

Evie Networks Response to Public Charging Questions in the ESB Smart Charging Issues Paper dated July 2022

Public EV Charging

Grid Connections

18. What are stakeholder views on the use of technology specific tariffs, approved by the regulator, but operating under different metrics? What might be any unintended consequences of introducing EV CPO specific tariffs?

- The position of Evie Networks is set out in a detailed Commercial-In-Confidence pack provided to the ESB.
- Evie Networks would welcome the application of network tariffs specific to high power electric vehicle charging stations. We see this as an energy affordability issue especially for small businesses, individual contractors and consumers who cannot charge at home or in a depot.
- This is not just an issue at low levels of utilisation. The current tariffs will result in the network tariff component representing 48% to 66% of the CPO's total energy costs, even at high levels of utilisation.
- These costs must be passed through to consumers, resulting in unnecessarily high charging costs, especially for those drivers who are unable to charge at home.
- Were suitable network tariffs enacted, competition between CPO would result in most of the savings being passed through to consumers.
- This would boost the uptake of electric vehicles and support the CPOs through better economies of scale.
- Many jurisdictions around the world have introduced such tariffs in recognition of the substantially different nature of mobile loads, need for equity, and the benefits of the uptake of electric vehicles.
- Evie Networks recommends that the ESB propose to Energy Ministers:
 - The acceptance of a prima facie case that off-peak power supply to public EV DC fast charge stations at the same off-peak tariff offered for EV charging in residences, and that a specific, transitional tariff be introduced without delay to support the rollout of public DC fast charging sites, with this tariff being such an Energy-Only Tariff and set at a rate that would produce an energy cost equivalent to that paid by an EV owner charging at home; ie, not greater than residential off-peak tariffs.
 - This specific tariff operate for a defined period (say, 5 years), during which there would be a formal process for the collection and analysis of appropriate data from public DC fast charging sites to develop, in conjunction with the EV charging infrastructure industry and engaging with both the ESB and AER, a specifically designed cost-reflective tariff (or tariffs) that reflects the special characteristics of electricity demand at public DC charging sites and promotes the efficient use of the grid, with this tariff (or tariffs) to form part of DNSPs' subsequent access arrangement proposal.
 - Amendment of the National Electricity Rules to remove the current "roadblocks" to the introduction of a specific tariff to support the rollout of publicly available DC fast charging sites, with this to be implemented through an expedited set of Rule Changes.



19. What measures might be helpful to consider to streamline the connections process for public charging infrastructure?

- CPOs seeking to deploy high power charging locations often experience significant delays in securing confirmation from the DNSP of the ability to connect at a particular power level at a particular location. While it is clearly necessary for DNSPs to have robust processes around new connections, the experience of the CPOs is that it can take 12 months or more from initial application to energisation, which is far longer than the global norm.
- There are clear differences in the connections process performance between DNSPs. In recognition of the number of chargers and other DER/CER likely to be installed over the next decade, Evie Networks recommends that the Australian Energy Regulator benchmark DNSPs and prepare an appropriate Guidance Note for DNSPs to follow. In addition, DNSPs should conduct process improvement and increase staffing levels in this area.

Measurement

20. Aside from the grandfathering issues noted for existing equipment, are there any other metrology issues concerning public EV charging that should be considered?

- Standards need only provide for revenue grade performance for the DC meters. Public chargers are already connected to a pattern approved NMI meter at the point of connection. Reputable chargers built to international standards generally include revenue grade meters.

Pricing

21. What mix of arrangements might facilitate flexibility in charge point pricing to encourage more drivers to charge during times of excess renewable energy?

- We strongly disagree with the following statement in the consultation paper: "To compare to requirements relating to charging for petrol or diesel, the visibility for customers wishing to access EV charging facilities is very opaque"
- Electric vehicle charging is an inherently digital experience. CPOs typically present pricing in c/kWh in real time on smartphone apps along with charger status.
- In future they can quickly post special pricing offers on the web, in the app or as an alert.
- Our usage data shows that public charging is already quite coincident with daytime solar production. Many commercial drivers charge in the middle of the day and late at night since they work during the morning and evening traffic peak hours.
- CPO should be free to determine market pricing in a competitive market. Strong price signals from the NEM, Time of Use tariffs and well-designed EV charging specific network tariffs will give CPO an incentive to maximise utilisation by spreading charging throughout the day while avoiding the peak tariffs.

Payments and Charge Data Records

22. What do stakeholders view to be important considerations for ensuring protections are fit for purpose for consumers using public EV chargers with regard to payments and any associated disputes?

- Public charging is not a monopoly business in need of regulation. There will be strong competition between multiple CPO, existing energy retailers and consumer brands aggregating access to charging, and the option of charging at home.
- The protections required are no different from any other competitive discretionary consumer service. Like petrol, and unlike a residential retail electricity connection, the majority of consumers can quickly and easily switch supplier by attending another station.
- Consumers should have visibility of pricing on a website or in the app before attending a station.



- Consumers should be able to access a tax invoice that complies with ATO rules that clearly states:
 - Date
 - Time
 - Location of charge
 - kWh consumed in charging the vehicle
 - Price per kWh
 - Total Paid
- Note also that electric cars make their own measurements of the state of charge, which while they may not exactly correlate to the DC meter, provide a guide to the user and create an incentive to deliver the right amount of energy.

Roaming

23. The ESB welcomes stakeholder views on when they consider the issues associated with roaming might become a policy issue to address in Australia?

- We doubt that roaming will become a policy issue to address in Australia. If it were to become an issue, we expect that it would be managed by the ACCC rather than the regulatory regime for the electricity market.
- The biggest danger in roaming, and especially a mandated roaming regime, is the consolidation of market power to the gen-tailers, automotive OEM or oil companies to the detriment of competition.
- For example, in Europe two of the roaming layers are owned by consortiums of utilities and auto manufacturers respectively. Both have come under pressure for anti-competitive behaviour.
- Roaming will lead to higher costs if there is an extra entity and an extra transaction in the value chain.
- An alternative approach, common in the US, is bilateral API to enable roaming which eliminates the intermediary and many of the costs.
- The simplest solution is to provision chargers with Credit card readers. This enables a driver who arrives at a charge point for which they do not have the app, and/or do not wish to download the app to charge by a simple tap of a credit/debit card or a mobile phone. The credit card is the universal tool that can roam across all public charging networks that support credit cards.