

24 March 2025

Ms [REDACTED]

Director, Energy Consumer and Competition Policy
Department of Climate Change, Energy, the Environment and Water

Dear Ms [REDACTED]

RE: NSW Emergency Backstop Mechanism and Consumer Energy Resources (CER) Installer Portal Consultation Paper

Tesla Motors Australia Pty Ltd (Tesla) welcomes the opportunity to provide the NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW) with a response to your consultation paper.

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.

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 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.

The increasing regulatory complexity in Australia's energy industry is making it incredibly difficult to remain a competitive market to invest time and resources to in comparison to other global markets. If Australia and more specifically NSW, want to remain a competitive player in the energy industry and leverage the successes Australia has delivered to date, we need to continue to ensure we reduce regulatory complexity. The experience of rolling out the Victorian Emergency Backstop Mechanism required significant bespoke, arduous and consuming investment in time to implement. Several issues remain today, and we want to ensure NSW does not follow along the same path but rather learn from and capitalise on an opportunity to make NSW a leading force in their introduction of emergency measures and other associated mechanisms.



Moving forward we would welcome the opportunity to work collaboratively with NSW to help ensure OEM considerations are factored into the decision-making process. This will become extremely impactful when considering development pathways in the lead up to any 'go-live' date. As not only with DNSP utility servers have to begin operations, but the devices themselves will also have to be compatible to ensure installs can continue seamlessly.

We applaud NSW in being ambitious in its regulatory approach than simply putting effective regulatory design in the 'too hard' basket. While the NSW Government recognised their opportunity to harmonise the backstop across NSW and other jurisdictions, it was also noted that a nationally consistent approach may not be achievable by Spring 2025, when a mechanism is required in NSW for system security. Tesla discusses more in depth below, however, the emergency backstop will not be an effective tool that can be used as soon as the proposed 'go-live' date of Spring 2025. If NSW follows precedent of other jurisdictions, the new requirements will only apply to new and replacement systems, and as such, there will be no effective mechanism for system security in NSW by the proposed timeline. We urge the NSW Government to prioritise getting the design and implementation of the mechanism right, rather than rushing to a fast-tracked implementation timeline.

Kind regards,

[Redacted signature block]

Attachment – Response to questions

Emergency Backstop Mechanism

Question	Tesla response
<p>Question 1 - Do you support the requirement for NSW DNSPs to harmonise their implementation of the backstop mechanism? If not, please explain why.</p>	<p>Tesla understands that according to AEMO's assessment and advice to jurisdictional governments, to maintain system security, all mainland NEM regions (SA, QLD, VIC, NSW/ACT) need operationally effective emergency backstop capabilities as soon as possible. In order to achieve a mechanism that is 'operationally effective' we believe that there needs to be obligations placed on NSW DNSPs, including but not limited to achieve harmonisation in the implementation of the backstop mechanism.</p> <p>Very recent experiences provide a rich evidence base for the NSW Government on how to introduce a backstop mechanism. There has been a regulatory framework in South Australia for a backstop mechanism since 2020. Despite being considered a success in current day, originally compliance rates were initially poor. SA Power Networks has major work programs and demonstrated significant commitment to improve compliance which are seeing compliance rates climb, but further work is required to achieve the levels of compliance needed for ongoing operational effectiveness. In Queensland, the backstop mechanism only applies to inverters larger than 10kVA, and compliance rates have been extremely poor (with site audits identifying that only ~16% of systems which should have backstop are correctly configured and performing as designed). Victoria recently introduced a backstop mechanism (commencing from October 2024); the capability is small at present, and experiences to date suggest considerable efforts will be required to achieve the necessary levels of compliance.</p>

	<p>In order to maintain trust and confidence in the overall energy transition we cannot aim to leave room for a clunky transition period. We do not believe it is satisfactory to expect or anticipate a 'learning period' when new mechanisms are introduced and enforced by any government. Discussed further below, Tesla recommends that the NSW/ACT Governments run education campaigns for installers to ensure once the mechanism goes live it is a smooth experience to the fullest extent possible.</p>
<p>Question 2 - Are the scope and timelines for the Emergency Backstop Mechanism feasible? If not, please explain why.</p>	<p>Tesla recommends that there is a delay to the introduction to the mechanism until March 2026.</p> <p>Recent history in implementing an emergency backstop mechanism in Victoria in 2024 dictates that proper implementation takes longer than what was anticipated by the Victorian Government, and definitely by the NSW/ACT Government. For example, the Victorian Government published their Ministerial Order specifying the new licence conditions on 31 January 2024.¹ This Ministerial Order originally identified 01 July 2024 as the start date, which was then delayed to 01 October 2024.</p> <p>If the NSW Government wants to ensure an effective emergency mechanism is put in place, with appropriate integrations and education to industry, the postponement is essential.</p>
<p>Question 3 – Do you agree with the order of the hierarchy of measures to increase load in the grid during MSL events? If not, please explain why.</p>	<p>Tesla supports the NSW Government's intention to ensure the Emergency Backstop Mechanism will be used as a last resort measure to maintain system security during Minimum System Load (MSL) events. We do, however, point the NSW Government to look to understand how they could support more innovative approaches that provide value back to customers for the network services their devices are playing. For example, SA Power</p>

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	Networks is looking to trial a Local Flexible Marketplace Pilot from their new Innovation Fund approved by the AER in their latest Regulatory Determination 2026-2031.
<p>Question 4 – Are the design elements of the Emergency Backstop Mechanism appropriate and feasible? If not, please identify why and provide any alternative suggestions.</p> <p>Question 5 – Are the roles and responsibilities of each organisation appropriate and feasible? If not, please identify why and provide any alternative suggestions.</p>	<p>Tesla recommends that the NSW Government review the design elements, as well as roles and responsibilities in this paper to consider how OEMs fit into ensuring an appropriate solution is designed. Especially in relation to device functionality and communication protocols. There is currently no mention of OEMs throughout the paper, despite the considerable engineering work required.</p> <p>We recommend giving OEMs 6 months from when DNSPs finalise their utility servers for OEMs to complete internal engineering design, testing and certification, and firmware rollout before the ‘go-live’ date of the backstop mechanism.</p>
<p>Question 6 - Do you support the threshold for the Emergency Backstop Mechanism using CSIP-AUS being 200kW and smaller? If not, please provide detail on what threshold you think is appropriate.</p> <p>I. Do you agree with the approach for systems above 200kW? If not, please explain why and provide any alternative suggestions.</p>	Tesla supports an aligned approach.
<p>Question 7 - Do you have any concerns or insights into using CSIP-AUS compatible inverters and an internet connection to control the backstop mechanism?</p> <p>Question 8 – Is it appropriate for the Emergency Backstop Mechanism to be implemented using technologies and systems consistent with enabling the</p>	<p>8. Tesla fully supports implementing the mechanism using technology that paves the way for flexible export limits. This approach:</p> <ul style="list-style-type: none"> • Enhances long-term grid flexibility • Enables participation in dynamic pricing and virtual power plant (VPP) initiatives • Provides a scalable foundation for future innovations in distributed energy resource management

<p>future use of flexible export limits? If not, please explain why.</p> <p>Question 9 – Which, if any, existing test protocols should be considered for implementation as the consistent test protocol for NSW?</p>	<p>By aligning current emergency measures with future market functionalities, the solution maximizes both immediate grid security and long-term consumer benefits.</p> <p>9. Adopting a nationally harmonised test protocol will ensure consistency and reliability. Tesla also supports continued collaboration with industry experts to periodically update these protocols as technologies evolve.</p>
<p>Question 10 – Do you think the conditions under which the Emergency Backstop Mechanism could be used are appropriate? If not, why? Please suggest any alternative conditions that should be considered.</p>	<p>Tesla supports the conditions for activating the backstop mechanism—primarily as a last-resort measure during MSL events. Nonetheless, Tesla recommends that NSW ensures that the mechanism is engaged only when absolutely necessary.</p> <p>This would ensure that the backstop is used judiciously, maintains social license by only being utilised under conditions where no alternative measures can maintain grid stability.</p>
<p>Question 11 – Do you have any views on the proposed implementation pathway (variation of DNSP licencing conditions) or alternatives?</p>	<p>Tesla supports the implementation pathway via variations to DNSP licensing conditions as it provides a clear legal framework. To further improve this pathway, Tesla suggests:</p> <ul style="list-style-type: none"> • Establishing an industry-led oversight committee to complement the regulatory framework • Implementing a pilot phase with controlled rollouts to test real-world performance before full-scale deployment <p>This combined approach ensures regulatory certainty while allowing for flexibility and iterative improvement based on field data.</p>
<p>Question 12 – What information will manufacturers, installers, customers and distribution networks require to implement the Emergency Backstop Mechanism?</p>	<p>The NSW Government should proactively arrange an Emergency Backstop Mechanism WG. We understand that this is something that the Victorian Department of Energy, Environment and Climate Action has set up post ‘go-live’ date. However, if the NSW Government</p>

<p>I. Who is best placed to communicate this information to the different audiences?</p> <p>II. How should this information be best communicated to the different audiences?</p>	<p>proactively set up open dialogues between all parties (manufacturers, installers, customers and distribution networks) this would facilitate an appropriate open dialogue to resolve issues as they arise.</p> <p>Information Required:</p> <ul style="list-style-type: none"> • Technical Specifications: Detailed standards and operational protocols for CSIP-AUS compliance and installation practices. • Operational Procedures: Clear instructions on activation protocols, testing regimes, and fallback procedures during MSL events. • Compliance Guidelines: Reporting requirements, performance monitoring metrics, and remediation pathways for non-compliance. • Cybersecurity Measures: Guidelines and contingency plans to safeguard the communication networks and devices. <p>Who Should Communicate:</p> <ul style="list-style-type: none"> • The NSW Government in partnership with DNSPs is best positioned to disseminate this information, given their regulatory oversight and operational role. Industry associations and key manufacturers should also play a role to ensure that technical details are accurately conveyed. <p>How to Communicate:</p> <ul style="list-style-type: none"> • Live Webinars and Workshops: Interactive sessions to address real-time queries and provide detailed walkthroughs.
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	<ul style="list-style-type: none"> • Dedicated Online Portals and Resource Centres: Centralised repositories with downloadable manuals, FAQs, and video tutorials. • Regular Updates and Industry Briefings: Email newsletters, industry conferences, and regional meetings to keep all stakeholders informed of updates and best practices.
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Installer Portal

<p>Question 13 – What CER should the Portal capture? Please explain the reasoning behind your answers.</p> <p>I. What types of technology?</p> <p>II. What size (capacity) of technology?</p> <p>III. What technology should be excluded? Why?</p> <p>IV. Should the Portal align with the Emergency Backstop Mechanism in capturing only systems under 200kW?</p> <p>V. Should the Portal capture technology consistent with that recorded in AEMO's DER register? Is there additional technology that should be captured?</p>	<p>Tesla supports a comprehensive yet practical approach to the scope of CER technologies captured by the Portal. The Portal should balance maximizing grid visibility and compliance with minimising administrative burden for installers and stakeholders.</p> <p>I. What types of technology?</p> <p>The Portal should capture all grid-connected CER that impact grid stability, compliance, and energy market participation, including:</p> <ul style="list-style-type: none"> • Solar PV systems • Battery Energy Storage Systems (BESS) • Electric Vehicle (EV) charging infrastructure (smart chargers & V2G-enabled) <p>These technologies are key to grid decentralisation and consumer participation in VPPs, demand response, and dynamic energy trading. The Portal will provide critical data visibility for DNSPs and AEMO.</p>
	<p>II. What size (capacity) of technology?</p>

	<p>Tesla supports capturing systems up to 200kW in alignment with the Emergency Backstop Mechanism. However, for larger commercial and industrial (C&I) installations, DNSPs should implement a separate but interoperable process tailored to their grid impact.</p> <ul style="list-style-type: none"> • ≤200kW: Fully integrated into the Portal for standardized compliance tracking and streamlined installation processes. • >200kW: Required to register but managed under a separate process with DNSPs to account for custom engineering and regulatory assessments. <p>This approach minimises administrative burdens for both installers and DNSPs.</p>
	<p>III. What technology should be excluded? Why?</p> <ul style="list-style-type: none"> • Standalone off-grid systems (not connected to the NEM) • Non-exporting backup generators (unless grid-connected for demand management) • Small-scale plug-and-play solar solutions (≤1kW, such as balcony solar kits in the future) <p>The Portal should focus on grid-connected assets that impact network operations and grid compliance. Off-grid systems and micro-solar solutions do not require compliance tracking in the same manner as larger, grid-integrated assets.</p>
	<p>IV. Should the Portal align with the Emergency Backstop Mechanism in capturing only systems under 200kW?</p> <p>Yes, the Portal should align with the 200kW threshold but should also allow for:</p> <ul style="list-style-type: none"> • Registration of larger systems with appropriate DNSP coordination.

	<ul style="list-style-type: none"> • Capability for future expansion if national or NSW policy changes require it. Aligning with the backstop mechanism avoids complexity while maintaining flexibility for future scalability.
	<p>V. Should the Portal capture technology consistent with that recorded in AEMO's DER register? Is there additional technology that should be captured?</p> <p>Yes, Tesla supports full alignment with AEMO's Distributed Energy Resources (DER) register to avoid duplication and ensure national consistency.</p> <p>Additionally, the Portal could in the future:</p> <ul style="list-style-type: none"> • Capture real-time operational data where feasible to improve grid visibility. • Include data on smart inverters and controllable loads for demand-side participation. • Enable dynamic pricing and flexible export registration for future market-based grid participation. <p>This alignment reduces compliance burdens while enhancing grid planning and demand response capabilities. However, comprehensive cost benefit analysis of future capabilities should be undertaken to ensure appropriate expenditure to impact is accounted for.</p>
<p>Question 14 – Do you support the functions outlined for inclusion in the CER Installer Portal? If not, please explain why.</p>	<p>Tesla generally supports the proposed functions of the CER Installer Portal, as they align with the broader goals of ensuring compliance, reducing administrative burdens for installers, and enhancing consumer protections. However, we recommend prioritising simplifying any processes through automated data-sharing functionalities to streamline</p>

	<p>registration and compliance processes across different networks and markets. The integration of DNSP application portals is particularly beneficial in reducing duplication and enhancing efficiency.</p> <p>One concern is whether the compliance and enforcement functionalities, such as warnings and restrictions on applications for non-compliance, provide adequate mechanisms for dispute resolution and installer education. It will be important to ensure that installers are supported with guidance on rectifying compliance issues rather than facing immediate penalties.</p>
Question 15 – Are there any additional functions you would like to see included within a CER Installer Portal?	<p>Tesla recommends that the Department focus on how they could utilise the portal not only to uplift compliance and provide visibility to the government and AEMO, but also utilise the portal for assessing eligibility and compliance for rebates. This could be extended to help facilitate several elements of evidence/information required to access schemes such as PDRS, this could include things like serial number checks and photo logs.</p>
Question 16 – Are there additional ways that the Portal should be designed to support installers?	<p>To further support installers, the Portal should:</p> <ul style="list-style-type: none"> • Offer a Mobile-Friendly Interface – Given that many installers work on-site, a fully functional mobile interface is critical. • Provide Pre-Filled Forms and Auto-Suggestions – Reducing manual data entry by auto-populating fields based on prior records and DNSP data. • Introduce a Training and Knowledge Base Section – A built-in training module within the Portal could help keep installers updated on evolving compliance requirements.

	<ul style="list-style-type: none"> • Enable Multi-User Access for Installation Teams – Many installation companies work in teams, so shared access to application progress would improve efficiency.
<p>Question 17 – Do you agree that the party that applies for a CER connection should be responsible for ensuring the installers they have engaged rectify non-compliance? If not, please explain why.</p>	<p>Tesla acknowledges the need for accountability in compliance but recommends a shared responsibility model between applicants, installers, and regulatory bodies. Holding the applicant solely responsible may create undue burdens, particularly if an installer is uncooperative or unavailable.</p> <p>Instead, a structured compliance pathway should be established, where:</p> <ul style="list-style-type: none"> • Installers remain primarily responsible for rectifications, with a structured notification and resolution process. • Applicants are required to engage accredited installers and report non-compliance issues but are not penalized for installer failures. • The Portal facilitates compliance tracking and dispute resolution, ensuring that compliance rectification is a collaborative process rather than punitive for applicants. <p>This ensures a cooperative approach between industry participants and regulators to ensure the burden is not solely left to consumers and they are adequately supported to achieve a resolution as quickly as possible.</p>
<p>Question 18 – Do you have any other views on compliance and enforcement within the Portal?</p>	<p>Tesla supports compliance mechanisms that ensure quality and consumer protection but suggests the following refinements:</p> <ol style="list-style-type: none"> 1. A Tiered Enforcement Model – Instead of outright application restrictions, a tiered warning system should be introduced, allowing installers to correct issues within defined timeframes before harsher penalties are applied.

	<ol style="list-style-type: none"> 2. A Dispute Resolution Mechanism – An independent resolution pathway should be available for cases where an installer disputes a non-compliance determination. 3. Public Compliance Ratings – A rating system could be introduced to highlight the compliance track record of installers, allowing consumers and applicants to make informed choices.
Question 19 – Are there additional ways that the Portal should be designed to support installers?	Yes, Tesla suggests API Access for Industry Software Integration – Many installers use proprietary software for scheduling and tracking; enabling API access would improve workflow integration.
Question 20 – Do you agree with the phased approach proposed for the delivery of the Portal? If not, please explain why.	Tesla supports the phased approach as it allows for a gradual implementation of core functionalities while refining the system based on user feedback. However, we recommend ensuring that Phase 1 includes essential interoperability functions between DNSPs and CER databases to prevent duplicate or redundant data entry. Additionally, regular stakeholder engagement throughout Phase 1 is critical to addressing real-world implementation challenges before Phase 2.
Question 21 – Do you think that there are any functions that should be included or excluded from the first phase of the Portal development?	<p>Tesla recommends including the following in Phase 1:</p> <ol style="list-style-type: none"> 1. Interoperability Features – Full integration with DNSP databases and automated compliance verification should be foundational. 2. Basic Compliance Enforcement – The initial version should flag but not restrict applications based on non-compliance, allowing for a transition period. 3. Real-Time Device Registration – The ability to instantly register and validate installed devices with DNSPs should be a high priority.

	<p>Tesla also suggests deferring:</p> <ul style="list-style-type: none"> • Complex Enforcement Actions – Strict penalties should be reserved for Phase 2 after the system is proven reliable. • Advanced Data Analytics and Forecasting – While useful, these features should not delay the rollout of core functionalities.
<p>Question 22 – Do you support the proposed joint NSW Government-DNSP delivery of the CER Installer Portal? If not, please explain why.</p>	<p>Tesla supports the joint delivery but cautions against excessive bureaucracy and delays due to multi-agency coordination. To mitigate risks:</p> <ul style="list-style-type: none"> • A single governing body should be responsible for system oversight to prevent inefficiencies. • A defined roadmap with accountability checkpoints should be established. • Industry representatives should be included in decision-making to ensure that the Portal remains functional and beneficial for installers.
<p>Question 23 – What information will installers and any other stakeholders require to support the roll out of the CER Installer Portal?</p> <p>I. Who is best placed to provide this information?</p> <p>II. What are the best ways of communicating this information to stakeholders?</p>	<p>Installers will require:</p> <ul style="list-style-type: none"> • A detailed implementation guide outlining how to use the Portal. • Training resources and webinars to familiarize themselves with new workflows. • A compliance framework guide explaining how non-compliance will be handled. <p>Who is best placed to provide this information?</p> <ul style="list-style-type: none"> • The NSW Government and DNSPs should provide official documentation.

	<ul style="list-style-type: none"> • Industry bodies and manufacturers should support training on compliance and best practices. <p>What are the best ways of communicating this information to stakeholders?</p> <ul style="list-style-type: none"> • Live Webinars and Q&A Sessions – Interactive sessions will help address real-time concerns. • Online Knowledge Base & FAQs – A searchable knowledge centre should be maintained. • Regional Workshops – In-person events for hands-on training in key locations. <p>OEMs will require:</p> <ul style="list-style-type: none"> • At the very least a 6-month implementation window once DNSPs have finalised utility servers to develop and roll out backstop mechanism on new devices. 6 months would be enough time for us to do engineering work, testing and rollout firmware for NSW backstop.
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