

Vehicle Emissions Discussion Paper – Electric Vehicles

Personal submission by Mr Christopher Dalitz

The opinions expressed in this submission are those of the author and NOT those of Essential Energy (EE), Engineers Australia(EA), The Electric Energy Society of Australia(EESA), the Australian Electric Vehicle Association(AEVA) or any other body or organisation of which the author is a member.

MY BACKGROUND

Thank you for the opportunity to comment and contribute to the Vehicle Emissions Discussion Paper. I am the proud owner of a small all-electric vehicle (a Mitsubishi i-MiEV) which I purchased new in April 2013. I have since taken many opportunities to talk about and promote EV's in the wider community. Consequently I have been asked to make technical presentations about EV's both nationally and internationally.

I therefore believe I can comment from personal experience, and with some authority, on those aspects of the discussion paper that relate to EV's.



My comments below refer to the numbered Questions in the discussion paper.

Q9. VEHICLE STANDARDS

If more stringent emissions standards were introduced, and this was to result in increased costs for internal combustion engine vehicles, this would reduce the price premium that currently exists for zero emissions (pure electric) or low emissions (hybrid) vehicles. This should hasten the inevitable transition to an electric powered light vehicle fleet.

Q10. ALTERNATIVE MEASURES TO EMISSIONS STANDARDS

Around the World, and even to some modest extent in some Australian States, there are incentives for the purchase and/or ownership of pure electric vehicles (ie zero emission) or low emission vehicles (hybrids). These incentives include, but are not limited to:

- Registration discounts
- Stamp duty discounts
- Preferential access to parking, transit lanes, CBD precincts etc.
- Concessional treatment for Fringe Benefits Tax
- Concessional treatment for income tax deductibility (eg maintenance, depreciation etc.) or a Tax Rebate.
- Subsidy or Grant for the purchase of a zero emissions or low emissions vehicle

From a policy perspective, these policies could have a limited time horizon (eg first five years) or a limit by number (such as the Federal Rebate in the US on the first 200,000 EV's).

Q23. GOVERNMENT FLEET PURCHASING

All levels of Government could MANDATE a minimum percentage of zero emissions vehicles in their light vehicle fleet. This was done in the early days of hybrid vehicles, and encouraged the uptake of vehicles like the Prius and Camry Hybrids. That percentage could start at a modest level (eg 2%) and increase over time (eg 5 years) to say 10%. There are commercial style EV's available overseas, that have been 'trianled' here such as by Australia Post (Kangoo Van below) and Taronga Western Plains Zoo (small truck).



Q24. TAXATION MEASURES

The luxury car tax concession should promote the uptake of zero emissions vehicles as distinct from low emissions vehicles ie three (or even four) tiers rather than the current two tier threshold.

An example structure could be as follows:-

TIER	DESCRIPTION	\$ THRESHOLD where 33% starts
1.	Zero Emissions Vehicle (BEV's – Tesla etc)	\$80,000
2.	Ultra low (<4) emissions Vehicle (PHEV's – BMW, Audi)	\$70,000
3.	Low emissions (<7) Vehicle	\$65,000
4.	High emissions Vehicle	\$60,000

The current State Government Registration discounts for an EV are modest, and in the case of NSW negligible. I recently registered my MIEV and was told my "reduction" was \$6.

All States should follow the Victorian lead of \$100 per annum registration discount.

All States should follow the ACT lead on stamp duty charges.



Tesla Model 3 Launch 31 March 2016.

Q26 ALTERNATE FUELS AND ELECTRIC VEHICLES

Studies that examine the 'cost vs benefit' of subsidies for the uptake of EV's often neglect qualitative benefits and externalities of EV's compared with fossil fuelled vehicles. Some examples are:

- Noise reduction (particularly in urban precincts)
- Reduced reliance on imported fossil fuels (and the fact we don't have a 90 day reserve)
- Environmental impacts avoided (eg transport of fossil fuels, spills, leaking fuel tanks etc.)
- Benefits of Controlled EV Charging as 'dispatchable load' to 'soak up' solar or wind generation and 'levelise' the Electricity Generation curve.

The lack of public charging infrastructure is often overstated, and based on overseas assumptions that do **NOT** apply in the Australian context and the Australian demographic. For example:

- The majority of Australians live in a free standing home with a garage, carport or off-street parking with access to a power point. This is not generally the case in Europe and America.
- Where Australians do live in apartments or flats they generally have off-street parking provided.
- Over 50% of Australian households have two or more motor vehicles, one of which could be electric, and the other can provide alternate and/or long distance travel.
- Australia has a 230 Volt standard (rather than 120V in the US) and many Australian homes have three phase supply (400V) to allow reasonably rapid home charging using their existing electricity supply. Studies and simulations by Australian Universities indicate high percentages of EV ownership (up to 80%) could be accommodated by the existing electricity infrastructure provided EV charging is controlled either directly (controlled load channel or smart meter) or via tariff incentives (time of use or demand based tariffs).

My personal experience, and that of other EV owners I know in Australia, is that the vast majority of EV charging is done:

1. At home
2. At night (or using solar power in the middle of the day)
3. Using 'greenpower' or their own renewable generation

To conclude this question, customer awareness of the benefits of EV's needs to be based on an Australian context, and not 'misinformation' from vested fossil fuel interests and overseas experience.

Thank you for the opportunity to contribute to the Vehicle Emissions Discussion Paper and promote the rapid uptake of Electric Vehicles in Australia.

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