EV workshop on Victorian tariff structure statement proposals for 2021-26

Wednesday 11 November 2020, Microsoft Teams

Presentations

AER Board Member Mr Eric Groom welcomed participants and noted the workshop is part of the AER's engagement to inform our consideration of Victorian distributors' tariff structure statement proposals for the 2021-26 regulatory control period. This workshop brought together stakeholders who raised tariffs for electric vehicle (EV) charging as an issue for the AER to consider in our Final decisions. Board Member Groom noted that EVs represent both a challenge and an opportunity for the energy sector and that establishing the right network price signals will be critical to how EVs impact electricity networks.

Senior Policy Advisor in the Victorian energy department, Daniel Zhang, outlined the broader policy environment and noted the government sees affordability, equity, sustainability, and reliability for all consumers as the objectives for network tariff reform. With the EV industry growing, the next five years provide an important opportunity to implement price signals to inform the evolution of charging behaviour. Daniel noted tariff trials will help improve understanding of the role network tariffs can play in informing EV charging behaviour.

Special Economic Advisor at the ACCC, Darryl Biggar, summarised his thoughts on the theoretically ideal tariff to deliver network tariff reform. He noted that such a tariff varies dynamically with locational pricing setting the off-peak prices (cost of maintaining the network) and peak prices (costs of maintaining and of congestion). He likened cost reflective tariffs to heating kettles and urns. Consumers can use kettles, which are like peaky loads, but should face the costs imposed on the networks from the intense peaks. Consumers with urns, which have steady loads like batteries, should be rewarded for this behaviour and the reduced strain the flatter load places on the network. Darryl noted that the right network price signals can shift EV demand to optimise charging (and export) behaviour.

Director of Pricing at the AER, Dale Johansen, reminded participants that we are only three to four years into the 10 to 15 year process to deliver tariff reform in five year increments. Dale noted that the National Electricity Rules' customer impact principle guides the pace of transition during this period. He further noted that the AER's draft decision on the Victorian distributors' proposed tariff structure statements accepted most elements of these proposals. However, he noted that we required tariffs to be put in the context of the distributors' expenditure plans and broader business models. For small customers we required EV users to be mandatorily assigned to cost reflective pricing once identifiable, consistent with Victorian Government policy. While we accepted the proposed tariff structures for large customers, we asked distributors to provide a choice in large customers' network tariffs.

Discussion

Broader tariff strategies

Participants generally accepted the long term goal of network tariff reform. However, there was debate around the appropriate pace of transition. It was noted that establishing a dynamic, locational pricing model would be challenging at this time. But there was a question about whether the emergence of EVs could hasten the transition.

It was noted that Victorian networks are not expecting significant network constraints over the next five years. This led to a suggestion that the current focus on improving consumers' familiarity with more cost reflective tariff structures and on understanding the balance

between constraint pricing and residual revenue recovery is appropriate for now. The AER also reiterated the Rules place weight on consumer acceptance (understanding and engagement) and the need to coordinate with the overarching policy environment. Generally stakeholders seemed to support placing consumers at the centre of the discussion.

It was noted that export pricing could come in over the next few years (but after this regulatory period) and tariff strategies will need to signal both consumption and export related periods of network congestion.

Tariffs for electric vehicle charging stations

Behyad Jafari, CEO of the Electric Vehicle Council (EVC), and Larissa Cassidy, Policy Manager at the EVC, started their presentation by summarising the EVC's submission to the AER. They described challenges faced by EV charging stations given their large capacity requirements but low asset utilisation at this early stage of the EV industry's development. They questioned the interactions between connection charges[1] and network tariffs and asked for more innovative tariffs to be trialled. In conclusion, Behyad and Larissa queried whether EV charging stations could be exempted from tariff class assignment criteria so they may access small customer time of use tariffs and avoid large customer demand tariffs.

Staff from distribution networks (including some from networks outside Victoria) described their interest in engaging in tariff trials but were clear that such tariffs would need to reflect the fact network costs are driven by the provision of capacity. They also expressed concerns about equity as networks are required to price consistently those customers with similar connections and consumption behaviour. It was noted that the example load shown by EVC staff in their presentation could also represent other users, such as: medical facility intermittently using energy intensive imaging technology or irrigators running water pumps. But it was agreed that tariff trials could be used to help all loads be priced more innovatively in the next regulatory control period, particularly if trialling less static peak periods and/or locational price signals.

The use of storage to help mitigate the impact of EV charging stations on the network and the energy cost of operating these stations was also mentioned. It was accepted that storage could be part of the solution, but it was agreed that tariffs should incentivise behavioural change and it is for customers, such as EV charging stations, to decide how to respond.

Tariffs for electric vehicle owners

Lynne Gallagher, CEO of Energy Consumers Australia (ECA), and Mick Fell, Consultant at Energeia, outlined a proposed a voluntary shorter, sharper retail tariff trial for households with EVs. The tariff could be open to other households given the focus of technology neutrality for tariff reform. The tariff could be charged separately to general consumption with a simple tariff of 10 c/kWh, except for a few short peak periods when high prices would signal significant constraint on the network. This provides households with a tariff they can understand and respond to, potentially with help from a retailer or energy service provider.

It was agreed that retailers are the parties that face network tariffs. They manage complex and volatile wholesale prices now and translate them into simple, understandable retail offers already. Retailers generally support cost reflective network tariffs and are already starting to explore what different consumers can understand and are willing to engage with. So a similar approach could be applied to network tariffs or alternatively they may automate responses to more complex tariff structures. This will continue to evolve with the potential introduction of export network tariffs. The practicalities of charging load separately to general consumption is still being worked through.

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[1] The AER addressed submissions on the connection charging arrangements in our draft decisions for the Victorian Distributors, see for e.g. AusNet Attachment 18