



19/03/2019

Mr John Pierce
Chairman
Australian Energy Market Commission (AEMC)
PO Box A2449
Sydney South NSW 1235

Via electronic lodgement

To John,

2020 Retail Energy Competition Review: Electric Vehicles

Thank you for this opportunity to provide feedback on electric vehicles (EVs) as part of the 2020 Retail Energy Competition Review. Mondo provides a variety of contracted transmission and distribution services, including grid connections for new generators, battery energy storage systems and aggregation of distributed energy resources (DER).

We anticipate that the rapid uptake of electric vehicles will make them an essential component of future consumer electricity needs. This will have wide ranging impacts on electricity markets, networks and Retail competition. We support the Australian Energy Market Commission (AEMC) in exploring these issues now.

1. Contextual Developments Relevant to Electric Vehicles

Supporting EVs through Technology Agnostic Reform

The issues paper provides a focused view on specific issues through the lens of EVs and Retail Competition. This type of analysis is essential to ensure that reforms meet the requirements of EVs, which are a key emerging technology that is likely to have a significant impact on energy markets. However, many of the underlying issues including Multiple Trading Relationships, network tariffs and DER Aggregation are not exclusive to EVs. Consequently, we would encourage the AEMC to consider the issues raised in this consultation from the perspective of other technologies and develop any reforms in a technology neutral ('technology agnostic') manner. This approach would focus on performance

Bright future.

outcomes rather than technology types, allowing innovators the broadest choice of technologies to address market needs.

Network Tariffs

The cost of EV charging is a result of both electricity market prices and network tariffs, with customers seeing and responding to the sum of these costs. Consequently, the network tariff context must be considered as it will influence how, when and where EV charging takes place.

Historically, 'controlled load' tariffs have played a large part in incentivising the efficient use and management of power intensive appliances, particularly in relation to residential water heating systems. However, this approach does have its limitations. Controlled load tariffs would require changes to metering and wiring at the house, and do not facilitate the dynamic optimisation of network and wholesale market value, which is possible via emerging VPP technologies. More recently, some networks have introduced 'cost reflective tariffs', including residential demand tariffs and time of use tariffs. Each of these tariffs encourages some level of efficient charging, albeit each with their own limitations. Mondo therefore encourages careful consideration of the network tariff context, and the impact of tariffs on charging behaviour and the enablement of VPPs.

We also note that the efficient integration of EVs into distribution networks would increase network utilisation, reducing residential network tariff rates. This outcome is in the interests of consumers, networks and EV owners.

Virtual Power Plants (VPPs) and Aggregation

EV charging (and discharging) is highly discretionary and dispatchable. As such, EV's have the potential to be aggregated, like other DER, and used to deliver services to networks, retailers and markets. Current activities being carried out by AEMO provide additional insight into AEMO's thinking of the potential for DER to provide support services, in particular:

- The VPP Demonstration Program
 - The implementation of the DER register
 - The Distributed Energy Integration Program (DEIP)
- The procurement of Reliability and Emergency Reserve Trader (RERT)

We also note that AEMO is currently exploring the use of non-pattern approved meters for the delivery of FCAS via VPPs. This is occurring as part of the VPP Demonstration Program. There may be similar practical approaches that can be applied to EVs to incentivise smart charging.

We strongly support the consideration of these practical initiatives and their adaptation to include EVs.

2. The Role of the Retailer

Within the current framework Retailers fulfill wholesale settlement and customer billing functions, as the sole Financially Responsible Market Participant (FRMP) for a particular premise. This effectively provides Retailers with the exclusive ability to benefit from the smart management of domestic EV charging in response to the spot market. Consequently, under current regulatory settings the role of the Retailer may expand to include smart EV charging services. However, we note that this outcome is primarily a consequence of regulatory settings. Further, this may encourage the vertical and horizontal integration of electricity Retail, Aggregation and Electric Vehicle industries, which may impact competition in each of those markets. Retail switching in particular may be inhibited through the bundling of EV and energy products.

Alternatively, charging services may be unbundled and provided by third parties including for example, Aggregators and vehicle manufacturers. This would allow specialist EV charging services to emerge

which minimise customer charging costs, maximise service revenues (as part of a VPP), and ensure that EVs are sufficiently charged. In this scenario, Retailers may play an important role in passing through spot market price signals.

Mondo believes this second option, the unbundling of charging services, would provide customers with more choice and increase competition in the provision of Retail, EV and Aggregation services. This is a desirable long-term goal, and we would support the Commission in exploring a wide range of options to achieving this.

3. The Regulatory Environment: Multiple Trading Relationships (MTR)

Mondo strongly supports regulatory reforms which allow for the efficient integration of DER, including EVs. A key to this is the provision of price signals to EV chargers and Aggregators, which incentivise efficient flexible charging based on network and market needs. MTR for EV charging services could achieve this outcome, however this must be balanced against the cost of implementing MTR and any alternative policy options.

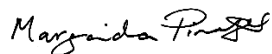
Cost is a particularly relevant issue, as the intent of efficiency and competition promoting reforms is ultimately to reduce costs to consumers. However, we need to acknowledge that the introduction of MTR would create costs resulting from both the consultation and implementation process and we should aim to reduce these costs where it is practical to do so. We believe MTR related costs would be reduced by combining any EV related MTR rule change with other changes likely to result from the Energy Security Board's (ESB) NEM 2025 Review. This more holistic approach would allow reforms to be aligned and implementation synergies realised. We note that this would also allow reforms to take place before EV uptake is forecast to accelerate, which is around 2027-2028 (as presented in the issues paper).

In the immediate future, Mondo would support any easy, voluntary and practical initiatives that provide incentives for smart charging, EV aggregation and increased visibility to AEMO and networks. This could include initiatives such as:

- Explicitly including EV charging within the existing VPP programs, such as AEMO's VPP Demonstration Program
- Streamlining access to FCAS and RERT revenues
- Developing model or default contracts between EV customers and Retailers, which facilitate smart charging. Such contracts may include provisions to 'pass through' spot market price signals, enable third party EV chargers, and facilitate Retail switching for EV customers

Please feel free to contact Daniel Brass (daniel.brass@mondo.com.au or 0488 135 557) if you have any questions in relation to this submission.

Yours sincerely,



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