



EnergyAustralia

LIGHT THE WAY

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Energy Security Board
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Response to Electric Vehicle Smart Charging – Issues Paper

EnergyAustralia is one of Australia's largest energy companies with around 2.4 million electricity and gas accounts in NSW, Victoria, Queensland, South Australia, and the Australian Capital Territory. EnergyAustralia owns, contracts, and operates a diversified energy generation portfolio that includes coal, gas, battery storage, demand response, solar, and wind assets. Combined, these assets comprise 4,500MW of generation capacity.

EnergyAustralia welcomes the opportunity to respond to the ESB's issues paper. Our submission below responds to areas of particular interest to EnergyAustralia.

2. The ESB welcomes stakeholder views on the introduction of minimum EVSE equipment standards without remote management, and whether this will provide future optionality for managing peak demand.

We agree with the Clean Energy Council's (CEC) submission that electrical safety requirements for EV chargers should be settled before standards for remote management are introduced, and that EV chargers should be added to the CEC framework. The CEC should maintain a registry of approved EV charging assets and approved installers and retailers, like the arrangements in place for solar PV, batteries, and inverters today. It will be key to have a way to track EV charging installs (the installer, time of install, and the model installed), similar to the Solar Installing CEC processes.

EnergyAustralia sees potential benefit in mandating remote management to facilitate the orchestration of EV chargers by Charge Point Operators (CPO), including at an aggregated level. This will be key to manage peak demand at scale in the future. A cost benefit analysis should be undertaken to assess whether the benefits of remote management (to customers through lower energy costs and indirect benefits through system benefits) will outweigh the asset costs.

4. What are stakeholder views regarding the adoption of these standards in the Australian context? Do stakeholders consider the OCCP1.6(J) the most appropriate international standard to adopt? Are there additional standards or options that should be considered in the short term?

We agree with the CEC's submission that international standards should be used wherever practical and that OCCP 1.6J would be a good candidate should there be an urgent need to set a minimum

communications protocol today. From a software perspective, EV charging should be open protocol for software platforms to access.

6. The ESB welcomes stakeholder views on requiring default tariffs at the point of installation of a charging system. Do stakeholders have views on the merits of using network specific windows of time, or are state-wide defaults more appropriate?

We support further consultation on default charging configurations (which can be overridden) and corresponding default tariffs (which can be opted out of). Where a default tariff is applied by the DNSP (Distributed Network Service Provider), Retailers should retain the flexibility of choosing whether to pass default tariffs onto customers. Ultimately, the best outcomes will be achieved where DNSPs and retailers work together to design tariffs that are simple for customers to understand and harness value for the customer.

Default tariffs may need to be segmented by customer type to reflect that customer segments have different abilities to be flexible as to when they charge. E.g. residential charging vs commercial fleet charging. Default settings and tariffs should also potentially not apply where the EV charger is connected to on-site energy sources to reflect that their impact on the network would be limited, compared to EV chargers that are only connected to the grid for electricity supply. Default settings should be flexible enough to be able to differentiate on this basis.

Any default tariffs would need to be set at the network level, rather than state level, but broad consistency in tariff structures would support the efficient implementation of network tariffs by Retailers.

9. What are stakeholder views in regard to the use of CPOs for residential charging? What are stakeholder views on which parties (Traders (retailers/aggregators), DNSPs, OEMs, other parties) should be able to take on the function of CPO? Should the requirement for a CPO be mandatory?

We support the use of the CPO in the residential customer context. However, we do not see the CPO as a separate role. Rather, the CPO functions should be delivered by Retailers or Aggregators.

Where the CPO sells electricity that is supplied to EVs, a Retail authorisation/exemption should be required for that sale. The fact that the sale of electricity is for an EV does not materially change the function.

Where the CPO is controlling the EV charger to lower the customer's energy cost, or to aggregate multiple customer's load to obtain further value, Aggregators should perform the CPO function. This reflects that for Aggregators, an EV charger is one form of flexible load among many forms. We note that the AEMC is considering a further role – Flexible Traders – which if implemented, could also be able to undertake the CPO functions.

With the exception of DNSPs, anyone should be able to become a Retailer/Aggregator provided they meet the regulatory requirements of that role. E.g. obtain a retail authorisation if becoming a Retailer; market registration if participating as aggregator etc. DNSPs should not be allowed to become a Retailer or Aggregator (participating in wholesale energy and ancillary service markets), in line with the principle that DNSPs are not able to participate in competitive markets and to protect against competition issues.

We recognise that sometimes CER, including EVs particularly if they can be used as batteries in the future, will be used to support the network e.g. used to regulate voltage. DNSPs should be able to self-provide these services. Trials are being run which experiment with Retailers and distributors sharing the same CER asset to provide different value streams, in a way that ensures DNSPs are not inappropriately participating in wholesale markets.

For example, United Energy and Simply Energy are sharing the use of pole-mounted batteries. United Energy will use them to reduce stress on distribution transformers in times of peak demand and to regulate voltage and increase the hosting capacity of solar PV. When United Energy is not using the batteries, Simply Energy will operate them to provide wholesale power and frequency control ancillary services.¹ These types of sharing arrangements will be critical in the future.

Customers should not be mandated to appoint an aggregator to control their EV charger. However we note that customers will have to contract with an energy retailer to buy electricity supplied to an EV charger at the customer's premises.

10. What are stakeholder views in respect of the relevant and appropriate responsibilities that should be taken on by a CPO: e.g. ensuring rate limits, customer support?

As CPO functions should be delivered by a Retailer or Aggregator, we would expect that the relevant and appropriate responsibilities that align with either of those roles would apply. Special responsibilities specific to EV charging are not necessary.

11. What functions would CPOs be required to perform on behalf of customers?

This depends on the CPO function. Where the function involves selling electricity, we expect that the CPO would undertake the functions of a retailer selling electricity. Where the function involves controlling the charging times and aggregation services, the aggregator would have network related or market facing responsibilities like they do for residential batteries. For example, ensuring conformance with any network dynamic operating envelope requirements and directions from AEMO etc.

12. What obligations would be required by CPOs to ensure that there are adequate protections for end consumers?

Information about the timing of EV charging and how that affects electricity bills will be essential to protecting customers. We strongly believe that the competitive market has strong incentives to provide clear information on this matter. However, if some level of regulation is considered, we would support a light touch approach to consumer protections focussing on adequate information at point of sale and ombudsman access. Any further regulation is not warranted in the absence of evidence of systemic customer harm.

We note that the AER's Retailer authorisation and exemption review will be considering consumer protections for new services, including those associated with EV charging. Another consultation by the ESB on this issue is not necessary.

13. Should there be a minimum requirement to capture installation of EVSE, to assist with effective planning and operational management, similar to that already in place for solar?

Yes, we support the connection of an EV charger being recorded on the DER register, to assist with planning and operation, particularly where there is EV to grid capability. This would provide transparency to other networks and AEMO on key details about the EV charging asset e.g. maximum capacity etc.

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?

¹ [Transforming the grid with pole-mounted batteries - Australian Renewable Energy Agency \(ARENA\)](#)

As a general position we do not support the use of technology specific metrics in network tariffs. It is important that the same price signals apply for the same level of impact on the network, irrespective of the type of technology consuming the electricity. To adopt a different approach could result in the over or under investment in public EV chargers versus alternative uses.

The Issues Paper discusses cross subsidisation. We would also be concerned with any cross subsidisation whereby public EV chargers pay less in network tariffs, due to them being subsidised by other customers on the network. Again, this could result in inefficiencies in energy use because the cross subsidy would negate the price signal. E.g. where public chargers are cross subsidised by all other users, a customer may choose to use a public charging station because it appears to be cheaper compared to charging at home, when this is not the case.

We accept that at a public policy level, the Government may choose to subsidise EV uptake via subsidising network tariffs for public charging. This should be funded directly by the Government (general taxpayer) in payments to DNSPs, similar to how premium solar feed in tariffs were administered to incentivise early adoption of solar PVs. This would incentivise EV public charging without increasing the cost of alternative energy use (e.g. charging at home), and thereby help to reduce any distortionary, inefficient impacts.

Another observation is the limited usefulness of demand tariffs to shape CPO behaviour. Demand tariffs are a capacity charge. The demand charge reflects a customer's maximum electricity usage in a time window e.g. 3pm-9pm. The customer's highest energy usage for that month is then used to set the demand value which is multiplied by the DNSP's demand charge to calculate the total cost of the demand tariff.

If network augmentation is required to connect a public EV charger, this will be charged to the CPO in the connection fee. Charging demand tariffs on top is likely to disincentivise investment by CPOs, because CPOs will not want to reduce the number of customers charging at a particular time (i.e. to lower their maximum electricity usage). Instead, they will want to maximise customers. Charging a demand tariff will not change the CPO's behaviour, it will only add a further cost to the customer. The better price signal to incentivise usage at the right times is time of use tariffs which charge a higher price at peak times of network congestion.

If you have any questions in relation to this submission, please contact me (Selena.liu@energyaustralia.com.au or 03 9060 0761).

Yours sincerely,
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