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RE: Electricity System and Market Rules – DER – Roles and Technical Requirements

Tesla welcomes the opportunity to provide feedback on Energy Policy WA's (EPWA) proposed Electricity System and Market Rules for Distributed Energy Resources (DER) (Tranche 9). This tranche represents a critical step in operationalising the vision that has been developed through several years of careful policy work, including the DER Roadmap, the DER Roles and Responsibilities work program, the Electricity Industry Amendment (Distributed Energy Resources) Act 2024 (the DER Act), and EPWA's Statement on Interoperability. It is clear that EPWA intends this tranche to establish the foundational architecture for a future system in which DER plays a central role in affordability, reliability and decarbonisation in the Southwest Interconnected System (SWIS). Tesla supports that ambition.

Tesla has structured this submission through the lens of the State Electricity Objective (SEO), as required by EPWA. Our assessment considers not only whether the Rules reflect EPWA's policy intent today, but whether they establish the durable, future-proofed architecture required for long-term consumer benefit. DER uptake is accelerating rapidly across Australia, including in WA, and customer expectations are evolving at the same pace. The value streams available to customers and the system will continue to diversify. Any framework introduced today must therefore be sufficiently flexible to allow for multi-layered innovation, dynamic participation models, and the orderly expansion of new markets over time.

Tesla supports EPWA's leadership in building a more integrated, customer-centred DER system. Our objective in this submission is not to challenge EPWA's strategic direction but to highlight where the drafting, in its current form, may inadvertently create rigidity or misalignment with the very policy principles EPWA has articulated. Where we identify risks, we have proposed proportionate refinements that preserve EPWA's intent while strengthening the framework's ability to evolve, adapt and protect customer value. We look forward to continuing to work with EPWA to progress flexibility to continue to unlock customer value in WA.

Sincerely,

Emily Gadaleta
Senior Energy Policy Advisor

Interoperability: Getting the Architecture Right for Scale

A central theme of this tranche is interoperability. EPWA's Statement on Interoperability sets out a clear vision: DER systems in the SWIS should meet a consistent baseline capability aligned with CSIP-Aus. This alignment is intended to ensure safe, secure operation and to allow consumers to participate in future programs, such as dynamic export arrangements, VPPs and alternative services, without unnecessary friction.

Tesla supports this vision and has invested heavily in CSIP-Aus since its inception. Our teams have contributed to the specification, piloted its functionality across multiple jurisdictions, and participated in national technical working groups to improve, secure and expand the standard. Tesla understands the importance of CSIP-Aus not only as a technical protocol, but as a foundational building block that will support national interoperability and future CER markets.

However, the way interoperability is being interpreted and applied in the current drafting creates a meaningful risk. The consultation materials, together with the WA Government's public Statement on Interoperability, appear at times to conflate two very different concepts under the umbrella of "interoperability." This conflation is not a minor definitional issue; it has significant implications for customers, OEMs, aggregators, retailers, DNSPs, and the long-term scalability of WA's DER ecosystem.

The first concept is behind-the-meter interoperability. This refers to the internal coordination of devices within a customer's home, such as the battery, solar inverter, EV charger, home energy management system, and associated protection or backup logic. This is the layer at which OEMs implement sophisticated optimisation algorithms that deliver value to customers. It includes price-responsive behaviour, solar self-consumption optimisation, battery health management, forecasting, outage prioritisation and safety-critical functions. These optimisation engines differ across OEMs and are constantly refined. They define the product's performance and customer value proposition. They are not, and should not be, subject to standardisation through regulation. This would undermine competition, innovation, and the ability of OEMs to deliver differentiated experiences. Behind-the-meter optimisation is an innovation space, not a regulatory domain.

The second concept is communication-layer interoperability, the domain of CSIP-Aus. CSIP-Aus provides a standardised language for communication between external parties (DNSPs, retailers, aggregators) and OEM fleets. It ensures that event notifications, telemetry, and acknowledgements are delivered and interpreted in a predictable way across technology providers. Its purpose is to support safe system operation, reduce integration costs, and enable participation in services.

Yet, in the current WA documents, these two concepts are frequently treated as interchangeable. The Government's Statement on Interoperability suggests that interoperability requires the ability for a central entity to directly control device behaviour through a standard interface. In respectful but clear terms, this interpretation is incorrect. Interoperability requires communication consistency; it does not require behavioural uniformity. Treating a communication protocol as a behavioural standard conflates layers of the architecture that must remain distinct for the system to function efficiently.



This conflation is already manifesting in the treatment of CSIP-Aus v1.3 [BETA/DRAFT] battery extensions. These draft functions introduce site-level battery control capabilities that go significantly beyond the communication and visibility purpose CSIP-Aus was originally designed to serve. These extensions are not yet finalised, governed or tested nationally. Adopting them prematurely risks embedding a control model that overrides OEM optimisation, introduces unresolved safety interactions, and privileges one behavioural model across a diverse market. This outcome would contradict EPWA's stated principles of technology neutrality, national alignment and customer-centred innovation.

Why This Distinction Matters for WA

The distinction between behind-the-meter optimisation and communication-layer interoperability is not theoretical. It has tangible implications for customers and for the viability of WA's long-term DER framework. Synergy's current use of CSIP-Aus v1.3 [BETA/DRAFT] battery extensions in the Battery Rewards program provides a practical illustration. Tesla understands the rationale for Synergy's approach: it is the fastest route to market, allows Synergy to meet obligations quickly, and simplifies early integration.

However, the use of CSIP-Aus as a direct device control pathway shifts the standard from a communications protocol into a behavioural mechanism. This blurs the boundary between the layers of the architecture and risks hard coding a single control approach into the broader regulatory framework. If translated into regulation, this would limit WA's ability to accommodate alternative business models, diverse technologies and future innovation. It undermines the competitive optimisation layer that drives customer value and risks turning CSIP-Aus into a bottleneck rather than an enabler.

The consequence of continuing down this path is that WA could unintentionally drift toward mandating behind-the-meter interoperability. This would be unprecedented internationally and would impose significant burdens on OEMs without delivering commensurate benefit to customers or the system. It would require OEMs to redesign core optimisation behaviours and abandon differentiation. It would also embed a degree of centralised control that is not aligned with industry best practice or customer expectations. A centrally dictated, one-size-fits-all control model cannot effectively scale across millions of heterogeneous devices and would ultimately restrict innovation, reduce customer value and slow CER adoption.

Tesla is therefore proposing refinements not to alter EPWA's policy direction, but to ensure that the drafting implements the Government's own position correctly. Interoperability must operate as a minimum communication capability, not as a mechanism for prescribing behind-the-meter behaviour. The Rules should reflect this separation clearly, particularly given EPWA's commitment to national alignment and technology neutrality.

CSIP-Aus, Battery Extensions and National Alignment

Tesla supports EPWA's decision to adopt CSIP-Aus as the baseline interoperability standard. We agree that CSIP-Aus provides the most appropriate foundation for integrating DER into the SWIS. However, its role must remain aligned with national governance. The expanded site-level battery control functions in the draft CSIP v1.3 [BETA/DRAFT] battery extensions have not yet been adopted or governed nationally. They remain draft, untested and subject to refinement. Incorporating them prematurely, or treating them as mandatory baseline capability, would create divergence from the national standard and embed a control model that has not been subject to adequate consultation, verification or risk assessment.

In the WA context, this challenge is compounded by the design of the Battery Rewards program, where customers must join Synergy's VPP to receive the Government rebate. Customers in that program have explicitly opted into Synergy's control pathways; third-party aggregators and their customers have not. The Rules must therefore preserve the ability for alternative optimisation models and service offerings to coexist above the minimum interoperability layer. It is essential that WA does not inadvertently homogenise VPP participation around a single behavioural model, particularly at a time when national governance is still evolving.

EPWA has been clear that this tranche is intended to establish baseline capability rather than prescribe final operational pathways. Tesla's recommendations reflect that intention. The Rules should state that interoperability requirements relate only to CSIP-Aus communication and visibility functions that have been nationally finalised and governed. Draft or provisional functions, including battery extensions, should only be adopted following national finalisation and explicit approval by the Coordinator and appropriate implementation timeframes (i.e. typically 12 months after finalisation). This ensures WA remains aligned with the national standard, protects customer outcomes, and provides the flexibility required for future tranches to introduce more sophisticated models once the national design is settled.

WA Parent Aggregator Model

Tesla recognises that designating Synergy as the Parent Aggregator for non-contestable customers is a long-standing WA policy decision. We do not seek to reopen this issue. Instead, our focus is on ensuring the drafting faithfully reflects EPWA's own intended scope and preserves future flexibility.

The current drafting places Synergy as the exclusive aggregator and single interface for all NCESS participation by non-contestable customers. While operationally simple, this model consolidates commercial and technical discretion within a single market participant. Without appropriate guardrails, this risks limiting innovation, reducing technological neutrality and creating dependencies on Synergy's interpretation of national standards.

Our proposed refinements are deliberately narrow. They clarify that Synergy's role as Parent Aggregator is to operate the interoperability platform in a manner that preserves neutrality and supports participation by Third-Party Aggregators (TPAs) in accordance with the TPA Framework. This ensures that Synergy's

functions remain consistent with EPWA's intent and that the framework remains adaptable as new technologies and value streams emerge.

WA Third-Party Aggregation

EPWA's intent for the TPA Framework is forward-looking: to enable early-stage innovation while Synergy continues to coordinate orchestration for non-contestable customers. Tesla supports this approach and acknowledges EPWA's commitment to a light-handed regulatory posture during the market's formative years.

However, as drafted, the Rules grant Synergy broad discretion to determine which services may be offered by TPAs and how proposals are assessed. Without a structured pathway for proposal development, transparent evaluation and clear decision-making principles, early service concepts may struggle to progress, not because of policy misalignment, but due to the absence of procedural predictability.

Innovation requires both flexibility and transparency. TPAs should have confidence that proposals can be submitted, refined and assessed consistently with EPWA's objectives and the SEO. To support this, Tesla proposes that Synergy publish high-level assessment principles and apply them in a transparent, non-discriminatory manner. We also recommend that Synergy provide clear reasoning when rejecting or amending proposals and publish an annual summary of proposal outcomes and emerging themes. These steps are modest but highly effective in supporting early-stage innovation without introducing unnecessary regulatory burden. This approach complements the requirement for Synergy to publish a standard form TPA contract by July 2026 and ensures that the TPA Framework remains dynamic, adaptive and consistent with EPWA's objectives.

Tesla also recognises that Synergy's priorities over the past year have understandably centred on establishing its own VPP and successfully delivering the Government's battery rebate program. These programs required rapid mobilisation and significant internal focus, which naturally limited Synergy's capacity to explore alternative or complementary service concepts put forward by OEMs and other innovators. We do not present this as a criticism; rather, it reflects the practical reality of implementing major government initiatives at pace. As the Third-Party Aggregator Framework matures, it will be important that Synergy is supported and resourced to consider emerging value streams with the same rigour and openness that EPWA envisages for this framework. Ensuring Synergy has both the mandate and capability to meaningfully assess new proposals will help the Framework function as intended, enabling genuine innovation, supporting diverse customer offerings, and ultimately advancing the State Electricity Objective.

Smarter Solar and National Best Practice

Tesla strongly supports EPWA's Smarter Solar initiative. The reforms modernise connection arrangements, enable flexible exports and ensure customers have access to consistent minimum DER capability. The initiative aligns closely with national trends and leverages valuable lessons from interstate implementation.

In particular, South Australia's Flexible Exports program, delivered by SA Power Networks (SAPN), provides a world-leading reference model. SAPN has demonstrated that dynamic export limits can significantly increase network hosting capacity, simplify customer participation, improve installer experience, and support broader system efficiency, all while preserving strong competition in behind-the-meter optimisation and VPP service delivery.

WA's Smarter Solar program is well positioned to adopt SAPN's implementation principles, ensuring technology neutrality, customer simplicity and national alignment through CSIP-Aus. Aligning with SAPN's proven model will support rapid deployment in WA, reduce industry integration burdens, and ensure the reforms deliver their intended customer and system benefits at scale. A commitment from SAPN to have a service performance of export service levels of 95% customers can export 95% of the time as an average. This kind of customer commitment and transparency will be key in rolling out a program like smarter solar.

Overall, Tesla strongly supports the direction EPWA has taken in establishing the DER Rules and welcomes the opportunity to contribute to their refinement. The adjustments proposed in this submission are targeted, proportionate and fully aligned with EPWA's stated policy objectives. They preserve WA's light-handed regulatory posture, maintain national alignment, protect customer value and ensure the framework remains consistent with the SEO as DER participation expands. Tesla looks forward to continued collaboration as EPWA progresses future tranches of reform.

Appendix A – Drafting Refinements

Tesla proposes three categories of drafting refinements. These refinements are modest, do not revisit any of EPWA's major policy decisions, and simply ensure that the Rules are implemented in a manner consistent with EPWA's intent, national alignment, and long-term scalability.

A1. Parent Aggregator Clarification

Tesla recommends the inclusion of clarifying text after Rule 3.11B.8A to confirm that Synergy's role as Parent Aggregator is to operate the platform in a technology-neutral manner that facilitates participation by Third-Party Aggregators under the TPA Framework. This clarification ensures Synergy's functions remain consistent with EPWA's objectives and prevents unintended centralisation of technical or commercial discretion.

Insert clarification after 3.11B.8A: "Synergy's role as Parent Aggregator is to operate the interoperability platform for non-contestable customers in a manner that preserves technology neutrality and facilitates participation by Third-Party Aggregators in accordance with the Third-Party Aggregator Framework."

A2. Third-Party Aggregator Framework

Tesla proposes that the Rules expressly require Synergy to assess TPA service proposals in accordance with high-level assessment principles aligned with innovation, consumer value, system efficiency and the SEO. Synergy should publish these principles and provide clear reasoning when rejecting or materially amending proposals. We further recommend that Synergy publish an annual summary describing the types of proposals submitted, outcomes and emerging themes, within any limitations of commercial disclosure obligations. This reporting obligation maintains transparency and supports early-stage innovation without unnecessary regulatory burden.

Insert new clause 2.34C.7A: "When rejecting or requesting material amendments to a proposal submitted by a Third-Party Aggregator, Synergy must provide written reasons demonstrating how the decision was made in accordance with the published assessment principles."

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Insert new clause 2.34C.12: "Synergy must publish an annual summary describing the proposals submitted by Third-Party Aggregators, the outcomes of those proposals, and any emerging themes or barriers relevant to innovation, consumer value or system efficiency. The summary must be provided to the Coordinator and published on Synergy's website."

A3. Technical Standards / CSIP-Aus Alignment

Tesla proposes that Rule 3.25.4 be amended to clarify that interoperability requirements relate only to CSIP-Aus communication and visibility functions that have been nationally finalised and governed. Draft or provisional functions, including site-level battery control extensions in the draft CSIP v1.3 [BETA/DRAFT], should not be adopted. This preserves national alignment and avoids premature adoption of untested functions that may conflict with OEM optimisation or customer outcomes.

Replace or augment clause 3.25.4: "Interoperability requirements under this section apply only to CSIP-Aus communication and visibility functions that form part of a nationally governed and finalised CSIP-Aus version. Draft or provisional functions, including any site-level battery control extensions, are not adopted unless expressly approved by the Coordinator following national finalisation."