



LEGISLATIVE ASSEMBLY
FOR THE AUSTRALIAN CAPITAL TERRITORY

STANDING COMMITTEE ON PLANNING, TRANSPORT, AND CITY SERVICES
Ms Jo Clay MLA (Chair), Ms Suzanne Orr MLA (Deputy Chair),
Mr Mark Parton MLA

Submission Cover Sheet

Inquiry into electric vehicle (EV) Adoption in the ACT

Submission Number: 54

Date Authorised for Publication: 8 September 2022

Submission to ACT Transport Enquiry

Bede Doherty, Canberra

The following list consists of goals, not designed solutions.

For each goal, there are a variety of approaches available to achieve the respective objectives. These approaches/options are not included in this list.

1 Reliable charging

Note: when referring to "public" below, the meaning includes both slower destination chargers (e.g. 7 kW_{AC} to 22 kW_{AC}) and fast DC chargers (50 kW upwards).

- a. Prevent blocking of EV public charging bays by vehicles which do not have a plug (e.g. ICEs – both cars and motorbikes).
- b. Prevent blocking of public chargers by PHEVs and BEVs which are plugged in but not charging (usually because they are already fully charged).
- c. Prevent/discourage EVs from plugging in when they don't really need to re-charge, so that those drivers who really need access to the charger (e.g. people without the ability to re-charge at home/work, or drivers who are urgently in need of a few kWh to get back to base) have a better probability of getting access to the charger.
- d. Require charger owners/operators (especially those who have received a subsidy) to maintain the chargers in working order a high percentage (TBA) of the time.
- e. Require public charging owners/operators to publicly report on errors within a short period (e.g. 10 minutes) of a fault being observed or reported.
- f. Enable drivers to quickly check whether any public chargers within a driver-defined radius (e.g. 10 km) of the driver's location are faulty, heavily used, or currently used.
- g. Stakeholders should carefully consider both the perception and the impact of a public charger site billing for both charging and parking. (Even if the total cost is still reasonable, the public perception may be that they are being exploited).

2 Reduce risk of queueing for a charger

- a. Incentivise public charging owners/operators to provide a service for some public charging chargers (particularly at sites where there are multiple chargers in a string) so that a driver can be more assured of a small, emergency top-up (say 20km of range, to get back to base) within a few minutes of arriving.
- b. Encourage the deployment of public chargers which can deliver 20km of range to a vehicle in 5 to 10 minutes.
- c. Encourage charger owner/operators to provide a booking service for chargers.
- d. Discourage loitering at a charger (i.e. staying plugged in for longer than necessary e.g. after charged to a level consistent with that charger's policy).

3 Grid optimisation

Smart chargers should be strongly encouraged in order to enable VPP-style grid optimisation programs – either externally managed or user-managed – as well as automated reimbursement management, and price/demand optimisation.

4 Safety

Locate public chargers in safe, welcoming environments – utilising as many as possible (per site) of the wide variety of techniques available to facilitate this.

5 Services

Locate chargers where they are supported by appropriate activities/services, related to the length of stay likely for that power of charger or the rules governing that charger location (e.g. maximum stay 5 minutes).

6 Privacy

Require charger owner/operators to accept debit/credit cards and not insist on network-membership which requires the sharing of personal data.

7 Privacy & Equity

Enable drivers to apply for the SHS interest-free loan themselves, instead of having to rely on dealers to apply on their behalf. (Some suppliers are not participating in this scheme for various reasons. One of them, Tesla, is a dominant supplier and Tesla buyers are thus disadvantaged – in contrast with buyers of other much more expensive brands/EVs who can access the SHS loan through the dealer).

8 Vehicle supply

Incentivise OEMs to provide EV stock into ACT. A variation on the EU methodology might be used, incorporating malus/bonus settings.

9 Public confidence

Create public confidence that common myths are just that: myths. These misunderstandings can be overcome, using a variety of techniques. Myths include:

- a. EV emissions are as bad as ICEs, due to the burning of coal for electricity.
- b. EV batteries will require replacement within a few years.
- c. Battery warranty is synonymous with the expected life of the battery.
- d. EV purchase price is a problem. Purchase price is the incorrect metric to focus on. There are other holistic metrics which are much more effective at convincing buyers to transition.
- e. A small battery (range) is a big problem.
- f. EV re-charge rates are slow:
 - a. Overnight
 - b. At public chargers (if you top up once a week)
 - c. At public chargers (if you need to go from 10% to 80% or more)
- g. It is not possible for an EV to do common weekend vacation trips (mountains/sea) or inter-state trips.
- h. EVs can't tow.
- i. Utes, vans, trucks and large SUVs are not likely to be available for years.
- j. Batteries cannot be recycled.
- k. Batteries will not be recycled.

10 Enhance appreciation of unique EV advantages:

- a. There are a variety of issues that can – and should – be promoted as benefits, including VTL (VTx), ride quality, operational cost (lots of detailed opportunity here), depreciation rates, personal emissions reduction, responsible parenting, etc.

- b. V2G may offer some monetisation opportunities for an EV owner, but these should be promoted cautiously, bearing in mind the cost of infrastructure and risk to the grid.
- c. PV/BESS adoption/expansion can be stimulated along with EV acquisition.

11 Access to EVs by people with less disposable income

Creation of a vibrant used-EV market is essential. For example, many more people would consider a recent model EV with low km (e.g. a Tesla for \$45,000 or an MG for \$30,000) if it were similar in cost to an equivalent-brand's new ICE. There are a number of techniques one could use to rapidly accelerate churn of EVs into the used-car market. (And second-hand EVs become third-hand, etc... e.g. a Tesla for \$30,000 or MG for \$20,000.)

12 FCEV

Sale of hydrogen (for FCEV cars) which is not produced from 100% renewables should not be allowed in ACT.

Subsidy of the motor industry or oil industry for (very expensive) Hydrogen re-fuelling should be avoided until there is a suitable selection of hydrogen vehicles available in Australia at total cost per km similar to ICEs.

13 PHEVs

Policy should not treat PHEVs the same as BEVs as many PHEVs are driven mostly in petrol mode and are rarely charged, therefore not actually using their batteries.

PHEVs should not be allowed to take priority over BEVs at a public charger.