Tesla Motors Australia, Pty. Ltd.

546 Gardeners Road
Alexandria NSW 2015
Australia

07 November 2024

Mr Andrew Lewis

Executive General Manager
Consumer, Markets and Analytics
Australian Energy Market Commission

Dear Andrew,

RE: Consultation Paper – Real-time data for consumers

Tesla Motors Australia Pty Ltd (Tesla) welcomes the opportunity to provide the Australian Energy Market Commission (AEMC) with a response to the Consultation Paper on real-time data for consumers. We are supportive of the work being done by the AEMC that consumers have better access and insights to data that informs their energy use.

Tesla's global mission is to accelerate the world's transition to sustainable energy. As the world's largest vertically integrated renewable energy company, Tesla has a diverse product portfolio of electric vehicles (EVs), solar and battery storage products that cover residential, community and utility scale applications. In Australia, Tesla is leading residential scale and virtual power plant (VPP) developments and playing a key role in the transition to higher penetrations of renewable energy.

As a leader in sustainable energy solutions, Tesla is committed to contributing to the development of a robust, efficient, and consumer-focused electricity market that supports the widespread integration of consumer energy resources (CER). 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 VPP offerings, including the SA VPP and the Tesla Energy Plan. Tesla is also uniquely positioned with a rapidly expanding EV fleet in Australia, complemented by our 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 benefits to all consumers.

Going forward, CER, 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.[1] As such, it is essential that new reforms do not directly, or inadvertently, disincentivise the uptake of these innovative products and services.

[1] https://aemo.com.au/en/energy-systems/major-publications/integrated-system-plan-isp/2024-integrated-system-plan-isp

We note that an overarching mandate of the rule change proposal drafted by Energy Consumers Australia was to provide customers with 'unfettered access to energy data'. Yet the delivery of plain real-time data to customers may not in of itself provide value. It has limited ability to help the average customer understand their energy use, make informed choices, or shift their consumption. Simply having the data would not lead to a greater understanding of energy use and required behavioural changes that would result in substantial impact. Support programs and education will be essential to ensure customers can understand and act on what information is being provided to them.

A key aspect of this reform process will be to understand the different use cases where customers may use real time data. This will aid in ensuring we build an ecosystem that delivers tangible benefits in comparison to the potential high costs of delivery. These costs are due to the increasingly more complicated rate structures, the measurement of flexible loads vs inflexible loads through the introduction of secondary settlement points and the increasing number of consumer energy resources located at the customer's premises. A key part of the use case analysis and associated cost benefit analysis will be to remain technology neutral to enable the market to choose the least cost technology for supply or the technology that is most valued by customers.

Kind regards,

Emily Gadaleta
Senior Energy Policy Advisor

Feedback on key focus areas

1. Definition of real-time data and real-time data use cases

As the paper introduces under section 1, Australians are adopting CER at an exponential rate. The AEMC acknowledges that people are adopting various resources, as well as using CER in the form of 'smart devices' and controlling them to manage energy consumption through behaviours, timers, and dedicated applications. These are also paired with innovative services that uses data to help lower bills.

The next section highlights that smart meter technology underpins the progress of CER. However, the adoption of CER requires a smart meter, and the current smart meter rule change would further be likely to achieve full penetration by 2030. Then it begs the question of who are the primary beneficiaries of this rule change? Is this rule change targeting customers who have CER and possibly already receiving energy insights to achieve consistency in how that data is delivered to them? Is it targeting the customers who may get a smart meter installed in the lead up to 2030 and do not have any CER or other smart technology, so therefore have a lack of access or visibility of their data? The solutions to just these two of many customer cohorts will look different. Work is required to build out customer use cases to understand what the mandate is looking to deliver.

Following this, the definition of real-time data could be outcomes focussed and better ascertained by understanding where the industry-wide uplift might be required. Focus on customer use cases will also aid in understanding what will be required through a potential mandate or incentivised uptake, including how we inform, empower, and protect consumers individually and collectively.

2. Data sharing arrangements should be technology neutral

Tesla encourages the AEMC that access to data should be fit for purpose and satisfy the needs of multiple use cases at efficient costs to consumers. Tesla is already delivering products that co-optimise of the needs of the grid, with the needs of the customer and informing them on how we work with them to achieve this. We leverage telemetry and command/control of edge devices coupled with expert-level guidance to build distributed solutions. Any new provisions should consider, as the AEMC identified, that consumers have different needs and preferences, meaning that some pathways may be beneficial for consumers while other may not. Data delivery arrangements should be designed to consider the full range of potential solutions. They should not be targeted at a particular technology or be designed with a particular set of technologies in mind.

Technologies are changing rapidly and, to the extent possible, a change in technology should not require a change in regulatory arrangements. The design of this rule change should enable the market to choose technology for supply for cost purposes or for the technology that is most valued by customers. Technology neutrality is important in that it enables an efficient mix of market responses in the short term and an optimum mix of investment in the longer term, minimising cost of supply over time.

3. Cost benefit analysis required

While the proposal introduces an option to prohibit directly charging customers for delivery of real-time data, the cost will still be borne by all customers through increased expenditure to build out required infrastructure. Removing the ability for a direct charge may well remain an appropriate consumer protection, however, the AEMC should undertake a comprehensive cost benefit analysis of options as the supporting infrastructure will require significant investment across multiple data processing, storage, and delivery methods.

Importantly, delivery of energy data will become increasingly more complicated and costly when incorporating the increasing uptake of two-way energy flows across all customer cohorts. This will include incorporating different rate structures, assets located at the customers premises, as well as the introduction of secondary settlement points and measurement of flexible and inflexible loads through additional metering types.

4. Interoperability

Tesla understands that the Department of Climate Change, Energy, the Environment and Water and the CER Roadmap's Taskforce Reference Group is looking into interoperability for behind the meter and the ecosystem uplift that could be required. There is a clear need for national consistency, and we recommend that the AEMC work together with this workstream to ensure consistency in adopted frameworks. It will be vital that policies, standards, and incentives are not drawn up in isolation leading to potential narrowing of perspectives and solutions. Broader engagement with industry, interest groups and consumer advocates will be essential.

While the introduction of standards will aid in the integration of CER, Tesla emphasises that CER-management functions can not be considered without additional work on control prioritisations framework to ensure clear and expected outcomes of energy management controls within a customer's premises. We are particularly concerned with increasing support for market integration functions for CER using CSIP-Aus trader capabilities currently under development as part of version 1.3. Market and trader services are ultimately a commercial decision, with development driven primarily by aggregator consideration of the market value of services. Under the 'Unlocking CER benefits through flexible trading' rule change, the AEMC decided that for small customers, only a single financially responsible market participant should remain responsible for the whole site. This perspective should extend to ensuring that there is one party responsible for the controls within a customer's home, ensuring those assets respond how the customer has instructed, or set their preferences. It is essential that the customer retain choice and control over their energy and assets alongside the development of consistent standards on data sharing.

We understand that this movement is more about the integration of market participants with products in providing the services, rather than in providing the trader functions themselves, however it's not clear that this is a legitimate concern. It is a fine line in developing a framework for the integration for these services, and in creating a technical specification in providing these services themselves. This would

run the risk of conflicting with existing AEMO and AEMC dictated market requirements, and there is no need for market service specifications to sit in any framework outside of the existing requirements.

5. Education and Energy Made Easy

Effective consumer education and engagement are critical to the success of any market reform, especially during the significant transformation the energy sector is currently moving through. Tesla recommends that the AEMC consider recommending additional initiatives to raise consumer awareness about the benefits of CER, as well as the available pricing options and incentives. This could include collaboration with industry stakeholders to develop clear, accessible information and tools that empower consumers to make informed decisions about their energy use.

A way in which customers receive information is through utilising trusted and easy to access tools, such as Energy Made Easy. We note that in the latest federal budget the government committed $16.6 million over four years from 2024-25 for the Australian Energy Regulator to help households get onto a better plan by sustaining regulatory activities, upgrading data and digital systems to reduce regulatory burden and cost, and delivering better outcomes for consumers through the Energy Made Easy website.[2]

Currently, Energy Made Easy is not compatible with displaying innovative products and services, nor is it designed to consider flexible energy offers. This makes it extremely difficult when exploring the roll out of new products to be able to communicate them to customers in a clear and meaningful way. This rule change should also consider the role for government in how to leverage the delivery of real-time data for insights in their services.

This is a window of opportunity for the AEMC, together with other market bodies, jurisdictional governments, and industry to collaborate to ensure we are bringing the end customer along the energy transition journey as move towards mass adoption of new energy technologies. This will be critical in the success of this piece of work as there is a real risk if the process confuses, disengages, or excludes consumers.

[2] https://budget.gov.au/content/bp2/download/bp2_2024-25.pdf