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Via email: energymarkets@deed.wa.gov.au

Submission from the WA Expert Consumer Panel on the Power System Security and Reliability Standards Review - Coordinator of Energy's Consultation Paper 19 June 2025

Dear Ms Guzeleva,

Thank you for the opportunity for the WA Expert Consumer Panel (ECP) members to make a submission on the above consultation paper¹.

As a panel supported by the State Government's Western Australian Advocacy for Consumers of Energy (WA ACE) program, we are committed to improving consumer outcomes in the energy sector. We represent energy consumers on the Market Advisory Committee (MAC) and its working groups, including two members on the Power System Security and Reliability (PSSR) Standards Review Working Group.

Electricity supply reliability

ECP members welcome the review of this important matter for WA households and small businesses who rely on affordable, reliable and clean electricity.

It aims to bring multiple existing regulatory instruments for power system security and reliability into a single, integrated PSSR standard under the Electricity System and Market Rules (ESM Rules) and a centralised governance framework. In doing so, it should address gaps, duplications, overlaps and inconsistencies in the existing standards and their governance arrangements, and ultimately result in improved reliability of electricity supply to consumers.

An electricity system also needs to be secure, meaning it will ride through typical 'disturbances' without affecting the reliability of acceptable quality-of-supply (voltage waveform). Section 2.2 of the consultation paper presents definitions for reliability, security and quality, and the relationship between them, with examples. System security is ultimately required to help maintain reliability.

The majority of electricity consumers in the South-West Interconnected System (SWIS) experience acceptable reliability. However there are still too many consumers, particularly in

¹ [PSSR Review consultation paper](#)

regional and remote parts of the extensive SWIS, who suffer the inconvenience, cost and uncertainty from poor electricity reliability.^{2,3,4,5}

Prioritising network reliability improvements

Most supply interruptions in the SWIS are caused by issues on the electricity network rather than generation shortfalls, noting that the PSSR standards apply to both.

That said, ECP members consider that measures which individually or in aggregate deliver the largest improvement in reliability earliest, should be prioritised. These are likely to be network reliability improvement standards and measures, not to downplay the importance of the others.

It is necessary to balance overall affordability and reliability outcomes for consumers who ultimately fund the system through their bills and taxation. The costs and other impacts of supply interruptions to consumers can be significant and need to be taken into account in arriving at this balance and prioritisation. Guaranteed Service Level (GSL) compensation measures also need to reflect the overall impact of supply interruptions on consumers so that the impact of not rectifying a reliability problem is explicitly considered against the cost of rectifying it.

Depending on the cost of actually rectifying a reliability problem, financial compensation to a small number of affected customers can become a way of just buying out of the need to do something permanently about a system problem and does not improve the affected customers' long-term outcomes.

During future consultation on customer-focused incentives for failure to meet the GSL, we suggest that consideration of escalation mechanisms be included, which may include financial or alternative solutions for individual customers.

Consultation paper proposals

ECP members support the guiding principles (section 1.2, and Chapter 3) and a number of proposals presented in the consultation paper most relevant to small use customers.

² This is evidenced by the Economic Regulation Authority's (ERA) outage and reliability pages of its Western Australia energy distributor data dashboard³. More granular data can be found in Western Power's Service Standard Performance Report for the year ended 30 June 2024⁴ and its complementary Excel spreadsheet with supply interruption data for individual feeders and local government areas - available from the ERA's Service Standards web page⁵.

³ ERA [Western Australia energy distributor data dashboard](#)

⁴ [Western Power Service Standard Performance Report](#)

⁵ [ERA Service Standards Western Power reports](#)

Proposal 1

The planning standard for the Network Operator to include both customer outcome standards and deterministic standards such that:

- The customer outcome standards be implemented as obligatory standards in the ESM Rules, with effective incentive mechanisms determined as part of the access arrangement process, and the deterministic standards be included to continue to provide guidance to the network design process.*
- The customer outcome standards to be set on a locational basis.*
- Specific measures for customer outcome standards will be consulted on a later date.*
- The customer outcome standards will be reviewed by government on a regular basis (3-5 yearly).*

Consultation questions

- Do stakeholders agree with the proposed framework?*

Yes, ECP members support this framework, providing the third bullet point of the proposed framework is amended to read: “Specific measures for customer outcome standards, and associated Guaranteed Service Level payments for when these standards are not met, will be consulted on a later date”.

- Do stakeholders consider that the deterministic standards should be mandatory, requiring an exemption from the ERA to deviate from them, or implemented as a guide for the Network Operator?*

ECP members consider that deterministic standards should be a guide, with no requirement for ERA approval for the Network Operator to depart from them. Where the Network Operator decides to depart from the standards it should be required to provide clear and justifiable reasons for doing so, and to transparently document those reasons for later review by external agencies like the ERA or EPWA as necessary.

- What indicators do stakeholders consider should be used for the customer outcome standards?*

ECP members would welcome the opportunity to discuss indicators as part of the intended consultation on specific measures for the outcome standards and payments when GSL standards are not met.

ECP members support the following statements from the consultation paper (*italicised*), with some additions to reflect our views (blue, not italicised).

The customer outcome standards will be applied in the ESM Rules as the obligatory standard against which compliance will be measured. This will guide investment for customer groups not adequately serviced by the deterministic standards and require the Network Operator to respond to locations with higher than standard equipment failure rates or lower than acceptable reliability.

Many supply interruptions are not due to equipment failure (e.g., vegetation touching conductors, which can be avoided by appropriate vegetation management).

The customer outcome standards currently contained within the NQRS Code and Access Arrangement will be harmonised and reviewed to ensure they are achievable and delivering desired customer outcomes across the network.

While some of the current outcome standards, such as SAIDI and SAIFI for the distribution network, and Loss of Supply Event Frequency (LoSEF) and average outage duration, may continue to serve as the basis for the measures for the customer reliability outcomes, the way in which some of the measures are currently set is not fit-for purpose. Careful consideration needs to be given to the locational basis on which they are set to provide appropriate customer outcomes. This may include a financial incentive mechanism, such as a Guaranteed Service Level (GSL) scheme, which requires payments to customers when the frequency or duration of outages they experience exceeds a defined threshold set for their particular location.

ECP members consider that a GSL scheme should include a minimum level of acceptable reliability for individual customers, with adequate service standard payments for impacted customers⁶.

Customers with the worst reliability are overlooked by the current ‘averaged’ service performance metrics (e.g. SAIDI, SAIFI, LoSEF and CAIDI). The individual-customer-reliability experience should ultimately determine what the network operator should do to bring reliability up to acceptable levels.

We recognise that the cost of improving reliability needs to be taken into account. Standalone power systems (SPS) Western Power is rolling out are an example of reliability and cost being used to decide on a solution. SPS also help achieve the new third limb of the State Electricity Objective (SEO)⁷.

⁶ The current one-off payment of \$120 for households affected by outages lasting 12 hours or more is inadequate in many instances. A household that experiences an extended outage over multiple days for instance could incur costs well beyond this amount (e.g. expenses such as replacing spoiled food and relying on takeaway meals), which are not covered under the existing compensation. The ECP would like this review process to consider more substantial and equitable service standard payments that reflect the true impact of prolonged outages on residential and small business customers.

⁷ The State Electricity Objective is to promote efficient investment in, and efficient operation and use of, electricity services for the long-term interests of consumers of electricity in relation to —

- (a) the quality, safety, security and reliability of supply of electricity; and
- (b) the price of electricity; and
- (c) the environment, including reducing greenhouse gas emissions.

ECP members support achievement of all aspects of the SEO and consider that the revised PSSR standards must do so too.

During Stage 4 of this Review, EPWA will continue the work and further analyse how these measures should be set out as the relevant regulatory instruments are harmonised into one centralised framework.

This proposal was supported by the PSSRSWG. Members emphasised the importance of setting appropriate metrics, integrating transmission and distribution standards, and evolving the standards with customer and market needs as part of the detailed design work during stage 4 of this Review.

Proposal 2

A revised facility categorisation framework will be implemented in the ESM Rules, comprising of:

- *Large User Technical Standards: (Energy Producing Systems (incl. ESR) >10MVA, Synchronous Condensers);*
- *Medium User Technical Standards (Energy Producing Systems (incl. ESR) ≤10MVA);*
- *Loads (other than stand-alone ESR); and*
- *Small User Technical Standards (equipment connected to the low voltage network)*

Consultation question

Do stakeholders agree with the proposed categorisation framework?

ECP members consider that the proposed framework seems reasonable, without being aware of all of the implications.

Proposal 3

- *The Ideal Generator Performance Standard will be renamed the “Automatic User Performance Standard”.*
- *The Common Requirements for all users will be based on the section 3.2 of the 2023 proposed Technical Rules.*
- *The following user facility standards will apply to each category of user:*
 - **Large User Facility Standards:** *Current ESM Rules Appendix 12 standards (subject to proposals 6-11) will apply, with a framework to negotiate between Automatic User Performance Standards and Minimum User Performance Standards, as per the current Chapter 3A and Appendix 12 negotiation framework;*

- Medium User Facility Standards: Common Requirements and Minimum User Performance Standards (as per the 2023 proposed Technical Rules) would apply with no ability to negotiate;

- Loads: requirements aligned with section 3.4 of the 2023 proposed Technical Rules would apply with no ability to negotiate; and

- Small User Facility Standards: requirements aligned with sections 3.7 and 3.8 of the 2023 proposed Technical Rules will apply.

Consultation question

Do stakeholders support the adoption of the proposed User Facility categorisation and User Facility Standards?

ECP members consider that the proposed categorisation appears to be reasonable.

Proposal 4

• *The Network Operator will be required to document in a WEM Procedure, in accordance with principles set out in the ESM Rules, the circumstances in which compliance at a point other than the Connection Point will be required. Compliance will only be permitted to be assessed at either the Connection Point(s) or the alternative point(s) for facility i.e. not at both.*

• *Hybrid facilities that have the control and protection systems in place at all times to ensure their operation will not have a PSSR impact on the rest of the system will be treated as loads under the new User Facility Standards categorisation framework.*

Consultation question

• *Do stakeholders support the proposal to continue to allow compliance to be assessed at individual components behind the Connection Point if guidance is provided on when this requirement will be imposed?*

ECP members consider that the proposal appears to be reasonable.

Proposal 5

The existing governance framework will remain primarily the same, some modifications will be made to:

- ensure guidance on which facilities $\leq 10\text{MVA}$ are captured by the Large User Technical Standards framework;*
- ensure AEMO is consulted on the performance standards for such facilities in the way it is currently consulted under Chapter 3A of the ESM Rules for Transmission Connected Generating Systems;*
- require AEMO to engage directly with proponents to resolve issues if the Network Operator agrees to a negotiated position but AEMO does not and the Network Operator requests that AEMO do so; and*
- expand the number of facilities who are required to have a monitoring plan registered with AEMO to include facilities that:*
 - are not currently captured by the ESM Rules GPS framework; and*
 - will be captured by the Large User Technical Standards under the revised framework.*
- For future connections, where connection standards are negotiated between participants and the Network Operator, these negotiated standards will be made public.*

Consultation question

Do stakeholders support the proposed governance framework?

ECP members consider that the governance framework proposal seems reasonable, without being aware of all of the implications.

Proposals 6 – 12 inclusive, 14, 19 and 20

ECP members defer to others to comment on these proposals.

Proposal 13

AEMO, EPWA and the Network Operator to align on a forecasting approach, in consultation with interested stakeholders through public consultation. This approach should include the methodology, inputs, assumptions, and scenarios necessary for the determination of an expected 10-year generation and ESR capacity outlook on an annual basis.

This fleet mix should reflect capacity (i.e. MW), technologies (e.g. gas/wind/solar) and broad locations (e.g. regions).

Consultation question

- *Do stakeholders agree with the proposed forecasting approach?*

ECP members support the intent of aligning the forecasting approach between AEMO, EPWA and the Network Operator as proposed.

This should recognise the different needs of each party with regard to the purpose of their forecast/s, and that they use different sources of input or support in preparing their forecasts.

For example AEMO often uses consultants, such as the CSIRO, to contribute to its forecasts. AEMO uses its main forecast for the preparation of its ESOO. Western Power develops forecasts for the network it is responsible for, which doesn't include all of the SWIS network. The timing of forecasts may not always coincide.

Each of the parties would be able to comment on the practicalities of varying degrees of alignment in the forecasting approach and ECP members defer to them.

ECP members consider that AEMO and all Government entities should cooperate on a common modelling/forecasting capability that can generate scenarios to meet various purposes from a common set of underlying data and inputs, and that these assumptions are made public.

Proposal 15

The Network Operator will be required to forecast shortfalls in system strength required to host the expected portfolio of inverter-based resources on the system, and to take steps to procure services that can address these shortfalls through competitive mechanisms (using the NCESS framework).

Provisions will be incorporated into the ESM Rules to determine whether generator settings continue to meet a test for ongoing suitability, and allow the Network Operator and/or AEMO to request that settings are retuned as appropriate through a streamlined process.

Consultation question

Do stakeholders agree that the Network Operator should be obliged to make proactive investments to maintain system strength sufficient to host the expected fleet in a region?

ECP members consider this proposal to be reasonable, providing that good practice evaluation of options occurs to ensure that system strength enhancements are only made where there is a sufficient level of certainty that the expected fleet will eventuate in a region, requiring the additional system strength.

Proposal 16

To achieve a coordinated approach to forecasting inputs and assumptions, a collaborative process between the parties responsible for forecasting (EPWA, AEMO and the Network Operator) should be established, with general rules included in the ESM Rules to guide the parties towards effective collaboration.

Consultation question

Do stakeholders consider a collaborative approach will bring about the necessary consistency in forecasting?

ECP members support this proposal for a collaborative approach to assist with consistency in forecasting, noting our comments on forecasting under proposal 13 above also.

We suggest that this proposal seems to be more a statement of policy direction. It is important that incorporating it into the ESM Rules doesn't result in cooperation becoming cumbersome.

Proposal 17

Apply the facility ride through requirements, for the definitions relating to disturbances of the current ESM Rules Appendix 12.7- 12.9, on network elements with appropriate supporting text to clarify that this standard does not apply to:

- *Faulted primary equipment disconnected under the requirements of the current Technical Rule section 2.9.*
- *The operation of the Load Shedding requirements of the current Technical Rule clause 2.3.2 and section 2.4.*
- *elements of the network that are designed to trip as part of a scheme (e.g. protection scheme or generation runback scheme).*

Consultation question

Do stakeholders support the proposal to require network elements to ride through disturbances?

ECP members support this proposal.

Proposal 18

The ESM Rules will provide clarity on which customer outcome standards can be modified as part of a non-reference service, and any agreed modifications will be published.

Should conditions change such that the customer can be provided the reference level of reliability as per the customer outcome standards, the register will be adjusted to reflect this.

Consultation question

Do stakeholders agree that the framework to improve clarity and transparency?

ECP members support this proposal to improve clarity, transparency and information sharing.

Overarching position

ECP members consider it important that the standards and subsidiary requirements being revised or developed are no more onerous than necessary, in order to maximise participation and competition between providers or users, and avoid unnecessary barriers to entry or participation. We consider that this test should be applied to all proposals to help keep costs to consumers down.

Thank you for considering this submission, and please do not hesitate to contact us to discuss it further.

Sincerely,
WA Expert Consumer Panel