Submission to Standing Committee on Planning, Transport and City Services, ACT Legislative Assembly: Inquiry into Electric Vehicle Adoption in the ACT

AUGUST 2022

The Conservation Council ACT Region is the peak non-government environment organisation for the Canberra region. Since 1981, we have spoken up for a healthy environment and a sustainable future for our region. We harness the collective energy, expertise and experience of our more than 40 member groups to promote sound policy and action on the environment.

We campaign for a safe climate, to protect biodiversity in our urban and natural areas, to protect and enhance our waterways, reduce waste, and promote sustainable transport and planning for our city. Working in the ACT and region to influence governments and build widespread support within the community and business, we put forward evidence-based solutions and innovative ideas for how we can live sustainably.

At a time when we need to reimagine a better future, we understand that the changes we need will only happen with the collective support of our community.

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Introduction

The Conservation Council welcomes the opportunity to provide input into the Legislative Assembly's Standing Committee on Planning, Transport and City Services Inquiry Electric Vehicle adoption, including the barriers to electric vehicle uptake in the ACT, and potential solutions to encourage uptake.

Our response is framed around the eight Terms of Reference of the Inquiry. In our response we have relied in part on advice from one of our member groups, the ACT Branch of the Australian Electric Vehicle Association (AEVA ACT).

We note that the ACT Government has recently foreshadowed a number of actions that are relevant to this Inquiry in the ACT's *Zero Emissions Vehicles Strategy 2022-30*, released in July 2022.

The challenge

63.5% of the ACT's direct greenhouse emissions come from transport.[1] A large percentage of those are as a result of private vehicle use, generated primarily by the design of our city and our transport habits which emphasise cars above other forms of transport. As such, decarbonising the ACT's car fleet is an important part of meeting emissions targets going forward. The ACT's next interim target is to reach a 50 to 60% emissions reduction by 2025, and net zero emissions by 2045.

The Council acknowledges that decarbonising private vehicle use will be an important part of emissions reductions globally, nationally and locally. However, it is important to note that the ACT should not be aiming for a car-for-car switch from internal combustion engine (ICE) vehicles to zero emissions vehicles in order to meet this challenge. A range of other transport options should be facilitated and supported by the Government to drive benefits in urban livability, health and wellbeing, and accessibility and inclusivity. Public transport and active travel, as well as transport-on-demand services, must all form part of the transport smorgasbord going forward, and public funding should be prioritised to deliver these solutions. In a growing and densifying city, our current level of private vehicle ownership and use is not sustainable. In addition, the massive consumption of resources that will necessarily flow through the transition to zero emissions vehicles creates an opportunity to reimagine the transition as an opportunity to deliver transport solutions, rather than just "new cars". Moving away from ICE vehicles is crucial to cutting emissions, as is ensuring that we have a good public transport network, and our bike and foot path networks for active travel are extensive and maintained.

The quantum of greenhouse emissions from ICE vehicles is related to distances travelled, which is why we favour a broad range of measures to reduce the usage of ICE vehicles. These measures include:

- substitution of car journeys by "active travel" (walking, cycling, e-bike journeys);
- substitution of car journeys by public transport; and
- reducing the number of car journeys through shared car use.

However, there will be many types of journey in the ACT where the use of a private motor vehicle is the preferred option, and even with increases in active travel and public transport options, this is likely to remain so over the next decade, given the nature of employment and leisure activities, and the way our city has been planned. For this reason we favour the strongest possible measures to accelerate the uptake of zero emission vehicles.

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[1] https://www.climatechoices.act.gov.au/__data/assets/pdf_file/0003/1918038/ACT-Greenhouse-Gas-Emissions-Inventory-Report-2020-21.pdf

The number of ICE vehicles registered in the ACT is continuing to grow. Such cars are still being advertised and sold across Australia. Of the 320,000 vehicles registered in the ACT, just over 2200 are battery EVs[2], and a further 700 are plug-in hybrids.

If the ACT is to meet its target of Net Zero Emissions by 2045 (let alone act consistently with limiting global warming to 2 degrees) this trend must be arrested urgently, and the ACT's community vehicle fleet must be transformed into (with a few minor exceptions) an all-electric fleet. It is not only a matter of reaching Net Zero Emissions by a certain date: to ensure a safe climate, it is the "area under the curve" (the emissions reduction curve) that matters. The more that we can reduce transport emissions in the current decade, the better the climate outcome.

A Zero Emission Vehicle Strategy is a useful policy framework for the ACT to have in place, and in heralding a phase out of ICE vehicles from 2035, the ACT has started a conversation about EVs that hasn't yet occurred nationally. Hopefully this announcement will encourage other jurisdictions and the Federal Government to put in place policies that will drive EV uptake and ensure the appropriate infrastructure is available.

We recognise the huge challenge that will be involved in transforming a community car fleet of 320,000 vehicles. However, in 2019 the Government members of the Legislative Assembly voted to declare a Climate Emergency, acknowledging the need for urgent action across all areas of government. And the ACT Government has joined the Under2 Coalition[3], thus committing to keep global temperature rise well below 2 degrees and to make efforts to achieve 1.5 degrees. The ACT's current emission reduction targets are not consistent with these goals, and inevitably, nor are their electric vehicle targets. However, it's time to get started and expedite the transition away from carbon-polluting vehicles.

Barriers to electric vehicle uptake

There are four key barriers to the uptake of electric vehicles (EVs):

- inadequate supply, partly due to supply-chain bottlenecks and partly due to the preference of car makers to deliver EVs to markets which have fuel efficiency standards;
- high purchase prices compared to ICE vehicles, coupled with low availability of used EVs;
- the absence of "home charging" options for many apartment dwellers; and
- a perception (and in some cases, the reality) of inadequate charging infrastructure for interstate journeys.

The ACT Government should have the ability to address or influence all of the above apart from the first. The Federal Government can influence all of the barriers, and if it moves to implement fuel efficiency standards it can improve the supply of EVs to Australia as well as preventing Australians from becoming a future dumping ground for high emission vehicles.

[2] https://www.aeva.asn.au/act-ev-statistics/
[3] https://www.theclimategroup.org/under2-coalition

Responding to the Inquiry's Terms of Reference

a. Skills development needs to support an expanding EV uptake

Although electric vehicles (EVs) require only modest maintenance, there are nevertheless needs to:

- undertake routine maintenance of "grey import" vehicles that have not been purchased from local dealers;
- replace batteries in vehicles (such as early model Nissan Leafs and Mitsubishi i-MiEVs) that need longer ranges; and
- assist ACT residents to convert petrol or diesel vehicles to electric.

The ACT Government should ensure that there are no barriers to the uptake of qualifications for EV training, and that there are enough options available for trades people to upgrade or reskill as required. Incentives for training could be provided in the early years of the transition, to ensure that a lack of mechanical support does not become a barrier for consumer uptake.

b. Industry development opportunities

There are opportunities for expanded small business activity in the ACT to:

- undertake the types of maintenance activities set out above; and
- design, install and maintain EV charging facilities for homes, car parks and apartment blocks; and
- maintain public charging infrastructure, to respond rapidly to any reported outages.

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

In regard to charging EVs, advice from AEVA ACT indicates that:

- EV drivers often just require a partial top up and rarely need to do an "empty to full" charge;
- residential charging rarely needs to be fast; and
- concerns about increasing demand on the grid can be addressed by existing measures (such as demand charges applying between 5pm and 8pm) to discourage charging during the evening peak.

AEVA ACT has also set out the requirements of EV drivers[4] for public charging infrastructure in the ACT. These requirements should be considered by the Inquiry when giving consideration to reducing barriers.

Within Canberra, slower AC charging at locations such as 'Park and Ride' car parks and shopping centre car parks could be extended. The ACT Government could tender for the installation and management of EV charging at such long stay car parks.

One of the long-standing barriers to EV uptake is the absence of "home charging" options for many apartment dwellers. For this reason we support the actions in the *Zero Emissions Vehicles Strategy, 2022-30,* to:

- enact regulation in the Territory Plan to require EV charging infrastructure for new multi-unit residential buildings;

[4] https://www.aeva.asn.au/files/1268/

- provide information to unit titles and apartment building owners about EV charger installation in apartment buildings; and
- introduce $2000 incentives for installation of EV charging at multi-unit buildings.

It is now four years since the first of these actions was foreshadowed by the ACT Government, and as such it is recommended that the ACT Government addresses this matter with greater urgency. In particular, it is concerning that the requirement for new multi-unit developments to require EV charging infrastructure may not be legislated until the updated Territory Plan is approved in 2023. The Council would support earlier action on this Draft Variation to the Territory Plan - leaving this provision until 2023 will ensure that thousands of residents of new buildings may be required to retrofit charging facilities over the next decade.

It is possible that developers and apartment building owners are over-estimating the difficulties involved in such measures. We note the strong advice from AEVA ACT that:

- charging does not need to be fast where cars are parked all day or night;
- charging can be set up to avoid adding to a building's peak demand;
- load management equipment can slow or pause charging at times of high demand;
- when many cars are plugged in, the available capacity for charging can be shared; and
- when fewer cars are charging, charging rates for each vehicle can be increased automatically by the load management system.

In relation to existing apartment buildings, we also note financial support is likely to be required for Owners Corporations to enable charging infrastructure to be retrofitted by individual owners.

d. ACT Government's role in providing charging infrastructure

The ACT Government's initiative to deliver more than 70 public charging stations in the ACT in 2022-23 is welcomed, as are plans to expand this to at least 180 by 2025.

AEVA ACT has identified that there are significant concerns about outages of public chargers, and about the time taken to address outrages when they occur. Their recommendation that Government assistance (be that financial or otherwise) for charging infrastructure should be linked to reliability guarantees is supported.

e. 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

One of the barriers to EV uptake is "a perception (and in some cases, a reality) of inadequate highway charging infrastructure". Some EV owners are two-car families and utilise their EV only for local travel around Canberra. But as EVs become the primary or only motor vehicle for an increasing number of people, confidence that charging will be available at regular intervals along major intercity routes will become increasingly important. Already this would be the case for many EV users.

As such, the action in the *Zero Emissions Vehicles Strategy 2022-30,* to "continue cross-jurisdictional engagement to make EV chargers available on common interstate, long distance transit routes" is supported.

Currently adequate charging facilities exist on the Hume Highway for journeys to Sydney and Melbourne, but as the number of EVs on the road increases, facilities will be expanded.

However, the installation of charging facilities on the Kings Highway, at locations such as Braidwood would support increased use of EVs for regional coastal journeys.

Over the next decade, Federal and state / territory governments will have an important role in ensuring the rollout of public charging infrastructure is well coordinated across locations and the services offered by companies.

ACT power supply requirements

AEVA points out that "electric cars are a nearly ideal discretionary load" on the electricity grid, with relatively slow AC charging at home that can be paused to avoid the evening peak.

Since there is ample transmission and generation capacity outside peak hours, there should not be significant problems from the uptake of EVs provided that EV owners avoid peak times. It should be possible to achieve this through suitable tariff structures and through public education.

There is also the opportunity for EV charging to "'soak up excess solar generation" during daylight hours through home charging by retirees (and by people working from home) and slow AC charging across Park and Ride car parks and workplaces.

Vehicle-to-Grid issues

Before "Vehicle-to-Grid" becomes common, the simpler "Vehicle-to-Home" capability is likely to provide homes with backup power or the option to disconnect from the grid at times of high prices. Some current models (such as the Ioniq 5) already provide "Vehicle-to-Load" in the form of a simple three pin mains socket.

There is a significant potential for "Vehicle-to-Home" capability to change the "value equation" for people purchasing an EV. If the interconnection and power management issues are resolved, people purchasing an EV will obtain much more than just a car.

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

In structuring the vehicle taxes and charges imposed by Governments, the most important goal should be to change consumer behaviour, and put in place incentives to switch to zero emission vehicles and disincentives to retain ICE vehicles. However, this needs to be done with an eye to whether the incentives are necessary to cut emissions. There should be a consideration of who is eligible for incentives and for what type of vehicles.

Incentives that support EVs should be time-bound to drive early adoption, as this can also drive a change in community conversations, and can build acceptance and familiarity with new technologies, until at least the market is established and prices start falling. Incentives should avoid offering overly generous public money subsidies once EVs are within reach of the majority of the population, and should be means-tested to ensure public funds are not being directed to high income households.

The ACT Government has introduced incentives in the form of:

- two years free registration for zero emission vehicles
- stamp duty exemption for new zero emission vehicles
- zero-interest loans of up to $15,000 for zero emissions vehicles and charging equipment.

In addition, consideration should also be given to:

- the planned expansion of the stamp duty exemption for used EVs

- incentives to encourage the uptake of electric bikes and motorbikes.

The latter measures are important on two fronts - firstly to provide transport options that are lower cost for people who may not be able to afford an EV, and secondly to encourage an effective alternative to a family car that can be used for routine trips such as commutes. Incentives for e-bikes would also help support the uptake of active travel options - something that is consistent with ACT Government travel policy, and which improves health outcomes, reduces road space, and improves urban liveability. E-bikes can also be switched in a 'second family car" for regular commuting.

Incentives should apply to the purchase of a reasonable range of practical vehicles, but should not apply to the purchase of what are clearly "luxury vehicles".

The ACT Government has also foreshadowed "discouragement" in the form of:

- the phase-out of light ICE vehicles from 2035; and
- "registration reform" which would consider emissions-based registration fees.

The *Zero Emissions Vehicles Strategy 2022-30* is somewhat vague and ambiguous about when and how these measures will be implemented. While a ban on the sale of new ICE vehicles was mooted in the media, this isn't clearly identified in the strategy, nor was there a specific commitment to emissions-linked registration, only a commitment to consider emissions should the registration system be reviewed. The ACT Government should commit to an implementation plan for these policy directions.

The mooted ban on ICE new vehicles sales in 2035 send a positive signal to the community and other governments about the direction that is needed. However it's worth noting that there are a number of jurisdictions overseas that have already made announcements to ban the sales of new ICE vehicles, including the United Kingdom, which has announced that such a ban will apply from 2030. Commitments from global vehicle manufacturers also indicate that availability of new ICE vehicles will be significantly reduced by 2035. Thus, the announcement by the ACT Government should not be seen as especially ambitious as by 2035, electric vehicles will be commonplace. It is, however, a useful signal that the ACT will have a marketplace for EVs, a signal that needs to be sent by other state and territory governments in Australia.

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

We welcome the recent actions by the Federal Government to:

- exempt EVs from the Fringe Benefits Tax if they are also exempt from the Luxury Car Tax;
- exempt EVs from import tariffs where these apply; and
- restructure the Luxury Car Tax to exempt more fuel-efficient vehicles from the tax.

We welcome the statement by the Federal Minister for Climate Change and Energy at the recent National EV Summit that work on a National EV Strategy will commence in September 2022 with the release of a discussion paper.

We also note that at the same event the ACT Chief Minister acknowledged the need for a broadly uniform approach by state and territories to EV tax and incentive policies, and foreshadowed an approach to other state and territory treasurers on this matter as part of the development of the National EV Strategy.

h. Other Federal barriers to EV uptake, cost and availability of EVs, including fuel efficiency standards, 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

Fuel Efficiency Standards

The Federal Government should introduce a national fuel efficiency standard before 2026 to encourage the supply of more EV models to Australia, and ensure that more general supply problems are no worse for Australia than for other countries.

Currently there is a substantial disincentive for carmakers to sell EVs in Australia because they sacrifice significant credits (up to $18,000 per vehicle) that they would receive by selling into countries with fuel efficiency standards. The previous Federal Government abandoned attempts to introduce a fuel efficiency standard in 2017 without any explanation after criticism in some media outlets, and as a result Australia has thus lost five years of the benefit that could have flowed from this policy.

To ensure that car makers have no disincentive to provide a wide range of EV models to Australia, any fuel efficiency standard should be broadly in line with the standard that applies in Europe, and should have a mechanism to allow further tightening.

The recent announcement by the Federal Minister for Climate Change and Energy that fuel efficiency standards will be considered by the Federal Government as part of the development of its National EV Strategy is welcomed.

Motor service industry

An accelerated uptake of EVs should have a gradual impact on the existing automotive service industries and there will be a legacy fleet of internal combustion vehicles. In addition, EVs still require replacement tyres, wheel alignments, fitting of accessories, and repairs to steering, suspension and braking systems.

In addition, as was noted above, there may be a need for new tasks such as maintenance of “grey import” vehicles, replacement of batteries in older models, and vehicle conversion projects.

Equity and transition for low incomes

Transitioning to new technologies that are part of the decarbonisation journey will continue to raise challenges in terms of delivering a swift, but equitable transition, in particular for people who are on low incomes and/or do not have access to capital.

The upfront cost of EVs is challenging even to those on moderate income levels; however, prices will reduce as the market shifts. As this happens, more second-hand vehicles will enter the market, allowing a greater uptake by those on lower incomes. Currently, most used EVs cost more than $20,000 to purchase, meaning that people on low incomes will struggle to justify this upfront expense.

If they cannot afford an EV they will face the ongoing costs of maintaining older vehicles and continuing to use fossil fuels, which may become increasingly expensive and harder to access as the market shifts. The cost of accessing mechanic services may also increase as maintenance skills shift in response to the expansion of EV vehicle use. The costs and the impacts of the transition will, like many climate-related technology transitions, affect most

heavily those who are the least able to afford it, and who are the least equipped to manage the impacts.

In order to introduce more EVs into the used car market and enable people on lower incomes to purchase EVs, the ACT Government could consider using shorter lease periods for EVs in the ACT government fleet.

Also, since a high proportion of the Commonwealth car fleet is registered in the ACT, the ACT Government could ask the Commonwealth to maximise the acquisition of EVs for its ACT-based fleet.

Currently the Australian import rules prevent the import of used vehicles that have been on sale in Australia in the recent past. For example, it is not permitted to import a used 2018 Hyundai Ioniq from the UK. This makes no sense, if the objective is to provide the community with moderately priced EVs. This is an area where the Federal Government could take useful action.

The ACT Government can support this transition for people on low incomes and with low access to capital by providing assistance though targeted means-tested programs.

i. Any other matter relevant to this issue

Car ownership vs "Cars as a Service"

People can make use of cars without owning them, and do this frequently by using taxi and Uber services. Currently car ownership is the dominant model, and under it most cars are idle for the great majority of each day, with significant implications for land use and the environment.

There is evidence[5] that all the car journeys made by Canberrans could be undertaken with markedly fewer cars than are currently registered in the ACT. In the medium to longer term, such journeys could be supported by fleets of electric "robotaxis", and we note that such services are already available in parts of Phoenix and San Francisco (operated by Waymo LLC) and in Shenzen, China (operated by AutoX). Our view is that the era of operational robotaxis is more likely to arrive in the 2030s than the 2020s. We are fully aware of the barriers to this development, in terms of community acceptance, assurance of safety, and development of regulations. But the potential impact of such services on the number of cars on the road, and therefore on land use and the environment, is such that the development of this technology should be closely monitored by the ACT Government.

We also understand that vehicle ownership will continue to make practical sense for many people (such as tradespeople) and that others will prefer the ownership model even if it costs them more.

There are more modest and more immediate approaches to promoting car sharing and reducing car ownership, including by people in co-housing communities. The ACT Government should undertake work to investigate car sharing models, how and why they succeed, and how the government can support their successful implementation, and what a transport-as-a-service model could look like in the ACT. While the market may eventually step in in this regard, The ACT Government could provide support for early adoption of such a service that is built around a zero emissions car fleet.

[5] http://canberraautonomouscars.info/

Conclusions

If the ACT is to act consistently with limiting global warming to less than 2 degrees, it must take urgent steps to reduce transport emissions by:

- accelerating the uptake of EVs to replace ICE vehicles
- encouraging the substitution of car journeys by “active travel” journeys;;
- encouraging the substitution of car journeys by public transport; and
- reducing the number of car journeys through shared car use.

We favour the strongest possible measures to accelerate the uptake of zero emission vehicles.

We recognise the huge challenge that will be involved in transforming a community car fleet of 320,000 vehicles. But the Government has already acknowledged the need for urgent action to keep global temperature rise well below 2 degrees and to make efforts to achieve 1.5 degrees.

Recommendations

1. That the ACT Government ensures that there are no barriers to the uptake of qualifications for EV training, and that there are enough options available for trades people to upgrade or re skill as required.

2. That the Committee takes note of the recommendations of the ACT Branch of the Australian Electric Vehicle Association concerning the requirements of EV drivers for public charging infrastructure in the ACT.

3. That the ACT Government accelerate its plan to require new multi-unit developments to support EV charging infrastructure.

4. That financial support be provided to Owners Corporations to enable charging infrastructure to be retrofitted in existing apartment buildings.

5. That any ACT Government support for public charging infrastructure should be linked to reliability guarantees (involving availability standards, and speed of response to outages).

6. That the Committee seeks a clearer statement from the ACT Government concerning the non-registration of new ICE vehicles from 2035.

7. That the Committee seeks a clearer statement from the ACT Government concerning the future linkage of registration fees to vehicle emissions.

8. That the ACT Government examine all possible measures to increase the supply of second-hand EVs in the ACT.

9. That the ACT Government investigate and report back on the opportunities to establish a transport as a service model based around zero emission vehicles.