

ISSUES PAPER

2020 RETAIL ENERGY COMPETITION REVIEW: ELECTRIC VEHICLES

QUESTIONS FOR CONSULTATION – Draft SAGA (Swap & Go alliance) responses

Question 1: Context

Are there any other contextual developments the Commission should consider in relation to EV uptake and use in Australia?

Swap & Go batteries for small vehicles (and also for large batteries for buses and trucks) make great economic sense in terms of jobs and productivity as long as there is a common interchangeable pack for a range of applications.

Although Betterplace lost over \$800m trying to get EV manufacturers to adopt one battery standard, this does not apply to the small market (under 15kg) where customers don't need special equipment or with buses which are all the same.

There are >1500 swap stations, globally, already exchanging >100,000 batteries every day currently.

Question 2: Role of retailer

What challenges and opportunities, given the current role of retailers in the NEM, are EVs likely to provide retailers?

Aggregation of electric vehicle charging loads provides a 'virtual battery' of charging stations that can ramp up and down to meet demand, with customers receiving incentives through retailers from the Demand Management Incentive Scheme (DMIS) network providers.

There are many ways to use the electric vehicle batteries technology 'behind the meter'. But so far, limited applications mean there aren't many retail products on offer.

Question 3: Regulatory environment

- a. Do you consider that regulatory changes, like multiple trading relationships, that improve a consumer's ability to engage with multiple FRMPs at a household would enable innovative services and products to develop for EV consumers?

Trading relationships to enable a wide range of customers like aged care, workers, students, shoppers to participate need to be flexible across participating parties.

- b. Do you have any views on an appropriate method (e.g. through a change to the SGA framework or an alternative metering configuration), and relevant costs, to facilitate this?

The regulations are not in workplaces, shopping centres and car parks where EVs can sell back their power to businesses in shopping centres etc. The value of these are also dependent upon the renewable energy content at the time of charge or discharge. There are different values depending upon the time of the day as well as the Net Zero contribution value etc.

Question 4: Residential charging

- a. Are there other offers in the retail market, or are you developing any others, aimed at EV consumers?

Combining the home battery with the V2G charger enable the connected battery to be in the car or in the garage. A range extender that can be bolted to the wall or the car or a golf cart are new types of emerging charging infrastructure.

- b. Are there retail market barriers in developing residential products and services for EV consumers?

The barriers to developing residential products and services are lacking due to the absence of EV incentives. Currently there are no incentives to Plug'nPark where customers can get a charge while at train and bus park and rides etc.

Question 5: Non-residential charging

- a. Are you providing or developing any non-residential charging products or services?

Buses, Trucks and Fleets are the traditional commercial markets where the same barriers exist. It is regarded that multi-tenanted is commercial and represents an opportunity to significantly reduce costs of transitioning to Net Zero emissions.

- b. Are there retail market barriers in developing non-residential EV charging products and services?

The body corporates (owner corporations) need finance not currently readily available for this sector and incentives to tap into rolling funds with new revenue models will be required.

Question 6: EV value streams

- a. Are you currently developing products and services to harness EV value streams?

V2G Chargers allow 2-way flows of power when required during peak events which can be combined with residential battery schemes. New smart inverters are capable of charging and discharging EVs up to 800 VDC and are only marginally more expensive than 1 way chargers with the home battery.

- b. Are there retail regulatory barriers for retailers or new energy service providers accessing these value streams?

Australia is in danger of repeating the UK smart meter experience where each retailer had their own cloud and it took up to 6 weeks to complete retailer churn. Version SMERT 2 of UK smart metering now uses a single data communication company (DCC) to enable quicker changes of retailer.

This will apply also to VPPs where every retailer offers a different VPP service with little customer churn options. It is recommended to expand the DER register to swap batteries within the AS4755 demand response modes as per the SA Battery VPP requirements.