Tesla Motors Australia, Pty. Ltd.

546 Gardeners Road
Alexandria NSW 2015
Australia

20 December 2024

Mr Andrew Lewis

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

Dear Andrew,

RE: Consultation Paper – Electricity Pricing for a consumer driven future

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 your pricing review, 'Electricity pricing for a consumer-driven future'. We support the AEMC's determination for this review to be broad, ambitious, and future-focused.

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. We make products that displace fossil fuel alternatives by designing and manufacturing a fully integrated ecosystem for energy and transportation. With regular software updates and continued product development, Tesla energy products get better over time.

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). Tesla is also uniquely positioned with a rapidly expanding EV fleet in Australia, complemented by our supercharger stations across the country. Optimising these products at both the 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.

Tesla is committed to regulatory reform that does not overreach and stifle innovation but rather enables a range of use cases that will benefit consumers – including those with and without CER. We partner with leading energy retailers, renewable developers, and networks, to reduce 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, both in Australia through the SA VPP and overseas through Tesla Electric in Texas.

We drew from our deep expertise in energy markets to develop Tesla Electric, a retail electricity provider that allows customers to reduce utility bills while supporting their community with clean energy. Currently Tesla Electric also allows customers to easily monitor what rates they will pay when

they consume electricity and when they export power to the grid. Offers are available to both existing Tesla product owners and new customers. More detail can be found in the attached Appendix.

Building off Tesla's two previous master plans, in our Master Plan Part 3 we outline that the sustainable energy economy will have an abundance of inexpensive energy for consumers to able to use during periods of excess, which will impact how and when energy is used. But as we all know significant investment will be required to achieve the end state.

In Australia, customers are already making their own investments to capture the benefits of the energy transition for their own households and their community. Disillusionment has been bred when products and services that customers have invested in are not valued in the same way by the market, or the rules of the game change, directly affecting the value of that asset to the customer. These customers have invested in their own assets for financial and grid independence reasons, as well as helping their community and broader decarbonisation goals. However, the prevailing narrative by the industry is often to view CER as something to manage, rather than an opportunity to leverage.

As an industry we must not stifle consumer ambition by transferring misplaced risk allocation to those making the investments themselves. As energy services become more dynamic, we must consider how customers engage with the new products. Much like in the financial industry, 'sophisticated investors' are able to access different financial products once assessed as having the ability to weigh the value and risks of an investment. Important to note that this analogy is not intended to be an unqualified suggestion to transfer this concept into the energy industry, as for one, it does not consider that electricity is an essential service. However, it does provide a tool to understand how there could be different products and services for different types of consumers, with appropriate guard rails for risk allocation.

As a member of the Stakeholder Reference Group, Tesla looks forward to working with the AEMC and other stakeholders as we construct a fit for purpose regulatory regime for the future. We welcome any future 1:1 meetings to discuss our vision for the future.

Kind regards,

Emily Gadaleta
Senior Energy Policy Advisor

Barriers to future products and services beyond 2035

A large part of the energy transition will be won through developing a common narrative on our future direction. Australia knows all too well how political conflicts in energy policy can stifle investment, entrench disillusionment, and delay ambition. While work is underway and considerable progress has been made through the national CER Roadmap, the need for a public facing common language that is easy for the end consumer to understand is imperative on continuing to progress. For example, should VPPs even be called VPPs to consumers?

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.[1]

A lot of regulatory reform has been focussed on industry delivering information, 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. 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 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.

Distribution networks

The AER in the State of the Energy Market Report for 2024 noted that one of the AER's key objectives is to deliver efficient regulation of monopoly electricity and gas infrastructure while incentivising networks to become platforms for energy services. If the future is to be built on a distributed system, distribution network service providers (DNSPs) and the role they play must be appropriately analysed within this review. In alignment with the CEC, the role of DNSPs should be adequately assessed within this review. Network pricing arrangements must be designed to promote efficient planning and

1 https://budget.gov.au/content/bp2/download/bp2_2024-25.pdf

investment in self-consumption and export services, while also addressing equity concerns related to the potential cross-subsidisation between CER customers and non-CER customers.

However, ring-fencing provisions should not be continued to be weakened with the view that traditional grids are now open systems doing more than delivering reliable and secure energy. Effective ring-fencing arrangements are an important mechanism for promoting increased choice of service providers for consumers and more competitive outcomes in markets for electricity services without losing the cost efficiencies of natural monopolies. Ring-fencing should not be regarded as an inherent barrier to innovation or the emerging role of electricity networks as platforms for new energy services. The aim of ring-fencing is to prevent network service providers from using revenue from regulated services to cross-subsidise their unregulated products or services, and/or discriminate in favour of affiliated businesses. Before a network service provider offers services in a competitive market, robust ring-fencing arrangements must be in place to ensure it competes fairly with other service providers.

An environment with high levels of CER could mean that DNSPs need to alter aspects of their operation – from transporting electricity one-way to being platforms for multiple services, facilitating electricity flows in multiple directions and enabling efficient access to markets for CER so that they can provide the greatest benefits to the system as a whole. However, we highlight throughout this review, DNSPs should not move to be involved in the markets they are facilitating access to themselves. Tesla recommends that a review of ringfencing guidelines is imperative as several governments have committed to permitting or advocating for class waivers without due consideration to the potential negative market and customer impacts.

Network service providers manage demand on their networks to reduce, delay or avoid the need to install or upgrade network assets. Managing demand can minimise network charges, improve the reliability of supply and reduce wholesale electricity costs. An additional consideration for the AEMC to consider will be the effectiveness of different incentive schemes. While the AER recently conducted a review of incentive schemes, they decided not to review the Demand Management Innovation Allowance Mechanism or the Demand Management Innovation Scheme. As pricing and products become more dynamic in nature, these schemes will be explicitly relevant in the delivery of future products and services post 2035.

“Two other elements of our service standards incentives are the Demand Management Incentive Scheme (DMIS) and Demand Management Innovation Allowance (DMIA). These are relatively recent initiatives (introduced in 2017) and were considered as part of a STPIS review in 2018. To date the schemes have incentivised several projects and we are proposing to extend application of the schemes to export services. We are not proposing to further review the schemes at this point.”[2]

Additionally, the fixed charge is not based on how much energy you use but is the cost of supplying energy to your property. It is often called the 'daily supply charge'. New requirements like dynamic

[2] https://www.aer.gov.au/system/files/AER%20-%20Final%20decision%20-%20Review%20of%20incentive%20schemes%20for%20networks%20-%2028%20April%202023_1.pdf

imports or generation should not be included in any network connection agreement without a thorough cost benefit analysis. We support the AERs approach of starting with flexible exports before imports are considered, but CSIP-Aus already creates the mechanism to include flexible exports and allow networks to include it within their dynamic connection standard. The fact that this can be done without any cost-benefit analysis on the value that a network receives from, for instance, dynamically reducing a battery charge rate, demonstrates some very clear and worrying gaps in the current regulatory framework on flexible exports. When a customer is paying for a daily supply charge that can then be limited, is something to be examined.

Energy Supply

A second barrier that will play an increasingly disruptive role in the lead up to 2035 is the current lack of architecture to appropriately manage the risks inherent with home energy management system (HEMs) products. As the smart home industry is rapidly emerging, it faces security risks that cannot be neglected. There is work underway through the recent Standards Australia and DCCEEW Roadmap for CER cybersecurity report and the AEMC Cyber Security Review for AEMO's role. However, there is a growing need to introduce consumer protections and to introduce a control architecture on which actor is responsible for what role to ensure consumers are not left worse off. This is especially the case as value grows from energy services, there is a corresponding growing risk of 'cowboy' HEMs providers who may be leaving the door open to bad actors or simply delivering poor performance against reported benefits. Any new regulatory regime should look to this current gap to address risks for consumer detriment.

Appendix: The future should look like the future

Tesla is a retail electricity provider in Texas that helps customers power their home, charge their electric vehicle, and support the grid with low-cost, 100% locally generated sustainable electricity.

Through Tesla Electric in Texas we have 2 offers available. We have both a fixed and a dynamic offer. Our mix of plans give customers the option to let Tesla manage and adjust their energy system for them as the market changes, or for customers to control their energy flow themselves.

Tesla Electric Fixed Offer

Tesla Electric Fixed allows customers to power their home at an affordable rate. With Tesla Electric Fixed, customers:

- Pay a flat energy rate for energy used to power their home during Standard Hours (4 AM to 12 AM)
- Pay a lower energy rate for energy used to power their home during ‘Wind Hours’ (12 AM to 4 AM)

If a customer owns a Tesla vehicle, they can enjoy unlimited overnight charging at home for a low fixed monthly fee. To ensure that they receive this benefit, their vehicle is automatically scheduled to charge overnight when a customer signs up for Tesla Electric. Additionally, they can charge their vehicle throughout the day at a low, flat rate. With Tesla Electric Fixed, customers:

- Pay a low fixed monthly fee for vehicle charging sessions between 12 AM and 6 AM
- Pay a flat energy rate for vehicle charging sessions between 6 AM and 12 AM

If a customer owns an electric vehicle made by another manufacturer, they can still charge their vehicle at a discounted rate during ‘Wind Hours’ between 12 AM and 4 AM.

Paired with a Powerwall, Tesla Electric Fixed allows a customer to earn credits by participating in the Tesla VPP and discharging energy back to the grid. Additionally, Tesla will configure their device to specific settings, giving them more certainty of how much your Powerwall is earning. For a customer who owns a Powerwall, they will:

- Earn a fixed VPP credit of $400/year (USD) per Powerwall
- Earn a competitive fixed rate for exporting stored Powerwall energy

If a customer has their own solar system, Tesla Electric Fixed allows them to earn credits by selling excess solar back to the grid. With Tesla Electric, they will earn a flat sellback rate of 5 ¢/kWh (USD) for excess solar.

Tesla Electric Dynamic Offer

Tesla Electric Dynamic offers more flexibility for homeowners where they can pay a competitive energy rate while being in full control of their device settings. If they own a Powerwall, they can support their community with clean energy while earning credits back on their electric bill. Additionally, if they own a Tesla vehicle, they can enjoy unlimited home charging when they join the program.

Once a customer has started their service with Tesla Electric Dynamic, Tesla measures the energy that they use to charge a vehicle and power their home. This month-to-month plan uses an energy rate that varies depending on the time of day. With Tesla Electric Dynamic, a customer will:

- Pay a standard rate for energy used to power your home during on-peak times (4 PM to 7 PM)
- Pay a lower rate for energy used to power your home during off-peak times (7 PM to 4 PM)

If a customer owns a Tesla vehicle they enjoy unlimited charging as part of Tesla Electric Dynamic. With unlimited home charging, a customer will:

- Pay a low monthly fixed fee for unlimited vehicle charging between midnight and 6 AM
- Pay your applicable energy rate for vehicle charging between 6 AM and midnight

Paired with Powerwall, Tesla Electric Dynamic allows customers to optimize the value of their Powerwall system. With full control of their system configurations, customers can monitor real-time market prices and discharge energy to the grid when rates are high. They can also pair their Powerwall with the Tesla Electric VPP with ERCOT to earn additional credit. With Tesla Electric Dynamic and a Powerwall system, customers:

- Earn 90% of real-time market rate for stored Powerwall energy
- Earn a fixed VPP credit of $10/month (USD) per Powerwall

In 2023, Powerwall customers earned an average of 17¢/kWh (USD) for energy exported to the grid.

If a customer owns a solar system, Tesla Electric Dynamic allows them to sell excess solar at 90% of the real-time energy market price. There is no set sellback rate, and the rate fluctuates every 15 minutes based on the current price of energy in the ERCOT market.

The Tesla app offers an all-in-one experience for customers to manage their energy products from anywhere and at any time. A customer can view how energy flows to and from their home in real time. The app displays a power flow screen showing how their home consumes or produces energy, and the mix between their own energy sources and the grid.

We provide an overview of the Tesla App through Tesla Tutorials here. We also have specific information on specific features such as Energy Data and Storm Watch to help with educating customers.