Tesla Motors Australia, Pty. Ltd.
546 Gardeners Rd
Alexandria NSW 2015

Ms Emily Banks
Australian Energy Market Commission
Level 15, 60 Castlereagh Street
Sydney NSW 2000

21 April 2026

Dear Emily,

RE: Tesla's Submission to the Clarity and Transparency in Security Frameworks Consultation

Tesla Motors Australia, Pty Ltd (Tesla) welcomes the opportunity to provide feedback to the ERC0424 and ERC0428 consultation, National Electricity Amendment Rules for Security framework enhancements and Clarity and transparency in security frameworks.

Tesla is a global leader in electric vehicles and clean energy products, producing a vertically integrated suite of energy solutions including Powerwall, Megapack, and Superchargers. In 2025 alone, Tesla deployed 46.7 GWh of energy storage globally, and in Australia has 8 GWh of energy storage in operation and a further 8 GWh+ contracted or under construction, the majority of which use grid-forming inverters. Grid-forming batteries support the increased penetration of variable renewable energy in the grid and can provide a multitude of grid services, including energy and FCAS arbitrage, essential system services (ESS) such as inertia and system strength, and Minimum System Load (MSL) contracts, among others.

The consultation paper outlines the extensive history of reform in the system security landscape yet similarly notes ongoing structural challenges in the NEM. In particular, Tesla sees the absence of standardised, NEM-wide service definitions, inefficient RIT-T assessment and procurement processes, and insufficient governance and transparency in the annual Transition Plan for System Security (TPSS) as the core, unresolved challenges in the current frameworks. Tesla considers it essential that the AEMO and AEC-CEC rule change requests be consolidated and progressed together. Tesla notes that the core issues to efficient ESS deployment sit across both AEMO and the AEC-CEC proposal and require significant lead time to implement. These include standardising security service definitions and procurement processes, replacing the RIT-T with a single streamlined least-cost procurement process that incentivises network and non-network solutions equally, and enhancing the broader accountability and role of the TPSS. Proceeding with the two rule change requests separately would create regulatory gaps, duplicated effort, mismatched investments and prolonged system risks, whereas joint upfront progression enables a holistic, end-to-end reform of governance, planning and procurement that best meets the National Electricity Objective.

Tesla thanks the AEMC for the opportunities to engage on this topic to date and welcomes any questions on the details of this submission.

Kind regards,

Kaavya Jha
Senior Energy Policy Advisor

Question 1: What are your views on the issues relating to the timing of system security procurement against transition points?

Tesla agrees with the importance of timely procurement and delivery of security services outlined in both rule change requests. We recognise the inherent asymmetry of risks in procurement decisions, with under-procurement posing significant threats to system reliability. These risks are particularly acute at transition points, such as the retirement of synchronous thermal generation.

The proposals to enhance current system security frameworks offer solutions that, when combined, boost efficiency and transparency in procurement. Tesla views these reforms as rooted in enhancing accountability, transparency, and specificity of requirements, rather than simply extending procedural timelines like the generator notice of closure period. While the AEMO request notes that 'information on generator closure is not provided in sufficient time to plan for investment in security,' Tesla sees the timing issue as centring on the need for clear information on future security requirements well in advance of when services are actually needed. This goes beyond generator closure notifications and addresses broader challenges related to certainty and transparency for investors and the wider market. Specifically, the AEC-CEC proposals highlight deficiencies in forward-looking signals from mechanisms like the annual TPSS and associated security reports, which currently set binding requirements only three years ahead.

Question 2: What are your views on the characterisation and materiality of issues relating to the assessment and procurement processes for system security investments?

Tesla agrees with AEMO's characterisation that the RIT-T assessment processes are overly complex relative to the nature of security requirements and existing guardrails. We support AEMO's emphasis that the primary focus should be on cost-effectiveness for consumers rather than solely net market benefits, along with their recognition of disconnected modelling assumptions for non-network options (NNOs) that may not reflect the actual costs passed on to consumers. Furthermore, Tesla notes challenges within the RIT-T itself, including a lack of scrutiny over how portfolio options are shortlisted under the TNSP portfolio approach, adding another layer of complication.

Post-RIT-T, at the procurement stage, further material issues arise, including inconsistent technical specifications, limited visibility into the nature and specifications of bilateral contracting, and a lack of accountability in the timing of this stage. As an improvement to the current approach, Tesla supports a transparent procurement framework with standardised specifications for services and costs to provide clear expectations, enabling project investments for NNOs.

Tesla is the leading global provider of grid-forming batteries, with our industrial product design team regularly looking to Australia for insight into hardware evolutions for future products. Yet it is particularly challenging to anticipate future product requirements given the lack of transparent and standardised service requirements for stable voltage waveform services and "protection grade" fault current. This creates a chicken-and-egg problem, whereby TNSPs claim products do not meet their specifications but fail to share those specifications in time for OEMs to demonstrate compliance (or future capability) until extremely late in the process.

Question 3: What are your views on the issues raised with the NSCAS framework as a backstop mechanism for system strength and inertia requirements?

Tesla is generally supportive of AEMO's issues raised with the NSCAS framework as a backstop mechanism for system strength and inertia requirements. We support greater flexibility in its use, including the ability to consider stable voltage waveform services within the framework.

Question 4: What are your views on governance and transparency in the security frameworks?

Tesla supports the Commission's characterisation of the issues raised in the AEC-CEC rule change request. A lack of governance and transparency in the existing frameworks leads to inefficient market outcomes, as governance gaps and weak forward-planning signals can result in duplicated investments and higher consumer costs. Tesla also endorses the Commission's view of the linkages between security services and emissions reductions: clearer incentives for ESS deployment can facilitate timely coal exits and increased renewable integration, thereby lowering the NEM's emissions intensity.

Tesla agrees that significant challenges arise from not having a single party accountable for the successful deployment of ESS. This reiterates the issues raised in Question 2 regarding the lack of a single party responsible for defining technical specifications and procurement processes, which reduces jurisdictional alignment and creates risk and uncertainty for new technologies such as grid-forming batteries. Tesla was an active participant in AEMO's inertia methodology workstream, engaging in formal submissions and 1:1 workshops, and found it a positive and productive process. It demonstrated the clear benefit that arises for both market participants and system planners when services can be clearly defined and therefore effectively coordinated, planned, and invested in.

Similarly, Tesla agrees with the Commission's interpretation that opaque procurement processes reduce competition and increase costs for consumers. These processes should be reviewed in this rule change to define and specify them in the Rules.

Question 5: What are your views on the proposed solutions from both proponents?

The three main solutions that Tesla is supportive of (in order of priority) are: 3.4.3 The AEC and CEC propose standardising security service definitions and procurement processes; 3.2.3 AEMO proposes a streamlined or alternative RIT-T process for system security investments; and 3.4.2 The AEC and CEC propose including extra Rules guidance on the TPSS to include specific actionable plans.

3.4.3. The AEC and CEC propose standardising security service definitions and procurement processes.

Standardising security service definitions and procurement processes, with AEMO required to determine NEM-wide, performance-based and technology-neutral specifications for inertia and system strength, would enable a competitive TNSP-led procurement process. The TPSS could explicitly outline the type, quantity, location and timing of required services for standard contracts, enabling technology-neutral competition between network and non-network solutions and ultimately reducing total system costs.

3.2.3. AEMO proposes a streamlined or alternative RIT-T process for system security investments.

Tesla supports replacing the RIT-T with a single streamlined procurement process for system security investments. This should move from a net market benefit test to a least-cost assessment for consumers while maintaining cost discipline and ensuring equal incentives for network and non-network solutions. The approach should incorporate AEMO-defined service specifications and require both network and non-network solutions to bid into the TNSP procurement round.

3.4.2 The AEC and CEC propose including extra Rules guidance on the TPSS to include specific actionable plans.

Tesla supports pursuing the AEC-CEC proposal to introduce actionable projects and greater transparency into the TPSS. The TPSS should detail AEMO-identified needs, RIT-T quantities and their alignment with those needs, what TNSPs have already procured, any delays or shortfalls in the procurement process, and AEMO's specific plans and timelines to resolve shortfalls. This would strengthen governance, accountability and transparency, reduce the likelihood of NSCAS being required, and ensure the ESS framework is fit for purpose.

Question 6: What are your views on the costs and benefits of the proposed solutions?

Tesla does not view the costs of the proposed solutions as prohibitive to implementation. They would yield material benefits, including heightened competition among ESS providers, lower whole-of-system costs by preventing investment duplication, and expanded variable renewable energy supply through reduced curtailment. These benefits also include timely thermal generation exits, emissions reductions, and broader environmental gains. This aligns with the consultation paper's emphasis on the asymmetrical risks of ESS procurement, where over-procurement may add modest consumer costs, but under-procurement poses far graver threats, including system insecurity, blackouts, delayed coal retirements, and higher emissions.

Drawing on Tesla's participation in AEMO's Inertia Requirements Methodology development for synthetic inertia, Tesla believes AEMO is well placed to lead the standardisation of technical specifications and quantification for system strength without prohibitive cost or technical burden.

Question 7: What are stakeholder views on the timing, coordination and implementation factors relating to the rule change requests?

Tesla supports coordinated and timely progression of the AEC-CEC rule change request alongside the AEMO request to ensure cohesive ESS procurement reforms across the NEM. While acknowledging that the relevant frameworks are relatively recent, progressing the two rule change requests separately risks inefficiency. If only one advances, the other (which has only recently been updated) would likely require similar revisions in the near future, duplicating effort and delaying outcomes. Delaying the AEC-CEC work to prioritise only the AEMO request would undermine the holistic ESS framework by isolating governance and market mechanisms from operational delivery, potentially leading to mismatched investments and prolonged system risks.

Although the AEMC references other workstreams, such as the Network Review and NEM Review implementations for co-optimising energy and ESS investments, Tesla asserts that these rule

changes offer the most direct path to establishing clear ESS procurement mechanisms and timelines.

Question 8: What are your views on the assessment framework?

Tesla is generally supportive of the assessment framework. To strengthen it, we suggest adding clarity to the 'implementation considerations' category so that it explicitly includes transparency in implementation.