

28 August 2026

Department of Energy and Economic Diversification

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Submission: Capability Class 2 technologies (CC2T) Review: Consultation Paper

The Smart Energy Council Western Australia (SEC WA) welcomes the opportunity to respond to the Department of Energy and Economic Diversification's (DEED) Capability Class 2 technologies Review Consultation Paper (the Consultation Paper). SEC WA represents businesses across the battery storage, wind, solar and demand side response sectors operating in the Western Australian energy market, including the South West Interconnected System (SWIS).

This submission focuses on the proposed introduction of a state of charge (SOC) obligation applying during a new Lack of Reserve (State of Charge) (LOR-SOC) condition (Proposals 4a and 4b), and the related refund mechanism (Proposal 5), given the direct and material impact these proposals would have on SEC WA's Electric Storage Resource (ESR, i.e. battery storage) members. SEC WA notes the consultation period closes at 5:00pm (AWST) on 1 September 2026, a short window given the complexity of the proposed changes, and would welcome the opportunity for further engagement as the proposals are developed.

Overview

- The proposed Lack of Reserve (State of Charge) (LOR-SOC) framework places material operational and financial consequences on Electric Storage Resource (ESR) operators. This submission sets out a series of questions raised by the Consultation Paper that require further detail and clarification from DEED and AEMO before those consequences can be properly assessed.
- Any increase in costs to ESR operators arising from the LOR-SOC framework, whether through the doubled refund under Proposal 5, foregone market revenue during a constrained period, or new compliance and implementation costs, is a risk and a concern to industry. These cost impacts should be identified and quantified before the proposals are finalised.
- The matters raised below are not exhaustive. SEC WA would welcome the opportunity to comment further once AEMO's methodology and cost information are available.

Proposal 4a: Design of the LOR-SOC obligation

Transparency of the SOC obligation methodology

The Consultation Paper proposes that the Electricity System and Market (ESM) Rules will define the information that must be included in the relevant Wholesale Electricity Market (WEM) Procedure, including the methodology the Australian Energy Market Operator (AEMO) will use to determine the SOC obligation level. This raises the following questions:

- How the uniform SOC level will be calculated, and whether it will vary by facility duration or derating profile rather than applying a single figure across all Peak Certified ESR Facilities.

- How AEMO's determination will be made available to Market Participants with sufficient lead time to adjust charging behaviour, particularly given batteries cannot always recover charge lost earlier in the Trading Day.
- Whether AEMO will publish ex post data on the frequency, timing and magnitude of LOR-SOC declarations, so that ESR operators and investors can price this risk into future project development and financing.

Notification timing

AEMO is required to use best endeavours to declare an LOR-SOC condition by 8:00pm on the Scheduling Day, with a firm requirement to declare no later than 8:00am on the Trading Day. SEC WA is concerned that a best endeavours standard for the earlier notification does not give operators adequate operational certainty, given the potential financial consequences of non-compliance. SEC WA seeks:

- A firmer commitment to early notification wherever system conditions allow, with the 8:00am deadline retained as the backstop only.
- Clarification of how AEMO will communicate an LOR-SOC declaration to affected Market Participants, and the mechanism for withdrawing a declaration once it is no longer required.

Interaction with the proposed Reserve Capacity Testing changes

SEC WA notes the proposed changes to Reserve Capacity Test performance measurement (Proposal 1), including the introduction of ramping requirements. SEC WA seeks assurance that facilities sized under any revised methodology will not be disadvantaged under a subsequent SOC mandate. SEC WA asks DEED and AEMO to confirm that ESR facilities sized appropriately under the revised testing methodology will not be disadvantaged in their ability to comply with a subsequent SOC mandate, and that the two proposals have been assessed together rather than in isolation.

Foregone market revenue during the LOR-SOC constraint window

SEC WA is concerned that the LOR-SOC framework, as proposed, imposes a cost on ESR operators beyond the doubled refund addressed under Proposal 5: the loss of Real-Time Market (RTM) and Frequency Co-optimised Essential System Service (FCESS) revenue while the SOC obligation applies.

The Consultation Paper's own technical analysis (Appendix D) found that, across all five system stress events (SSEs) examined, the estimated revenue an ESR earned from discharging earlier in the day exceeded the refund it subsequently paid for entering its Electric Storage Resource Obligation Interval (ESROI) while under-charged. The Coordinator's own conclusion is that this behaviour is economically rational for the ESR under the current settings.

- Under Option 1, AEMO would apply Constraint Equations that directly prevent a Peak Certified ESR facility from being dispatched for injection before its ESROIs while an LOR-SOC condition is in effect. This removes the operator's ability to sell into the RTM or provide FCESS during precisely the high price, system stressed periods in which that revenue would otherwise be greatest.
- Under Option 2, the same commercial outcome arises through mandatory zero quantity offers and bids rather than a constraint, so the foregone revenue impact is materially the same regardless of which compliance option is adopted.
- SEC WA notes AEMO's advice that the SOC target is expected to sit below 100 percent, leaving an ESR facility with some residual capacity to participate in the RTM and FCESS ahead of its ESROIs. SEC WA seeks clarity on how much headroom this

is likely to leave in practice, given this is the only partial offset identified against an otherwise complete loss of discharge revenue during the constrained period.

- SEC WA asks that DEED and AEMO quantify the expected foregone revenue impact of the LOR-SOC constraint on affected ESR facilities, using the same SSE case data set out in Appendix D, so that this cost can be weighed against the reliability benefit the proposal is intended to deliver.
- This foregone revenue is a cost to the ESR regardless of whether the facility ultimately complies with its SOC obligation. It should be recognised as a distinct impact from the doubled refund under Proposal 5, which only applies on non-compliance, and factored into any assessment of the overall financial impact of the LOR-SOC framework on the investment case for battery storage.

Proposal 4b: Compliance mechanism (Option 1 or Option 2)

The Consultation Paper sets out two options for how ESR operators comply with an LOR-SOC obligation without breaching other offer requirements. Under Option 1 (AEMO's stated preference), AEMO applies Constraint Equations directly. Under Option 2, ESR operators self-manage compliance through zero quantity offers and bids.

- The Consultation Paper does not fully resolve the relative merits of Option 1 and Option 2. Under Option 1, AEMO applied constraints may reduce the risk of inadvertent non-compliance by individual operators, but shift operational burden onto AEMO. DEED should confirm that AEMO has, or will resource, the systems and processes needed to apply Constraint Equations reliably and in a timely manner across the ESR fleet during a declared LOR-SOC condition.
- Under Option 2, operators retain more direct control but bear greater risk of an inadvertent breach through a manual offer or bid error. If Option 2 is adopted, SEC WA seeks a compliance safe harbour or grace period for operators as the new obligation beds in, given the commercial consequences of getting a manual adjustment wrong.
- Further information from AEMO on the relative implementation cost and timeframe of each option, and on how each option is expected to perform during an actual LOR-SOC declaration, would help stakeholders meaningfully compare them.

Proposal 5: Doubled refund for non-compliance

Proposal 5 would double the refund amount payable by an ESR facility that fails to deliver its Reserve Capacity Obligation Quantity (RCOQ) on a Trading Day when an LOR-SOC condition is in effect, in addition to the separate civil penalty provision that will apply to breaches of the SOC obligation itself. This raises the following questions:

- The combination of a doubled refund and a civil penalty for the same underlying conduct risks a disproportionate compliance burden, particularly for a mechanism intended to apply during genuinely infrequent system stress events. DEED should clarify how the two enforcement mechanisms are intended to interact, and confirm that a facility will not face compounding financial consequences for a single instance of non-compliance.
- SEC WA seeks confirmation of the evidentiary basis for setting the multiplier at two times the standard refund, rather than a lower or graduated multiplier, and whether this figure will be reviewed once operational experience with the LOR-SOC framework is available.
- Given the doubled refund is explicitly designed to strengthen the financial incentive to comply, SEC WA asks that its implementation be paired with the transparency and

notification improvements sought above under Proposal 4a, so that ESR operators have a genuine and timely opportunity to comply before the higher refund can apply.

Responses to consultation questions

Do stakeholders support the proposals to introduce a state of charge mandate through the introduction of a new LOR-SOC condition?

The transparency, notification and cost questions raised above, in particular the quantification of the foregone market revenue impact on affected ESR facilities, require a response before this question can be properly assessed.

Which option, Option 1 or Option 2, do stakeholders support to assist ESR operators in complying with an LOR-SOC obligation?

The considerations relevant to each option are set out above. Further cost and implementation information from AEMO on both options is needed before this question can be properly assessed.

Do stakeholders support the proposal to introduce an addition to the current refund mechanism to apply only when an LOR-SOC condition is in effect?

Clarification of how the doubled refund interacts with the civil penalty regime, and confirmation of the evidentiary basis for the proposed multiplier, is needed before this question can be properly assessed.

Closing

SEC WA appreciates the opportunity to contribute to this Review and raises the above questions to assist DEED and AEMO in developing a workable LOR-SOC framework. SEC WA would welcome further engagement, including sight of AEMO's cost and revenue impact analysis, before the proposals are finalised. Please contact SEC WA to discuss this submission further.

Yours sincerely

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