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Energy Security Board

Submitted electronically: info@esb.gov.au

Dear Sir/Madam,

Consultation: Electric Vehicle Smart Charging Issues Paper

The Australian Energy Council (AEC) is the peak industry body for electricity and downstream natural gas businesses operating in the competitive wholesale and retail energy markets. Our members collectively generate the overwhelming majority of electricity in Australia, sell gas and electricity to millions of homes and businesses, and are major investors in renewable energy generation. The AEC supports reaching net-zero by 2050 as well as a 55 percent emissions reduction target by 2035 and is part of the Australian Climate Roundtable promoting climate ambition.

Enabling capability and enabling customer choice

Purchasing an electric vehicle (EV) is a choice, and the widespread adoption of EVs will contribute to the alleviation of problems such as environmental pollution, global warming and oil dependency. Much of our understanding of charging behaviours comes from overseas, and a better knowledge of Australian consumer preferences for EV charging can make their increasing penetration more effective and efficient by informing EV policy. Overseas studies indicate that mobility and car related conditions form a minor reason for EV adoption, and the consumers main motivation is energy conservation and environmental protection.

The hypothesis that smart charging can avoid the consequences of the cost of increasing peak demand, with more equitable outcomes being concomitant with this avoidance, is quite compelling. The question is in the early stages of EV adoption, what should we be doing now? The AEC believes that the most pressing requirement is establishing minimum standards for EV chargers in Australia in such a way as to avoid limiting present or future consumer choice on EVs. Given the absence of a domestic car manufacturing capability, this is logically achieved by the adoption of international standards.

Minimum standards for smart chargers

To maximise consumer choice, the AEC supports the adoption of international standards for EVs and EV chargers wherever practical. The AEC does not support the creation of discrete Australian Standards, nor does the AEC support State jurisdictions creating these standards. The recent decision by the South Australian Government mandating AS 4755 for EV chargers has disappointed industry stakeholders, and will likely have long term implications for the adaption of EV's in South Australia.

In keeping with the sequencing of policy reforms for EVs in a logical way, the AEC would prefer that the electrical safety requirements for EV chargers should be settled before any standards for remote

management are introduced. However, the AEC would support requirements that new EV charging equipment includes Open Charge Point Protocol (OCPP) 1.6J communications capability or higher. The AEC further notes that OCPP 1.6J works with ISO 15118, and if OCPP 1.6J is adopted then charger to vehicle communications in the domestic charging context does not really warrant further ESB consideration.

Tariff reform

The AEC has not supported the mandatory application of a “prices for devices” approach to either network tariff design, nor to their mandatory reflection in retail tariffs. As promoters of customer choice, the AEC prefers that customers can choose from a suite of options from multiple providers with the incentive being with the provider to allocate its costs efficiently and encourage change in consumer behaviour where necessary. There is currently a lack of truly cost reflective network tariffs offered by networks, that is where the actual impacts of customer demand is the reason for setting the network tariff. There is also little data as to whether these existing attempts at cost reflective network prices applied at the small customer (NMI) level drive sustainable change in consumption patterns that results in either deferred or avoided network augmentation.

Network cost reflective tariffs, with the application of tariffs over the entire network, has the practical effect of penalising customers in network locations where there is no congestion challenge, and creates costs for these customers even when they are not contributing to the actual problem as well as not providing them with any commensurate network benefits. Such tariffs are not a new idea and may also lock in poorly designed charges that send the wrong investment signals to customers in other parts of the network, as was historically the case with off peak storage and hot water tariffs. EV's, like solar, may create significant inequities and costs between different customer classes, but network tariff assignment is not really a solution. This is especially where, as with EV's, we haven't yet really identified the problem it is that they are expected to solve.

Competitive neutrality

The supply sale of electricity and gas to small users is considered an essential service. As such, supply and sale has not sought to identify the purpose of consumption and the regulatory frameworks do not discriminate in favour of specific business models. Changes to rules around embedded networks to make them consistent with the broader consumer protection framework have highlighted the need and desire of regulators to consolidate this framework.

Regulatory frameworks that facilitate effective competition will deliver innovative and customer focused service offerings regardless of the customers appliance mix, including EVs. Excising specific benefits to a Charge Point Operator (CPO) for participation in network support services while the FRMP remained liable for network charges and compliance with consumer protections creates a two tier arrangement, nominally an economic free rider problem that distorts markets. This is not in the consumers long term interests, nor in the interests of fair regulation.

Balancing choice and consumer protections for an essential service is complex, however no FRMP business would voluntarily provide the CPO its services under these proposed conditions. It is also not apparent what the CPO model is trying to solve. Existing retailers and other competitive service providers are already developing and providing EV products within the existing consumer protection framework and retailers already optimise wholesale price risk and hedge costs on behalf of customers, and DER will be integrated into that as trials have shown. There is every reason to expect that these EV and DER related products can evolve with consumer preferences and there is no pressing requirement for the regulatory framework to devote itself to niche business models, nor to encourage the inefficient distribution of goods or services that is inevitable when some firms pay less than their fair share of the costs.

Electric vehicles are cars

To consumers EV's are cars, and as with refuelling conventional cars the question of convenience is more likely to dictate charging habits than anything else. They are not yet, as popularised by some enthusiasts and incorporated into the scope of the ESB paper, "batteries on wheels". Whilst not precluding future vehicle to grid (V2G) potential, the focus at this stage therefore should be on EV charging only, potentially to absorb solar during daylight hours, along with a focus on appropriate standards. The role of EV's as grid storage is a largely theoretical construct at present, and only applicable where the EV charger has V2G export capability in any case.

It is unclear to the AEC why the energy policy spotlight is so focussed on EV's as appliances. Apart from a framework to help flatten any charging demand created, the focus at this early stage seems disproportionate. It is disproportionate given that more predictable appliances such as air conditioners and hot water, and given the prospect of electrification, heating and other new loads could provide more reliable benefits at lower costs if enabled for demand response and interoperability.

Any questions about this submission should be addressed to David Markham by email to david.markham@energycouncil.com.au or by telephone on (03) 9205 3107.

Yours sincerely,

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