



Credit Limit Procedures - Prudential requirements for stand-alone power systems

Draft Report for expedited consultation
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New South Wales | Queensland | South Australia | Victoria | Australian Capital Territory | Tasmania | Western Australia

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Explanatory statement and consultation notice

The publication of this draft report commences AEMO's expedited consultation to consider proposed amendments to the Credit Limit Procedures (the **proposal**) under the National Electricity Rules (**NER**), relating to implementing prudential requirements for market participants in stand-alone power systems (SAPS). The purpose of the amendments is to incorporate SAPS market liabilities in the prudential settings for relevant market participants. This is required as a result of the *National Electricity Amendment (Regulated stand-alone power systems) Rule 2022¹* (**SAPS rule**).

This consultation is undertaken as required by NER 3.3.8 and 11.142.3, following the procedure in NER 8.9.3. AEMO considers that the expedited rules consultation procedure is appropriate because the proposal is non-material for the following reasons:

- Under the SAPS rule, the prudential requirements in NER 3.3 will apply to SAPS market participants from 30 May 2023, by virtue of new clause 3.21.1(b)(1).
- It is a NER requirement under 11.142.3 for AEMO to make any necessary amendments to the Credit Limit Procedures to account for the SAPS rule.
- The proposal represents a logical and straightforward way of determining prudential requirements for SAPS market participants with a pre-determined settlement price (the SAPS settlement price), consistent with:
 - The principles underpinning the NER prescribed 2% prudential standard.
 - The principles for calculating prudential settings applicable to all other market participants, with a simplified process.

The simplified process for calculating prudential settings for SAPS market participants uses only the SAPS load/generation and the SAPS settlement price. AEMO does not consider that there are any other viable options that would ensure prudential requirements are appropriately and consistently set.

This Draft Report aims to facilitate informed feedback from National Electricity Market registered participants and other interested parties, in particular anyone intending to supply or purchase electricity in a regulated SAPS, regarding the proposed amendments to the Credit Limit Procedures.

AEMO's draft proposal is to amend the Credit Limit Procedures in the form published with this draft report, with a proposed effective date of 30 May 2023.

Consultation notice

If any person considers that AEMO should follow the standard (rather than expedited) consultative procedure for this proposal, they can submit a request for AEMO to do so (a **procedure change request**), to prudentials@aemo.com.au by 5:00pm (Melbourne time) on the 10th business day after publication of this draft report. In accordance with NER 8.9.3(b), a procedure change request must include reasons why the person considers the proposal would have a significant effect on the NEM or on the activities of a relevant group of registered participants.

AEMO invites written submissions from interested persons on this draft report and the draft proposal to prudentials@aemo.com.au by 5:00pm (Melbourne time) on 4 November 2022.

¹ Made by the South Australian Minister and available on the AEMC website at: <https://www.aemc.gov.au/regulation/energy-rules/national-electricity-rules/electricity-rules-made-south-australian-minister>

Submissions may include alternative or additional proposals you consider may better meet the objectives of this consultation and the national electricity objective in section 7 of the National Electricity Law. Please include supporting reasons.

Please note the following important information about submissions, including procedure change requests:

- All submissions will be published on AEMO's website, other than confidential content.
- Please identify any parts of your submission that you wish to remain confidential, and explain why. AEMO may still publish that information if it does not consider it to be confidential, but will consult with you before doing so. Material identified as confidential may be given less weight in the decision-making process than material that is published.
- Submissions received after the closing date and time will not be valid, and AEMO is not obliged to consider them. Any late submissions should explain the reason for lateness and the detriment to you if AEMO does not consider your submission.

Interested persons can request a meeting with AEMO to discuss any particularly complex, sensitive or confidential matters relating to the proposal. Please refer to NER 8.9.1(k). Meeting requests must be received by the end of the submission period and include reasons for the request. AEMO will try to accommodate reasonable meeting requests but, where appropriate, we may hold joint meetings with other stakeholders or convene a meeting with a broader industry group. Subject to confidentiality restrictions, AEMO will publish a summary of matters discussed at stakeholder meetings.

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1. Stakeholder consultation process

As required by National Electricity Rules (NER) NER 3.3.8 AEMO is consulting on amendments to the Credit Limit Procedures (the **proposal**) in accordance with the expedited rules consultation procedure in NER 8.9.3.

Note that this consultation paper uses terms defined in the NER, which are intended to have the same meanings. There is a glossary of additional terms and abbreviations in Appendix A.

AEMO's process and expected timeline for this consultation is outlined below. Future dates may be adjusted and additional steps may be included as needed, as the consultation progresses.

Table 1 Consultation process and timeline

Consultation steps	Dates
Draft report published	3 October 2022
Procedure change request deadline	17 October 2022
Submissions due on draft report	4 November 2022
Final report published	Expected by 30 November 2022

This consultation is necessitated by the *National Electricity Amendment (Regulated stand-alone power systems) Rule 2022*, made by the South Australian Minister and published in the South Australian Government Gazette on 24 February 2022² (**SAPS rule**).

AEMO considers that the expedited rules consultation procedure is appropriate for the proposal because it is not expected to have a significant impact on either:

- The NEM wholesale market or power system, because it adheres to the principles underpinning the 2% prudential standard and is consistent both with the market rules introduced by the SAPS rule and the existing principles for prudential requirements in NER 3.3 and the Credit Limit Procedures.
- The activities of the group of registered participants that the proposal relates to, because it follows a simplified version of calculating prudential settings for SAPS market participants that is already in place for all other market participants.

At any time before the final report is published, and based on information received through submissions to this draft report, any procedure change requests under NER 8.9.3(b) or otherwise, AEMO may decide that the proposal can no longer be considered non-material. If so, AEMO will switch to the standard consultation procedure by publishing a notice under NER 8.9.3(f).

AEMO's consultation webpage for the proposal is at: <https://aemo.com.au/consultations/current-and-closed-consultations/credit-limit-procedures-consultation-saps>, which will contain all previous published papers and reports, written submissions, and other consultation documents or reference material (other than material identified as confidential).

² Available at: <https://www.aemc.gov.au/regulation/energy-rules/national-electricity-rules/electricity-rules-made-south-australian-minister>

2. Background

2.1. Context for this consultation

The proposed changes to the Credit Limit Procedures (**Procedures**) relate to incorporating prudential requirements for SAPS market participants, to be effective from 30 May 2023. This is the final effective date of the SAPS rule.

Under the SAPS rule, registered market participants who are financially responsible for a connection point in a regulated SAPS must sell and purchase their SAPS energy through the NEM wholesale exchange. SAPS energy transactions will be settled by AEMO through its NEM settlement systems, in accordance with NER Chapter 3. As for any other market participant, financially responsible SAPS participants will be required to comply with the prudential requirements under NER 3.3, including the provision of credit support sufficient to meet a maximum credit limit (MCL) established under the Procedures.

NER 3.3 is specifically applied to SAPS by new clause 3.21.1(b)(1), which will be inserted by the SAPS rule from 30 May 2023, and AEMO is required to make any necessary amendments to the Procedures by that date, in accordance with NER 11.142.3. As the incorporation of prudential requirements for SAPS market participants will require changes to AEMO's IT systems, however, the final form of those amendments must be settled significantly ahead of that date.

2.2. NER requirements

Under NER clause 3.3.8, AEMO is responsible for developing, publishing and maintaining the Procedures, which establish the methodology by which the AEMO determines the prudential settings for each market participant so that the 2% prudential standard is met for the NEM.

The Procedures may be amended in accordance with the Rules consultation procedures set out in NER rule 8.9.

2.3. The national electricity objective

Within the specific requirements of the NER applicable to this proposal, AEMO will seek to make a determination that is consistent with the national electricity objective (NEO) and, where considering options, to select the one best aligned with the NEO.

The NEO is expressed in section 7 of the National Electricity Law as:

to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to:

- (a) price, quality, safety, reliability and security of supply of electricity; and
- (b) the reliability, safety and security of the national electricity system.

3. Proposal discussion

3.1. Credit support in the NEM

Market participant confidence in the financial settlement of spot electricity transactions is critical to the operation of the NEM and setting the spot market price. AEMO's obligation to settle payments in a billing period is limited to the funds received from market participants in that billing period or provided under credit support arrangements. Any shortfall in funds received in a billing period is shared proportionally by market participants due payments in that billing cycle (i.e. generators).

Credit support arrangements need to be set at a level that ensures that in 98 out of 100 market participant default events, AEMO holds enough credit support to avoid a shortfall. This is referred to as the 2% prudential standard (NER clause 3.3.8(f)).

3.1.1. How does AEMO determine the level of credit support?

The NER requires market participants to provide credit support in the form of an unconditional guarantee from an acceptable credit support provider to AEMO for at least the pre-determined MCL value. The MCL, as described in clauses 5 and 6 of the Procedures, is calculated as:

$$\text{MCL} = \text{OSL} + \text{PM}$$

The outstandings limit (OSL) is prudential cover for the average 35 day settlement period and the prudential margin (PM) is prudential cover for a 7 day default/suspension process. AEMO uses estimated participant load and generation and forecast regional prices and volatilities as well as participant-specific risk adjustment factors to calculate the OSL and PM and hence MCL for each participant.

3.2. Stand-alone power systems

Regulated Stand-Alone Power Systems (SAPS) are electricity supply arrangements that are owned, operated or controlled by a distributor. They are typically used in remote communities out of reach of existing power lines, or for communities that have lost access to the network because of line breaks caused by bushfires or other natural disasters. SAPS typically comprise solar panels, batteries and back-up generators, and include both microgrids and individual power systems.

SAPS will be incorporated into the NEM in a staged process, and energy supplied in a regulated SAPS will be settled in the NEM from 30 May 2023 under the SAPS rule, and NER 3.3 (prudential requirements) will apply to any SAPS market participants from that date.

3.2.1. Financially responsible market participants in a SAPS

Under NER 2.3C.1, a market participant who intends to supply electricity from one or more generating units to a stand-alone distribution system in a regulated SAPS may be registered by AEMO as a SAPS Resource Provider. A SAPS Resource Provider must sell and purchase all energy respectively sent out and consumed at its generation connection point through the NEM wholesale exchange.

Each connection point to which energy is supplied in a SAPS must also be classified as a market connection point of a registered Market Participant.

For NEM market and settlement purposes, the electrical energy flowing in a SAPS (both generation and consumption) is defined as 'SAPS energy', and is settled under NER 3.15.

3.2.2. SAPS settlement price

Under NER clause 3.21.2, AEMO will determine and publish the SAPS settlement price for each regional reference node for each financial year in advance. The price setting approach for the SAPS settlement price uses a simple calculation based on historical wholesale prices, with adjustments. The SAPS settlement price will be paid by retailers to AEMO, and then by AEMO to SAPS generators, in settlement.

The SAPS settlement price will also be used to determine the prudential requirements for SAPS market participants.

3.3. Description of proposal

As for other market participants, NER 3.21.1(b)(1) confirms that prudential obligations will also apply to SAPS market participants, ensuring that AEMO meets its obligations under the Rules relating to the 2% prudential standard. This means that SAPS market participants will have to have their prudential settings, including their maximum credit limit (MCL) assessed similarly to other market participants as outlined in the Procedures.

Because the SAPS settlement price is fixed and published annually in advance, rather than being determined by a five-minute market schedule, the MCL calculation for SAPS energy can be relatively straightforward, as no price forecasting methodology is required. The proposed changes to the Procedures are described in the paragraphs below.

New SAPS related terms for estimated SAPS load (EL_{RS}), estimated SAPS generation (EG_{RS}) and the SAPS settlement price for each region ($SAPSSP_R$) must therefore be added into the OSL, PM and typical accrual calculations to allow the prudential settings for SAPS market participants to be determined.

For the OSL and PM calculations (section 5 and 6 of the Procedures respectively), the SAPS inclusive value of energy load calculation will be:

$$VEL_R = ((EL_R \times P_R \times PRAF_{L,R} \times VFOSL_R) + (EL_{RS} \times SAPSSP_R)) \times (GST + 1)$$

For the OSL and PM calculations, the SAPS inclusive value of energy generation calculation will be :

$$VEG_R = ((EG_R \times P_R \times PRAF_{G,R} \times VFOSL_R) + (EG_{RS} \times SAPSSP_R)) \times (GST + 1)$$

Similarly, for the Typical Accrual calculation under section 7 of the Procedures, the SAPS components will be included as follows:

$$\text{Typical daily value of energy load} = ((EL_R \times P_R) + (EL_{RS} \times SAPSSP_R)) \times (GST + 1)$$

$$\text{Typical daily value of energy generation} = ((EG_R \times P_R) + (EG_{RS} \times SAPSSP_R)) \times (GST + 1)$$

Note that in the above calculations, for SAPS market participants, the non-SAPS related load/generation (i.e. EL_R and EG_R) will be zero, thus only the SAPS related terms will be used in the actual calculations.

Apart from the additional SAPS related terms in the above calculations, all other aspects of the Procedures will apply to SAPS market participants as they do for other market participants.

3.3.1. Timing considerations

Although not required by the NER, AEMO typically reviews market participant MCLs on a 'seasonal' basis, to be effective for the start of December (summer season), start of April (winter season) and start of September (shoulder season). The SAPS settlement price will be determined and published by AEMO for a financial year once all the data for the previous financial year is available. As such, the new SAPS settlement price for a financial year is expected to be available during July of that year, part way through the winter season, with the AEMO undertaking its normal shoulder reviews in August to take effect in September. Since the SAPS settlement price is a historical average over a 12 month period, the application of the previous year's price for a short period is not expected to result in significant differences to prudential settings or impact the prudential standard. As a matter of process, AEMO will therefore use the SAPS settlement price that is published at the time of determining or reviewing the prudential settings.

3.3.2. How the proposal meets the objectives

The proposal is necessary in order for AEMO to be able to determine prudential requirements for SAPS market participants as required by the SAPS rule, to meet the NER prescribed 2% prudential standard.

The proposal adopts a simplified version of the prudential settings calculation for SAPS market participants that reflects the SAPS market rules and is otherwise consistent with the calculation already in place for all other market participants. AEMO considers it is the most logical and straightforward way of incorporating SAPS energy into the prudential settings with a pre-determined settlement price (i.e. the SAPS settlement price).

As the proposal is a simplified version of the prudential requirements calculation process that is already in place for other market participants, AEMO considers that it meets the NER requirements in a way that is consistent with the NEO. In particular, the proposal:

- Represents a familiar process for existing participants who choose to participate in a SAPS.
- Ensures that the prudential requirements for SAPS market participants are equitable and contribute proportionately to achieving the prudential standard.
- Has no effect on market participants who do not participate in a SAPS.
- Requires relatively straightforward changes to AEMO systems and processes that will be cost effective to implement.

3.3.3. Alternative options

Prudential obligations will apply to SAPS market participants under NER 3.21.1(b)(1), ensuring that AEMO meets its obligations under the Rules relating to the 2% prudential standard. The proposal is the most straightforward way of determining SAPS market participant prudential requirements and as such no alternative options were identified.

3.3.4. Summary of amendments

AEMO proposes to amend the Procedures as follows:

- Clause 1.2.1 – add a definition of 'current SAPS settlement price' to reflect the use of the published price at the time of calculation.
- Clause 4.3.6 (new) - brief description of how SAPS are accounted for in the methodology.

- Clause 5 – add in the SAPS terms to the value of energy load (VEL_R) calculation and the value of energy generation (VEG_R) calculation.
- Clause 5 – add in the definitions for SAPS load (EL_{RS}), SAPS generation (EG_{RS}) and the SAPS settlement price for each region ($SAPSSP$).
- Clause 6 – add in the SAPS terms to the value of energy load (VEL_R) calculation and the value of energy generation (VEG_R) calculation.
- Clause 6 – add in the definitions for SAPS load (EL_{RS}), SAPS generation (EG_{RS}) and the SAPS settlement price for each region (P_{RS}).
- Clause 7 – add in the SAPS terms to the typical daily value of energy load (VEL_R) calculation and the typical daily value of energy generation (VEG_R) calculation.
- Clause 7 – add in the definitions for SAPS load (EL_{RS}), SAPS generation (EG_{RS}) and the SAPS settlement price for each region (P_{RS}).

3.3.5. Effective date

Consistent with the SAPS rule, the Procedures must be amended to incorporate prudential requirements for SAPS market participants by 30 May 2023. AEMO is aiming to complete this consultation and finalise the amendments before the end of 2022, however, to facilitate the necessary changes to AEMO systems.

3.3.6. Issues for consultation

AEMO seeks feedback from market participants or interested parties on the following matters (or any other the respondent deems relevant to this consultation):

1. Is there any additional clarifying information required in the Procedures for the calculation of prudential requirements for SAPS market participants?
2. Are there any additional options for the calculation of prudential requirements for SAPS market participants that AEMO should consider?
3. Are there any unintended/adverse consequences of the outlined calculation of prudential requirements for SAPS market participants as described in the Procedures?

4. Draft Proposal

AEMO has published the draft amended Procedures with this draft report at:

<https://aemo.com.au/consultations/current-and-closed-consultations/credit-limit-procedures-consultation-saps>

AEMO's draft determination is to make the amendments in that form, with an effective date of 30 May 2023.

Appendix A. Glossary

Term or acronym	Meaning
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator Limited
MCL	Maximum Credit Limit
NEM	National Electricity Market
NER	National Electricity Rules
OSL	Outstandings Limit
PM	Prudential Margin
PRAF	Participant Risk Adjustment Factor
Procedures	Credit Limit Procedures
SAPS	Stand-alone power systems
SAPS rule	<i>National Electricity Amendment (Regulated stand-alone power systems) Rule 2022</i>