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 EV Vehicle Adoption in the ACT

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From: Grapevine Alan Vogt
To: LA Committee - PTCS
Subject: RE: New inquiry into EV Vehicle Adoption in the ACT
Date: Thursday, 30 June 2022 10:05:12 AM

Hi there

I would like to provide some input into the EV Adoption inquiry,

Our household (and home-based business) has been diligent in progressing toward some measure of independence from fossil fuel energy generation. Hopefully, this transition also prepares us for participation in some form of aggregated/decentralised domestic energy grid in the Canberra region.

I think at some point, owning an EV will make sense – particularly if it can play a role in supplementing our household's energy needs and energy independence.

When we purchased our home (some 15 years ago) we were encouraged to install gas as it was cheap and plentiful so we installed ducted gas heating, gas on demand hot water and gas cooking.

In recent years, we have progressively undone that move:

In 2017, we installed 26 solar panels on our roof
In 2019, we removed the ducted gas heating and installed two large reverse cycle AC systems
In June 2021, we installed 2 x Tesla Powerwall 2 units and a further 18 solar panels
In June 2022 we replaced the gas hot water with a heat pump hot water system and replaced the gas cooktop with induction cooktop
We have now terminated gas at the meter.

So far (and discounting the incentives/rebates received) this transition has still cost us well north of $50K.

We have invested significantly in a more responsible energy supply for our home but find two powerwalls only offer up a limited amount of stored energy.
In Summertime, our panels can generate up to 80-100KW hours per day and a good quantity of that goes back to the grid (for an increasingly small return). The Powerwalls fill quickly but the stored energy of two power walls is relatively small. As highlighted by the recent cold snap and periods of wet weather, we may only get a day to day and a half out of the batteries when it is cold.

Home storage needs greater capacity to be better able to bridge periods of bleak weather and lessen impact on Canberra's grid

Unlike ICE vehicles, EVs are more than transport – they could be a fundamental part of Canberra's energy grid.
An EV could increase our household's storage capacity by a factor of two or three and allow better utilisation of our investment in solar generation and our reliance on grid power at peak times.

Vehicle to Grid technology (V2G) – where the EV battery is utilised for the home or grid – seems an ideal opportunity to better support Canberra's transition away from fossil fuels. (A typical EV has in the order of 60-100kWh of capacity which vastly outstrips that of a powerwall)

V2G infrastructure could be an integral part of Canberra's fossil-free energy future. I understand ACT Government is currently running a project to evaluate the merits of V2G (The Realising Electric Vehicle-to-Grid Services project).

For me, purchasing an EV makes most sense when it can supplement our home storage and local 'grid'. Our current vehicle use habits would support this. Of course, V2G infrastructure must be cost effective to be embraced at scale (or at all). Low entry costs, rebates, incentives and partnerships should be part of that conversation. For instance, vehicle registration fees might be exchanged for grid participation.

An EV is more than just transport.

Regards

Alan Vogt
[redacted]