 3.1 per cent of the market share. While this is an improvement from the previous year the gap between EVs and internal combustion engines is still very apparent.



Source: Australian Bureau of Statistics, Motor Vehicle Census, Australia 31 Jan 2021

[3] Australian Electri Vehicle Association - ACT EV statistics

[4] VFACTS January 2023: Ford Ranger tops new-car sales, Tesla Model 3 third - Drive

The current global availability of electric vehicles still remains low. Car manufacturers are increasingly committing to converting their fleets to all-electric however, the average timeline for these conversions is around 2030. It must also be added that the production of right-hand drive vehicles globally only represents approximately 10 per cent of new cars so any conversion of fleet manufacture to electric will commence with the more dominant left-hand drive market.

There has been significant uptake in electric vehicles year on year and this is expected to continue, however, there are several factors that governments need to consider as they set policy positions to increase the electric vehicle fleet and wind up the internal combustion fleet, specifically:

- Skills and training
- The roll-out of Zero and Low Emission infrastructure
- Assisting small and medium businesses to transition.
- Developing a well-defined end-of-vehicle life strategy that will protect the environment.
- Planning and regulatory flexibility.

Governments across Australia need to focus on policy areas that recognise:

- The supply of EVs to Australia's small, right-hand drive market will require a clear framework and strong government intervention
- The uptake of EVs, at least during the transition period, is contingent on the level and timeframe of financial incentives
- Financial incentives should be framed to ensure there is equity of access to EVs
- There needs to be a comprehensive and fit-for-purpose rapid charging network. The benchmark for public charging stations is one charging station for every 10 EVs and charging banks of between six to eight chargers every 50 – 75km along major highways
- There needs to be a focus on developing standard charging infrastructure (e.g. generic payment systems and charge points.)
- Changes to legislation to enable the uploading and downloading of power from bi-directional vehicles to homes and commercial properties should be implemented
- Consideration is required to exploit current infrastructure by supporting EV charging facilities in automotive business premises such as dealerships, independent repairers, and fuel service stations
- Planning for an EV fleet should not focus only on electricity as a source of fuel, hydrogen should be actively supported through government policies and programs for motor vehicles as well as heavy vehicles
- Enhanced EV workforce skills development will be an important factor in supporting a sustainable EV transition.

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The ZLEV challenge

MTA NSW supports the transformation of the Territory fleet to ZLEVs. However, there are consumer nuances that the Territory government and policymakers need to consider so that no sector of the economy or the community is disadvantaged or penalised during the transition.

Undoubtedly, there is an increasing consumer appetite for EVs. January 2023 saw the Tesla 3 enter the top three vehicle sales for the month[5], however while this is encouraging the overall uptake of electric vehicles still remains below 5 per cent of all new car sales.

While some government-driven mechanisms aim to reduce the cost of EVs, without the right products to meet consumer demand, it may be challenging to increase the uptake of EVs to meet the ambitious targets of the Territory government.

External to this, supply chain issues and the lack of right-hand drive, dual-cab, and large SUVs being produced in suitable quantity will further hamper the rollout of EVs

Australians are large purchasers of dual-cabs and SUVs – indeed in 2022 the Toyota Hilux was the number one selling vehicle in Australia[6] with 64 391 units sold followed by the Ford Ranger with 47 479 units sold and SUVs made up 55.57 per cent of all vehicles sold YTD in December 2022.

Also critical to the debate on ZLEVs will be the maintenance of the existing internal combustion engine fleet, which will take many years to arrive at its end of life.

While new EVs will come to market as manufacturers convert their stock to electric and hydrogen legacy vehicles will remain in circulation for many years to come.

MTA NSW welcomes the ACT Government's *Zero Emissions Vehicles Strategy 2022-2030* outlining the ACT Government's ambitions for increasing the number of ZLEVs in the ACT.

The challenges that EVs present are numerous, however with strong consultation with industry and consumers, policymakers can develop the required frameworks to work toward achieving the targets as set in the strategy paper.

The strategy paper does acknowledge the difficulties that the Territory will face in relation to increasing the number of EVs over the next few years to the target date of 2030, being the size of the market and the availability of vehicle types that match consumer demand.

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[5] VFACTS January 2023: Ford Ranger tops new-car sales, Tesla Model 3 third - Drive

[6] https://www.carexpert.com.au/car-news/vfacts-australias-new-car-sales-results-for-2022

It needs to be acknowledged that not only are the variety of vehicles that motoring consumers want – SUVs, dual cab utilities – are limited at the moment but also that right-hand drive vehicle only comprise approximately 10 per cent of the global market.

As a net importer of vehicles, Australia is at the mercy of manufacturers' market drivers, mainly building models and drive sides that meet the largest markets first which will be left-hand drive markets before right-hand drive markets are serviced.

New models have been announced to come to market in Australia, however, the issue for EV drivers will be the timing of when those vehicles arrive on shore.

These market drivers are issues that policymakers need to consider when looking at any targets for the number of EVs that will be sold in a jurisdiction in what is a relatively short period of time.

The Terms of Reference for this inquiry pose very valid questions for decision-makers including skills development, infrastructure, planning, and barriers to uptake of ZLEVs in the ACT.

Terms of reference

- Skills development needs to support an expanding EV uptake
- Industry development opportunities
- Planning laws and regulations and education and promotions in relation to charging infrastructure requirements in a variety of residential, public and commercial configurations and precincts
- ACT Government's role in providing charging infrastructure
- Regional charging infrastructure and whether this is a barrier to local uptake, end of life battery disposal, and impact of EVs on ACT power supply requirements and vehicle to grid issues
- Application of Territory taxes and charges for EV purchases including registration charges
- Federal taxes and charges for EV purchases, including import taxes.
- Other Federal barriers to EV uptake, cost, and availability of EVs, including fuel efficiency standards, the impact of EV uptake on existing motor and service industry sectors including possible transition assistance, equity, and just transition issues for people on lower incomes.

Submission.

Skills development needs to support an expanding EV uptake.

While big businesses and international automotive dealers have the flexibility of scale to adapt and adopt rapidly to changing technologies including ZLEVs, small businesses do not have the same flexibility.

In the automotive industry, over 97 per cent of businesses are small businesses servicing the after-market sector.

As the ACT Government notes in it submission to this inquiry, “Training and workforce development is needed in the automotive…trades to respond to a growing EV market.”

MTA NSW disagrees with the ACT Government’s assertion in its submission that electrical trades are in some way relevant to the automotive sector in servicing, repairing, or maintaining electric vehicles.

However, MTA NSW does agree that upskilling the existing workforce needs to be a focus for the uptake of electric vehicles.

EV batteries can have a voltage range upwards of 60V and can typically operate between 400 and 800V DC, far higher than the standard voltages in standard vehicles. This makes working EVs more dangerous due to the risk of electrocution.

It is imperative that the current workforce in the ACT has access to safety training in depowering and re-energizing EV batteries so that workers in the automotive industry can safely repair, service, and dismantle EVs. This training should not be isolated to this section of the supply chain but include, as the Government notes, other sections of the industry including tow truck drivers.

For consumers to have confidence that the electric vehicle they purchase can be serviced and maintained means having a workforce that is fully trained to undertake this work.

Registered Training Organisations (RTOs) are best placed to undertake this training due to their flexible training delivery methods.

For small businesses to undertake safety training will come at a cost which, given the size of the business, could be cost inhibitive for a small business which may lead to the business not undertaking the necessary training.

The industry is investing in training programs for small businesses. MTA NSW has invested heavily in training packages and equipment to upskill the industry, however, Governments do need to consider how they can assist small businesses to upskill their workforces.

Planning laws and regulations and education and promotions in relation to charging infrastructure requirements in a variety of residential, public, and commercial configurations and precincts

The ACT, like jurisdictions around Australia, will face issues within its planning laws and regulations to roll out charging infrastructure.

One of the barriers to the roll-out of charging infrastructure will be the retrofitting of residential, commercial, and industrial assets.

While the National Construction Code (NCC) has now been amended to ensure that all new apartment complexes must have the capacity to install charging stations within the building, this does not cover current residential building stock.

This is an issue that the ACT Government, like other jurisdictions, will need to grapple with so that charging ports can be installed in the current residential apartment stock.

While the ACT Government's initiative to award cash grants to strata owners to upgrade the wiring within a building is noted the reality is that it will not cover the costs of major strata buildings in rewiring to meet charging needs.

Many motorists looking to purchase an electric vehicle wish to charge their vehicle at home. While charging for detached housing can be done (in most cases), charging within strata buildings is a far more complex issue.

This issue is not simply confined to Australia. European countries including Norway, Sweden, Germany, and the United Kingdom are all facing the same issue.

Retrofitting apartment buildings to meet new demands for electric vehicles in cities like Oslo where up to 50% of vehicles are electric having electric charging stations within apartment buildings continues to be a barrier to electric vehicle sales.

While private residential strata units grapple with enhancing the internal infrastructure to install charging ports within common areas, governments need to ensure that social and community housing stock is not left out of the equation.

Transitioning to EVs must include all sectors of society and if the aim of the rollout of electric vehicles is to reduce the carbon footprint then all sectors of society need to be brought along on the journey.

Planning now for how lower socio-economic communities can have access to EV charging that is affordable will be crucial to the ACT Government's plan to reach its targeted EV uptake and reduce the Territory's carbon emissions.

Not having the planning instruments or the policy levers in place now will only marginlise those who cannot afford the upfront costs of either new EVs or used EVs, which for a period of time still be more expensive than used ICE vehicles.

The ACT Government will need to examine its current planning requirements to ensure that changes can be made for future infrastructure and consumer demands.

ACT Government's role in providing charging infrastructure

Government is critical in providing the infrastructure for electric vehicle charging. Government is also critical in providing hydrogen refueling centres now for when hydrogen-fuelled vehicles come to market.

Hydrogen technology is advancing quickly overseas, and hydrogen vehicles will be coming to market quicker than many anticipate.

It is encouraging that the ACT Government has invested in hydrogen vehicles to evaluate their effectiveness, however, MTA NSW recommends that the ACT Government examines

how to implement hydrogen infrastructure now rather than in several years' time as delays in providing infrastructure can be costly.

While the ACT Government is the crucial player in developing charging infrastructure it must also be cognisant that the market will need to take charge of infrastructure upgrades.

Overseas jurisdictions are already upgrading their charging stations. Phase one charging stations are being upgraded to second and even third generations of chargers which are faster and more efficient.

The government should provide the infrastructure so that the market can react, develop, and innovate.

Governments do not have the capacity to keep up to date with new advances in technology, nor provide the consistent capital outlay to meet increasing consumer demand, so while the government is critical to the outlay for the initial infrastructure it must allow the market to take the reins and advance the services for the motoring consumer.

Regional charging infrastructure and whether this is a barrier to local uptake, end of life battery disposal, and impact of EVs on ACT power supply requirements and vehicle to grid issues

Regional charging.

The issue of regional charging networks within NSW will be an issue that could be a barrier for certain EVs to be taken up within the Territory.

While major regional centres such as Yass and Goulburn will be serviced by EV charging networks as part of both the NSW State Government and Federal Government's strategy to ensure that Federal and State highways are provided with charging stations, this only provides for those road networks to be serviced.

Australian roads fall into three categories:

- Federal
- States
- Local Government.

In regional NSW local government roads can be kilometers long, stretching from one town to another. For instance, Queanbeyan Pelarang Council is responsible for approximately 1600 km of roads with the majority being sealed roads.

There are several questions for policymakers and governments when contemplating charging station rollouts within local government areas:

- Where does the funding for EV charging on local government roads come from?
- Who is responsible for the maintenance of public EV charging stations in local government areas?
- Will there need to be blanket changes to LEPs for all local councils or will local councils continue to have oversight of their LEPs for EV charging?

- What would be the result of councils not providing the necessary infrastructure for EV charging?

In the debate on increasing the nation's EV fleet, there appears to be little conversation on how local governments, especially regional councils, will fund and maintain public charging stations, and how local governments in regional areas will deal with changes to planning under their jurisdictions.

For the ACT this is particularly important being the largest city centre south of Sydney and being the major city centre for several smaller cities and large towns between the Southern Highlands and the Victorian border, as such the ACT has a voice in encouraging and advocating for local councils in the region to adapt to increasing use of electric and hydrogen-fuelled vehicles.

End-of-life battery disposal.

One of the advantages of electric vehicle batteries is their ability to be reused to power homes.

As the Electric Vehicle Council notes[7], once an electric vehicle battery's power output falls to approximately 70 per cent it can be modified to assist in providing energy to residential dwellings.

However, while this may be an effective use for some batteries the overall conversation is in the disposal of an electric vehicle battery overall.

Australia is unique in the disposal of end-of-life vehicles in that Australia is the only OECD nation not to have a national, or even state, policy in the disposal of vehicles at the end of their life.

Australia has, currently, over 700 000 end-of-life vehicles and no effective policy to deal with them.

Dealing with a vehicle at the end of its life needs not just effective thinking now, but effective policies put into place to deal with electric vehicles.

Without effective and clear policies electric vehicles will be assigned to scrap yards with no process to recycle their components.

With direct reference to batteries developing strong and clear policies for the removal, storage, and disposal of batteries are policy issues that need to be dealt with immediately if the government wishes to develop an effective electric vehicle market.

Industry can assist the Government in formulating policy processes that deal with these issues as the industry will be the sector that will be the first point of contact for consumers.\

Application of Territory taxes and charges for EV purchases including registration charges

The ACT government, like many governments across the country, is applying the limited tax and charges available to it to encourage the uptake of electric vehicles, however, the larger

[7] Electric Vehicle Council of Australia

question for the Territory government, like governments in Australia and Europe, is – for how long can subsidies and cost reductions continue?

The European experience is that subsidies are required for the uptake of electric vehicles, whether this is direct cash subsidies or reductions of taxes and charges, or a combination of both, the need for government intervention is needed to ensure EV uptake.

Norway has been providing subsidies and tax incentives for electric vehicle uptake since the early 1990s, however, while Norway's uptake of electric vehicles is high compared to other countries it has not reached its ultimate aim of 90 percent electric vehicle uptake and is now in the process of winding back its government-funded subsidies.

Sweden has used subsidies and penalties to encourage EV uptake, however, this has cost the Swedish government political capital, especially in agricultural regions.

The ACT government's interest-free loan initiative appears to be successful but the ACT Government needs to examine its longevity and its response to Canberrans who may miss the opportunity to use this mechanism

Federal taxes and charges for EV purchases, including import taxes.

Federal taxation continues to be a barrier for zero and low-emission vehicles.

While moves have been made to remove the Fringe Benefits Tax (FBT) for fleet vehicles and the removal of import duties for EVs there are significant barriers resting with the Commonwealth that, if removed, could see more electric vehicles come to market.

Luxury Car Tax.

The Luxury Car Tax (LCT) was introduced in 2001 to encourage Australian consumers to purchase locally manufactured vehicles instead of imported prestige vehicles. However, since the end of passenger vehicle manufacturing in Australia in October 2017, the rationale for this tax has become redundant.

Regrettably, the LCT is also contributing to poorer environmental outcomes. Zero and low-emission vehicles (ZLEVs) are considerably more expensive than equivalent-sized petrol and diesel vehicles, with many ZLEV's exceeding the LCT threshold for fuel-efficient vehicles (currently $84 916). Australian consumers have a strong preference for light commercial vehicles and sports utility vehicles, which account for around 77 per cent of new vehicle purchases. However, in the fuel-efficient vehicle category, new electric vehicle offerings such as the LDV eT60 and the Ford F150 Lightning utility will arrive in 2023 with pricing of $93 990 and $100 000 respectively, plus on-road costs. This places them well above the current LCT threshold and distorts the market by penalising buyers of ZLEVs, thus contributing to lower sales of ZLEVs and poorer environmental outcomes.

Accelerated Depreciation of fleet vehicles

Modeling conducted by MTAA members shows that, based on current trends and policy measures, the Federal Government's projection of 89 per cent electric vehicle uptake by 2030, is unlikely to be met, with a 25 per cent uptake being more realistic. A shortfall of this magnitude will seriously jeopardise Australia's legislated emission reduction targets of 43 per cent by 2030 and net zero by 2050 unless further policy measures are undertaken to support the uptake of zero and low-emission vehicles.

An additional measure that will assist towards this cause, is an allowance for accelerated depreciation on zero and low-emission vehicle fleet purchases, with a special provision for accelerated depreciation on plug-in-hybrid and hybrid vehicles purchased by primary producers with an annual turnover of up to ten million dollars.

Other Federal barriers to EV uptake, cost, and availability of EVs, including fuel efficiency standards, the impact of EV uptake on existing motor and service industry sectors including possible transition assistance, equity, and just transition issues for people on lower incomes.

While the Federal government has made some inroads into the barriers to the uptake of electric vehicles including the recent legislation on Fringe Benefits Tax, there remain several areas where the Federal Government needs to focus its attention to increase vehicle uptake. Additionally, there are areas within the supply chain that the Federal Government also needs to turn its attention to so that the transition to electric vehicles does not inadvertantly cause distress to consumers and businesses.

Transition of the workforce

There can be no hiding the fact that the transition to a Zero and Low Emission Vehicle future will not result in the consolidation of some parts of the industry.

In Europe, the anticipated contraction in the automotive industry is around 30 per cent. This will occur over a long period of time as ICE vehicles are removed from production and phased out of national fleets, however, regardless of the timeline Governments need to focus their attention on how the industry will navigate this consolidation and what mechanisms will need to be put in place for this change.

Taxation.

As noted above, taxes and levies on vehicles are a continued barrier to the uptake of electric vehicles.

As MTA has outlined the removal of old and outdated taxes such as the LCT is critical to reducing the cost of all vehicles and through that increasing the number of vehicles on Australian roads.

Recommendations

- That the ACT Government works with industry and businesses to deliver on-the-job training programs to uplift the skills of the current workforce.
- The ACT Government engages with the industry to develop a long-term structured training program to increase the number of skilled professionals entering the sector.
- The ACT government works with the industry to structure financial assistance for small businesses to access on-the-job training.
- The ACT Government and industry develop a roundtable to examine the future mobility issues for Canberra including the infrastructure for hydrogen vehicles.

- The creation of an automotive small business roundtable to determine how the automotive industry will adapt to changes brought about by Government policy.
- The ACT Government commences work on developing policies on EV battery recycling, storage, and management, including the creation of regulations on the storage, removal, and transportation of batteries.
- The ACT Government commences work with industry to develop a holistic end-of-vehicle life policy.
- That Government starts conversations with the property sector on how to deliver apartment charging infrastructure in the current apartment stock and charging infrastructure for social and affordable housing.
- The ACT Govenrment work with the Federal Government to remove taxation barriers for electric vehicles.

Case study.

Introduction.

In September 2022, the Motor Traders' Association of Australia (MTAA) sent a delegation of State Association CEOs from NSW, South Australia, Queensland, Victorian, and Western Australia on a study tour to Europe to understand that changing landscape that zero and low-emission vehicles (ZLEVs) are likely to bring to the automotive industry in Australia.

The delegation visited automotive industry associations, individual repair shops, dealerships, manufacturers, and policymakers across Norway, Sweden, the Netherlands, Germany, and the United Kingdom.

The observations and findings from this study tour were produced in an MTAA report – Zero and low-emission vehicles: Insights from Europe.

The case study below is one section from this report:

Learnings and observations

NORWAY

Norway is the world leader in the transition to EVs. This is the result of long-term government intervention. In 2021 64.5 per cent of new passenger vehicle sales were EV and 15 per cent of the entire fleet are EVs (in Oslo it is 50 per cent)

Hybrid sales have plateaued, and plug-in hybrids are likely to do the same. It was suggested that within three years the only cars being sold in Norway will be pure EVs

Policy

This strong EV market share has been achieved through a series of legislated measures since 1990 to reduce the cost of EVs, including:

- *Lower road taxes*
- *Removal of import tax and VAT (25 per cent)*
- *50 per cent reduction in company car tax*
- *Free parking, exemptions for road tolls*
- *A strong incentive scheme.*

Some concerns are now emerging, however, as the government begins rolling back the level of incentives.

Higher tolls and vehicle registration fees have been used to penalise drivers who maintain the use of their ICE vehicles.

Given the current pricing for electricity due to global energy price increases, the cost-benefit of an EV is being challenged. Put simply, evidence is emerging that charging vehicles via public charging stations is not considered economical and the priority is to charge at home through renewable energy sources.

Infrastructure
While there is public charging infrastructure, the majority of charging takes place in the home.

While public infrastructure was rolled out early in the transition plan, much of it was low-capacity units that have proven to be ineffective. It was strongly recommended that all public charging stations need to be rapid6 charging units. Dedicated charging stations for taxis is widespread.
EV range anxiety has now been replaced with queue anxiety as large queues are common at public charging stations.

Charging infrastructure (including the charge speed) is emerging as a particular concern at holiday destinations during holiday periods that are swamped during peak travel periods.

Maintenance
Some industry personnel anticipates that around 30 per cent of dealerships and independent workshops will disappear as a result of the transition to EVs.

The growth in EVs is having a material impact on businesses servicing and repairing EVs.

These impacts can be summarised as follows:

- *EVs do not require the same level of servicing as ICE vehicles*
- *As a result, dealerships are increasingly re-introducing the sale of tyres, windscreens, and body repairs*
- *Independent repairers are also looking for alternate offerings to adapt.*
- *Dealers are implementing strategies to 'keep' customers who purchase used cars through service offerings, including subscription models.*
- *Brakes and tyres on EVs require more checking and replacing.*
- *Software updates are time-consuming and require considerable space within the business to hold cars while being updated.*
- *Panel and paint shops are well placed to have continued repair work due to the increased frequency of accidents in EVs.*

Skills
Accessing skilled labour is particularly challenging given Norway's low employment rate of around 1.6 per cent. Attracting and retaining new and skilled technical repair staff has been a key objective of the industry. However, there were no signs this would be fixed in the short term.

Training for apprentices is similar to Germany with an individual beginning their first two years of technical training at high school and then two years of training in a workshop. It has been identified that more needs to be done in schools to encourage young people into automotive trades.

Technicians must be trained to a specified standard in high-voltage vehicle maintenance and repair processes.