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Australia

Mark Feather
General Manager, Strategic Energy Policy and Energy Systems Innovation
Australian Energy Regulator

27/05/2022

RE: AER Retailer authorisation and exemption review: Issues Paper – Tesla submission

Dear Mark,

Tesla Motors Australia, Pty Ltd (Tesla) welcomes the opportunity to provide a submission to the Australian Energy Regulator's (AER) Retailer authorisation and exemption review issues paper (the Issue Paper).

Tesla's mission is to accelerate the transition to sustainable energy. Tesla is the world's largest supplier of energy storage and electric vehicles (EVs) and one of the largest aggregators of DER in Australia, with advanced software capabilities. We partner with leading energy retailers, renewable developers and networks, and invest across the entire supply chain, reducing electricity costs and supporting reliability outcomes at both a system and household level. This has been directly demonstrated by our Virtual Power Plant (VPP) offerings, including the SA VPP and Tesla Energy Plan. Tesla is also uniquely positioned with a rapidly expanding EV fleet in Australia, complemented by hundreds of supercharging stations across the country. Optimising these products at both customer and fleet level offers additional opportunity to create a valuable flexible energy service – minimising future network strain in a way that provides system-wide benefit to all consumers.

Going forward, DER, VPPs, EVs and flexible loads are set to scale rapidly, integrating with the grid at all levels to become an increasingly critical component of Australia's energy mix. As such, it is essential that new reforms and requirements do not directly, or inadvertently, disincentivise the uptake of these innovative products and services.

Specific to the Issues Paper, Tesla recommends the AER:

1. Recognises the need to incentivise and accelerate the uptake of DER, VPPs and EVs to ensure customer benefits are realised system-wide
2. Avoids introducing costly regulatory burden (e.g. explore whether appropriate protections already exist under the NECF and ACL before immediately expand regulatory scope), noting purchasers of DER, EVs etc and participants of VPP plans are not equivalent to vulnerable consumers on standard electricity arrangements and do not require a duplication of consumer protection requirements
3. Considers a default position for DER services (including VPPs, EV charging, and community batteries) to fall into the category of 'registered exemptions' backed by a clear industry code (e.g. an updated 'Voluntary NETCC')
4. Ensures this review fits within a holistic DER governance framework, notes the ongoing enhancements for consumer data right and new DER technical standards, and aligns with objectives of a detailed DER Roadmap

Further detail supporting our positions is provided in the response that follows.

Sincerely,
Tesla Energy Policy Team
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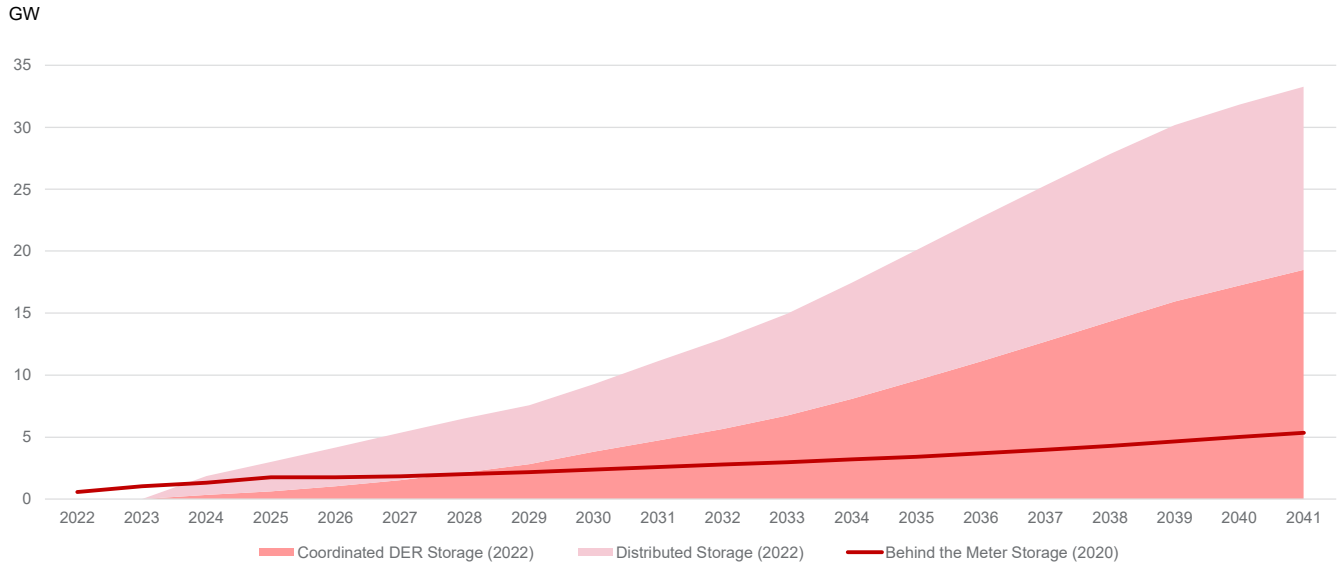
1. The transition to a 100% renewable energy system is accelerating – distributed assets are a key enabler

AEMO's draft 2022 Integrated System Plan (ISP) remains the most credible set of forecasts for Australia's future electricity system, and relative to AEMO's own 2020 ISP, highlights an increasingly critical role for storage and DER in particular. It is clear from the over 2x multiple in NEM storage deployments (relative to AEMO's 2020 ISP Step Change results for 2040) that the role of all forms of storage across all durations is becoming increasingly critical, ultimately reaching 60GW of storage capacity by 2050. This is particularly noticeably in the explosion of behind the meter assets (both coordinated and distributed), which AEMO forecast to 6x between now and 2040 (relative to 2020 ISP figures):

Figure 1: Behind the meter deployments forecasts have expanded and accelerated relative to 2020 ISP



These projections for DER are a welcome vision of the future, and if achieved would underpin a lower cost, more sustainable, more equitable NEM. For example, we note the AER forecasts new DER and flexible technologies will give rise to total system savings in the order of ~$6.3bn over the next 20 years. It is important to recognise these savings will accrue not just to owners and operators of DER infrastructure, but, as the AER notes in the Issues Paper: *"if efficiently integrated into the NEM, even customers without DER and flexible demand will benefit from lower electricity system costs"*. We recommend it is within this lens that the retailer authorisation and exemption review is progressed.

As the collective of market bodies has also now recognised (AER, AEMO, AEMC, ESB), significant market and policy reforms are still required to support this outcome, many of which are at various stages of design, consultation or implementation – including establishing a clear governance framework for technical standards, developing and implementing dynamic network tariffs that recognise and reward the value of DER and VPPs (including smart charging electric vehicles), and navigating the interplay with existing retail frameworks to ensure appropriate customer protections are upheld.

Tesla remains committed to supporting all reforms underway that are in support of accelerating the uptake of DER, VPPs and EVs to ensure their integration is streamlined, efficient, and in the interest of all consumers.

2. Striking the right balance

Tesla supports the AER's summary of the trade-off at play here, acknowledging *"the ESB advice highlighted the review should strike 'the right balance between consumer protections and encouraging innovation in the market'"* whilst noting that currently *"consumers are not encouraged to take up new products and services"*.

As highlighted in the section above, there is a strong justification to address this imbalance by minimising cost, complexity, regulatory and administrative burden, and maximising incentives, rewards, and reliability of supply to create long-term system wide consumer benefits through encouraging the uptake of DER and other new services.

A key feature and underlying principle of all DER reform is that orchestrated, controllable, 'active' DER is better for the electricity network than passive DER. Orchestrated DER can be used to provide valuable market and network services (e.g. frequency control ancillary services, fast frequency response, inertia, voltage support, peak demand reduction and a variety of other new and emerging services). Orchestrated DER can also be optimised to respond dynamically to network and market signals to ensure that system operations are supported.
The ability for the industry to make the shift from passive to active DER is dependent on customers being incentivised to hand over control of 'their' DER; and on operators, aggregators, and service providers investing in the engineering development for products, platforms and optimisation software, as well as understanding the associated regulatory and legal compliance burden from providing these services. If these upfront costs and burdens outweigh the incentives, and the customer has a choice in passive (or no) DER as an alternative, then the DER industry will self-select a focus on (at best) passive DER, which would be a perverse long-term outcome.

Tesla also support the views of other non-traditional, independent DER providers that have pointed out that competitive neutrality cuts both ways – i.e. imposing a high regulatory burden of retail authorisation on smaller players has an asymmetric impact on them relative to large gentailers that have much larger pools of legal and compliance resources to support ongoing reporting and monitoring requirements as required under the NECF.

Therefore, the AER needs to be clear about what the NECF is trying to achieve, and what practical customer risks it is seeking to avoid by expanding the scope to adjacent 'non-essential' DER services and products. It is important to remember that the policy rationale behind the creation of the NECF was that the essential nature of energy supply required additional protections beyond those afforded by general consumer protection law. It is not clear to Tesla that this rationale holds for DER services – e.g. whether any of the concerns raised over embedded networks are relevant to VPPs. The potential consumer harms (e.g. lack of competition, higher prices, supply issues, lack of payment assistance, or risk to life support customers) are either irrelevant, non-existent, or covered by the licenced electricity retail plans that complement, or offer direct competition to the VPP arrangements customers have voluntarily entered.

Further, due to increasing competition in the sector, industry places great value on social licence to operate, trust and reputation with customers - mismanagement or poor treatment of a small proportion of customers can have disproportionately negative consequences on future business - undermining the scale that aggregators require to integrate into the market and provide energy and ancillary services. There is an inherent incentive (both commercially and reputationally) to keep customer's happy ('do no harm') and ensure the service or product remains online.

Additional views on the risk management of existing DER services (VPPs, community storage, EV charging) are included below, to highlight the layers of customer protections and some potential trade-offs involved in introducing additional ones under the scope of NECF.

VPPs are an innovative **opt-in** service for customers

VPP customers can be considered akin to 'sophisticated investors' (in the financial market sense), in that they have actively procured solar, a battery and/or other DER, and have self-nominated into a VPP program based on its commercial advantages relative to 'vanilla' energy retail plans. Consumers on VPP plans are not equivalent to vulnerable consumers on standard electricity plans seeking essential power supply to their passive appliances (lighting, heating, cooling) and therefore it would be an oversimplification to apply the same level of consumer protection requirements (and associated regulatory burden). For customers of 'pure-play' VPP providers, they would notably continue to have full protection under ACL. However, in practice, many of the VPP arrangements will still be underpinned by a 'traditional' retailer (e.g. the Tesla Energy Plan in partnership with Energy Locals), with that retailer required to hold full retailer authorisation and ensure adherence to the NECF. This combination approach will be further embedded through the Flexible Trading Arrangements rule change.

EV charging is **not** the same as being a utility or energy provider

We note that in the current view of the AEMC and the AER, organisations selling energy for EV charging do not need to be licenced retailers or apply for an exemption – because the vehicle is not a premises[1,2].

We support continuation of this principle. The AER must recognise the need to de-couple electricity supply to the premise (within NECF scope) from other 'non-essential' services such as EV charging - which has optionality to be at home, work, public charging stations or other commercial properties - and which may be offered as a bundled incentive - but does not preclude customers seeking alternative competitive offers for electricity supply if these incentives fall away or are under-delivered (i.e. in the theoretical edge-case outlined in Box 3 on pg 34). We further note that providers of these services always remain at risk of destroying customer trust and social licence and face an exodus of customers if they do not quickly resolve any perceived or real issues with their offerings.

We also note that precedents exist in jurisdictions overseas, most notably USA, where suppliers, owners or operators of EV charging stations remain exempt from being treated with equivalence to an electricity retailer, in order to support EV uptake and avoid unnecessary regulatory burden when it is not required. For example, almost all states in the US have now reached the same conclusion to exempt EV charging companies from requiring retail authorisation or being treated equivalent to a utility (with associated regulations).

See a selection of 3 statute examples below:

Arizona	Docket RU-00000A-18-0284. Decision No. 77289	"We find the service engaged by companies to charge batteries for electric vehicles does not qualify electric charging providers as public service corporations under the Arizona Constitution."
California	AB 631 and PUC Code 216(i)	"The ownership, control, operation, or management of a facility that supplies electricity to the public only for use to charge light duty plug-in electric vehicles does not make the corporation or person a public utility within the meaning of this section solely because of that ownership, control, operation, or management. For purposes of this subdivision, "light duty plug-in electric vehicles" includes light duty battery electric and plug-in hybrid electric vehicles."
Connecticut	HB 5510 (2016) and Section 16-1 of Gen Statutes	(c) An owner of an electric vehicle charging station, as defined in section 16-19f, shall not be deemed to be a utility, public utility or public service company solely by virtue of the fact that such owner is an owner of an electric vehicle charging station.

[1] AEMC: see pg 191: www.aemc.gov.au/sites/default/files/documents/2020_retail_energy_competition_review_-_final_report.pdf
[2] AER: see footnote 41, pg52: www.aer.gov.au/system/files/AER%20electricity%20NSP%20Registration%20Exemption%20Guideline%20-%20Version%206%20-%201%20March%202018.pdf

Community batteries already interplay with existing frameworks

The commercial model for community battery systems is such that to be customer facing, they must combine with retail plans (which would presumably fall within NECF scope) and/or integrate into network business models (as non-customer facing assets) and as such would not directly supply consumer premises with energy as defined in the Retail Rules. In those instances, we consider ACL more than sufficient in ensuring consumer protections are maintained and upheld.

While the potential for bad actors or harmful practice may remain, we suggest that on balance, the rewards and benefits (over $6bn worth) of enabling a thriving DER ecosystem, removing barriers to community batteries, integrating EVs at scale, and supporting the creation of competitive VPP markets and services far outweighs those risks. Going forward, there are several AEMC and ESB reviews that will supplement ACL with DER governance, consumer data right, and improved product and service standards - again reinforcing the consumer benefits and minimising potential for harm. In addition, at the individual customer level, risk mitigations and avenues for remedy already exist and are in place, to which Tesla would still support strengthening coordination and consumer access via a broad based industry code.

3. NECF exempt

Instead of detailed, complex, and rigid rules that attempt to cover off every eventuality or pre-empt the emergence of new products and services, we support the AER following principles-based rule making to strike the right balance - utilising a set of broad principles through voluntary codes rather than detailed, prescriptive and mandatory rules.

Tesla recommends the current NECF is not expanded in scope, but instead is updated to ensure that by default all DER services (including VPPs, EV charging, and community batteries etc.) fall into the category of 'registered exemptions' and are encouraged to support a targeted industry code. For example, we suggest industry is invited to work together on refining and updating the 'Voluntary New Energy Tech Consumer Code' (NETCC) to ensure it is a fit for purpose voluntary code of conduct for all DER providers (VPPs, EVs, storage etc), not just solar PV providers.

4. Good DER governance and an industry supported DER Roadmap is still vital

As the uptake of DER continues at pace, and with more households installing battery storage and EVs, the regulatory landscape will either become outdated, or continue to grow in complexity as market bodies introduce more disparate requirements, or jump to burdensome risk management in the absence of clear and coordinated governance. Tesla advocates for a third option – ensure a principles based pathway for co-ordinated DER reform in the NEM, with a key focus on supporting the increased penetration of optimised DER, VPPs and EVs via clear governance frameworks, new DER technical standards, and an industry-supported Roadmap.

As part of the ESB reforms, Tesla continues to recommend a detailed “Roles and Responsibilities Review” of the DER Industry. This should focus on both existing DER standards, and standards that are currently under development or will be needed in the future. In addition, Tesla supports a detailed DER Roadmap that highlights how all DER reforms will be developed and implemented and what the ‘end-goal’ is (e.g. achieving AEMO’s grand ISP vision). Provided the above elements are progressed, we see no need for expanding the role of NECF to cover DER products and services – as this would simply introduce additional upfront, costly regulatory burden and would stymie the uptake of DER, slow the innovation of new energy services such as VPP and integrated smart EV charging plans, and create unintended harms on consumers over the long term by thwarting market competition and stalling any potential savings consumers may have otherwise received through new energy products and services.