Submission No 17

INFRASTRUCTURE FOR ELECTRIC AND ALTERNATIVE ENERGY SOURCE VEHICLES IN NSW

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Submission to the Infrastructure for electric and alternative energy source vehicles in NSW

I have owned a Tesla Y for just 1 year and during this time I have be able to access the available EV infrastructure between my town and Brisbane.

In general, Tesla has a very good charging network and without this network I would not have purchased an EV.

While I don't do many long-distance trips, I have found that the Tesla Y predicts reasonably accurately when I need to charge my EV to continue my trip and to select a Tesla Supercharger for a quick charge.

The advantages of the Tesla super chargers are:

- Fast DC chargers. Most Tesla superchargers are 250kW DC. The Tesla Y max charging is 250kW. The advantage is that charging to complete a trip is relative short e.g. 10-20mins. Often we go to get a coffee and the Tesla is telling us that the car is ready to go.
- There are usually a good number of chargers at each location. E.g. Thrumster 12 chargers at 250kW, Moonee Beach 15 chargers at 250kW, Yass 12 chargers at 300kW.
- Locations. The locations of the Tesla chargers are positioned away from the busy highway petrol stations. Usually, the locations are very pleasant with modern facilities and toilets. Some are located at Wineries.

In contrast, the few non-Tesla chargers (including the NRMA) have the following problems:

- Limited charging capacity and limited chargers. E.g. NRMA Thrumster 2 chargers at 50kW, Berry 1 charger at 50kW, Yass 1 charger at 50kW. PB usually only has 2 chargers at the service stations with a maximum of 75kW.
- The limited number of chargers and the low charging rate means that longer times are required and means longer cues.
- Very few charging stations. Between Newcastle and the Gold Coast, BP only have 2 locations. Tesla has 9 !!
- Often these charge stations are not working. E.g. at the time of writing the NRMA at Yass is not working.

In addition, there is no State or Federal Government requirement for new service stations to have EV charging stations. The time to install the mains cables to these charging stations is during construction as after construction there maybe insufficient electrical capacity to retrofit chargers.

In conclusion, I believe that lessons from the successfully Tesla charging station network can be applied to new initiatives, namely:

- Ensure that a minimum number of chargers (at least 12) are installed at each location with minimum of 250kW DC chargers.
- Installation should be separate to service centres unless new service centres install enough charges at high charging rate.
- Locations of charging station should allow for quick battery top-ups to continue trips.
- Promote the advantages of EV chargers to service stations which include access to food services etc.