

WHOLESALE ELECTRICITY MARKET

PROCEDURE CHANGE PROPOSAL NO: AEPC_2021_04

WEM PROCEDURE: PRUDENTIAL REQUIREMENTS

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EXECUTIVE SUMMARY

Change requested by:	AEMO
Date submitted:	17 December 2021
Type of Procedure Change Proposal:	Amendment
Market Procedures affected:	WEM Procedure: Prudential Requirements

The publication of this Procedure Change Proposal and the accompanying call for submissions, commences the Procedure Change Process conducted by AEMO to consider proposed amendments to the WEM Procedure: Prudential Requirements (Procedure) under the Wholesale Electricity Market Rules (**WEM Rules**).

On 20 August 2021, in accordance with clause 2.10.2 of the WEM Rules, Change Energy advised AEMO it considers an amendment to the Wholesale Electricity Market (WEM) Procedure: Prudential Requirements is required to review the Credit Limit determination due to inefficiencies in the current methodology. Specifically, Change Energy suggested AEMO reviews:

- the requirement under step 2.2.2. of the Procedure for AEMO to use up to 24 months of available data when determining a Market Participant's Anticipated Maximum Exposure (AME), a key input to the Credit Limit methodology; and
- the requirement under step 2.2.2. of the Procedure for AEMO to consider the AME as the sum of the 70-day maximum Non-STEM Settlement exposure and 15-day maximum STEM Settlement exposure, where these time periods are not necessarily aligned.

Change Energy considers the Procedure requires amendment, as AEMO should consider whether the current Credit Limit methodology, which sets the amount of Credit Support to be held by AEMO, truly represents the exposure of each participant to the market. If the amount of Credit Support held is too high, this may provide a barrier to market entry for small energy businesses and restrict the amount of funding available to established businesses to invest and become more competitive. If the amount of Credit Support held is too low, this may introduce a greater risk of short payments and in turn Default Levies as a result of a Market Participant failing to pay an Invoice.

Lowering the amount of Credit Support held, while ensuring appropriate management of the prudential risk, would lower the overhead costs of market participation and encourage more competition in the WEM, without materially increasing market exposure risk. This would better achieve Wholesale Market Objectives (b) and (d).

AEMO has considered the issues raised by Change Energy, and has assessed various options to address them, and proposes to:

- reduce the period used to determine Credit Limits from 24 months to 12, and
- correlate a Market Participant's exposure in the STEM and Non-STEM markets.

AEMO considered a further three Procedure amendments (changing the assessed number of days, recovery of an individual invoice and accounting for Adjustment Invoices) but has decided not to address these issues at this point in time due to the increased complexity it introduces to the process, alternative measures under the WEM Rules to ameliorate risk in the market (e.g. dynamic prudential monitoring and the suspension process) and structural changes to settlement processes that will be introduced through the WEM Reform.

AEMO has also taken the opportunity to streamline the Procedure, and make minor clarifications and administrative changes to reflect the current version of the WEM Rules.



AEMO notes the proposed changes would decrease the total amount of Credit Support held by AEMO for all Market Participants by around \$16.5 million¹. Any reduction in Credit Support increases the risk of a short payment and default levies should a Market Participant fail to pay an invoice.

AEMO considers the draft proposed changes:

- maintain alignment with the WEM Rules and the Procedure;
- result in Credit Limits that more accurately reflect a participant's exposure in the market; and
- are consistent with the Wholesale Market Objectives, and may better address objectives (b) and (d) as they lower the cost of participation which may in turn increase competition in the WEM.

AEMO held a workshop in October and an AEMO Procedure Change Working Group meeting in November to discuss the options and implications of each of the five issues. No concerns were raised.

AEMO is seeking comment and feedback on:

- whether participants consider the proposed changes reflect an appropriate balance between the cost of maintaining Credit Support and the level of market risk;
- whether the draft proposed changes to the Procedure effectively implement AEMO's intended changes; and
- any other issues that AEMO needs to address in this Procedure, given the parameters set out in the WEM Rules.

AEMO invites stakeholders to suggest alternative options for drafting, where they consider these would improve the proposed Procedure or better meet the Wholesale Market Objectives in section 122(2) of the *Electricity Industry Act 2004* (and clause 1.2.1 of the WEM Rules). AEMO also asks stakeholders to identify any unintended adverse consequences of the proposed amended Procedure.

Should any Market Participant want to know what the impact of the proposed changes are on its last Credit Limit determination, please contact the AEMO WA Market Operations team at wa.operations@aemo.com.au.

Stakeholders are invited to submit written responses on the proposed amended Procedure by 5:00 PM (Australian Western Standard Time) on 28 January 2022 in accordance with the call for submissions published with this Procedure Change Proposal. Pending stakeholder feedback, AEMO hopes to have the proposed amended Procedure in place prior to the next Credit Limit review in 2022.

¹ It should be noted that the reduction in Credit Limit determinations from Issues 1 and 2 are not mutually exclusive and therefore do not sum to exactly this total



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1. PROCEDURE CHANGE PROCESS

Clause 2.10 of the WEM Rules outlines the Procedure Change Process.

AEMO may initiate the Procedure Change Process in respect of WEM Procedures (including Power System Operation Procedures and the Monitoring and Reporting Protocol) for which it is responsible by developing a Procedure Change Proposal. Rule Participants may notify AEMO where they consider an amendment or replacement of an AEMO WEM Procedure would be appropriate.

If an Amending Rule requires AEMO to develop new WEM Procedures or to amend or replace existing WEM Procedures, then AEMO is responsible for the development, amendment, or replacement of WEM Procedures so as to comply with the Amending Rule.

Under clause 2.9.3 of the WEM Rules, WEM Procedures:

- (a) must:
 - (i) be developed, amended or replaced in accordance with the process in the WEM Rules;
 - (ii) be consistent with the Wholesale Market Objectives; and
 - (iii) be consistent with the WEM Rules, the Electricity Industry Act and the WEM Regulations; and
- (b) may be amended or replaced in accordance with section 2.10 of the WEM Rules and must be amended or replaced in accordance with section 2.10 of the WEM Rules where a change is required to maintain consistency with Amending Rules.

The Wholesale Market Objectives are:

- (a) to promote the economically efficient, safe and reliable production and supply of electricity and electricity related services in the South West interconnected system;
- (b) to encourage competition among generators and retailers in the South West interconnected system, including by facilitating efficient entry of new competitors;
- (c) to avoid discrimination in that market against particular energy options and technologies, including sustainable energy options and technologies such as those that make use of renewable resources or that reduce overall greenhouse gas emissions;
- (d) to minimise the long-term cost of electricity supplied to customers from the South West interconnected system; and
- (e) to encourage the taking of measures to manage the amount of electricity used and when it is used.

AEMO has published this Procedure Change Proposal in accordance with the Procedure Change Process in clause 2.10 of the WEM Rules.

AEMO’s indicative timeline for this consultation is outlined below. Dates may be adjusted depending on the number and complexity of issues raised in submissions and any meetings with stakeholders.

Process Stage	Indicative date
Procedure Change Proposal published	17 December 2021
Submissions due on Procedure Change Proposal	28 January 2022
Procedure Change Report published	21 February 2022
Proposed commencement of amended WEM Procedure	28 February 2022



Prior to the submission's due date, stakeholders may request a meeting with AEMO to discuss the issues and proposed changes raised in this Procedure Change Proposal.

2. BACKGROUND

2.1. Regulatory requirements

Clause 2.43.1 of the WEM Rules states:

AEMO must develop a WEM Procedure dealing with:

- a) *determining Credit Limits;*
- b) *assessing persons against the Acceptable Credit Criteria;*
- c) *Credit Support arrangements, including:*
 - i. *the form of acceptable guarantees and bank letters of credit;*
 - ii. *where and how it will hold Security Deposits and how the costs and fees of holding Security Deposits will be met;*
 - iiA. *the circumstances that may require Credit Support to be replaced for the purposes of clause 2.38.3; and*
 - iii. *the application of monies drawn from Credit Support in respect of amounts owed by the relevant Market Participant to AEMO.*
- d) *calculation of Trading Margins;*
- e) *the list of factors to be taken into account for assessing the expected value of transactions;*
- f) *issuing of Margin Calls; and*
- g) *other matters relating to clauses 2.37 to 2.42.*

The current version of the Market Procedure: Prudential Requirements developed under clause 2.43.1 commenced on 24 August 2020.

2.2. Context for this consultation

2.2.1. Overview of Prudential Requirements in the WEM

Under the WEM Rules, AEMO may revise the Credit Limit of a Market Participant at any time and must review the Credit Limit of a Market Participant at least once each year [WEM Rules clauses 2.37.2 and 2.37.3]. In practice, AEMO reviews the Credit Limit of all Market Participants twice per year and undertakes additional reviews as required.

Prudential security in the form of Credit Support from an entity that meets the Acceptable Credit Criteria is an essential risk management mechanism, intended to protect all Market Participants operating in the WEM.

Market Participants must ensure that, at all times, AEMO holds the benefit of Credit Support that is no less than their most recently determined Credit Limit [WEM Rules clause 2.38.1]. Any failure to provide the required Credit Support by the date specified by AEMO is a Suspension Event [WEM Rules clause 9.23.1].

Credit Support is used by AEMO in the event that a Market Participant fails to make a payment under the WEM Rules.

The Credit Limit Methodology is established in clauses 2.37.4 to 2.37.6 of the WEM Rules:



2.37.4 *Subject to clauses 2.37.5 and 2.37.6, the Credit Limit for a Market Participant is the dollar amount determined by AEMO as being equal to the amount that AEMO reasonably expects will not be exceeded over any 70 day period, where this amount is:*

- a) *the maximum net amount owed by the Market Participant to AEMO over the 70 day period;*
- b) *determined by applying the factors set out in clause 2.37.5; and*
- c) *calculated in accordance with the WEM Procedure referred to in clause 2.43.1.*

2.37.5 *When determining a Market Participant's Credit Limit AEMO must take into account:*

- a) *the Market Participant's historical level of payments based on metered quantity data for the Market Participant, or an estimate of the Market Participant's future level of payments based on its expected generation and consumption quantities where no metered quantity data is available;*
- b) *the Market Participant's historical level of Bilateral Contract sale and purchase quantities as reflected in historical Bilateral Contract submissions, or an estimate of the Market Participant's expected level of Bilateral Contract sale and purchase quantities where no historical Bilateral Contract submission data is available;*
- c) *the Market Participant's historical level of STEM settlement payments under clause 9.6.1, or an estimate of the Market Participant's future level of STEM settlement payments based on its expected STEM sales and purchases where no historical STEM settlement payment data is available;*
- d) *the Market Participant's historical level of Reserve Capacity settlement payments under clause 9.7.1, or an estimate of the Market Participant's future level of Reserve Capacity settlement payments based on its number of Capacity Credits where no historical Reserve Capacity settlement payment data is available;*
- e) *the Market Participant's historical level of Balancing Settlement payments under clause 9.8.1, or an estimate of the Market Participant's future level of Balancing Settlement payments based on its expected transactions in the Balancing Market where no historical Balancing Settlement payment data is available;*
- f) *the Market Participant's historical level of Ancillary Service settlement payments under clause 9.9.1, or an estimate of the Market Participant's future level of Ancillary Service settlement payments based on its expected Ancillary Service provision where no historical Ancillary Service settlement payment data is available;*
- g) *the Market Participant's historical level of Outage Compensation settlement payments under clause 9.10.1, or an estimate of the Market Participant's future level of Outage Compensation settlement payments based on its expected level of Outages where no historical Outage Compensation settlement payment data is available;*
- h) *the Market Participant's historical level of Reconciliation settlement payments under clause 9.11.1, or an estimate of the Market Participant's future level of Reconciliation settlement payments where no historical Reconciliation settlement payment data is available;*
- i) *the Market Participant's historical level of Market Participant Fee settlement payments under clause 9.13.1, or an estimate of the Market Participant's future level of Market Participant Fee settlement payments based on its expected generation or consumption quantities where no historical Market Participant Fee settlement payment data is available;*
- j) *the length of the settlement cycle; and*
- k) *any other factor that AEMO considers relevant.*

2.37.6 *In determining a Market Participant's Credit Limit under clause 2.37.4, AEMO may, to the extent it considers relevant, take into account a minimum amount that AEMO considers would adequately protect the Wholesale Electricity Market if a Suspension Event were to occur in relation to that Market Participant.*

The purpose of Credit Limits as described in clause 2.37.6 of the WEM Rules is to “adequately protect the Wholesale Electricity Market if a Suspension Event were to occur”. Failure to pay an invoice is defined as a Suspension Event.

The current Credit Limit methodology relies on the Anticipated Maximum Exposure (AME) as defined in the Market Procedure. AME is calculated as the sum of the 70-day maximum Non-STEM Settlement exposure (i.e. exposure in the following settlement segments: Balancing Market, Ancillary Services, reserve capacity, market participant fee, outage compensation settlement and reconciliations) and 15-day maximum STEM Settlement exposure, where these time periods are not necessarily aligned.

Figure 1 shows the process whereby a Market Participant fails to pay an invoice and AEMO draws down on the Credit Support held to settle the market.

Figure 1 Use of Credit Support in the WEM

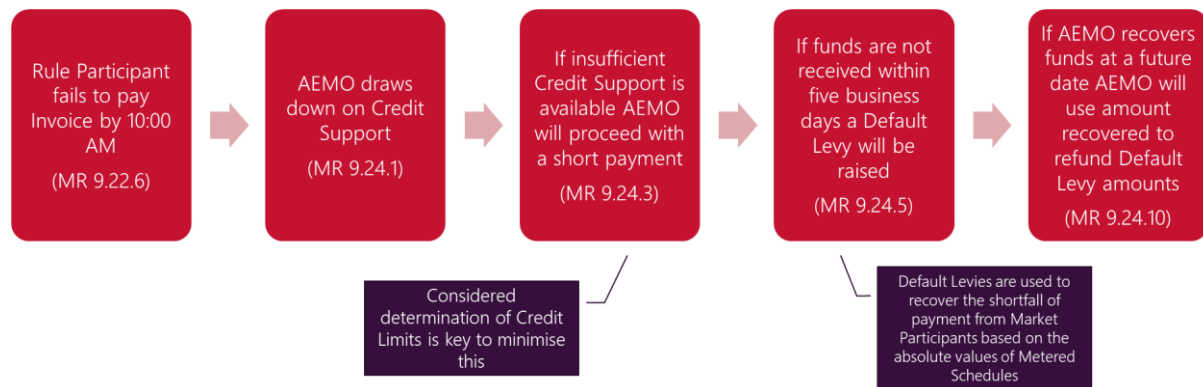


Figure 1 shows the importance of an adequate level of Credit Support. Where a Market Participant fails to pay an invoice, AEMO draws down on the Credit Support held to cover the Market Participant’s invoice amount and settle the market. If insufficient Credit Support is available, AEMO proceeds with a short payment to parties receiving funds on settlement day. If funds are not received within five Business Days, a Default Levy is then raised to cover the amount of any short payment. The lower the amount of Credit Support held by AEMO, the higher the risk of a shortfall and consequently the higher the potential Default Levy amount is likely to be.

It should be highlighted that the WEM Rules and AEMO’s operational processes have a number of key mitigations in place to manage the risk of short payment in the market and subsequent Default Levies, these are shown in Figure 2. While default events do occur from time to time in the WEM, these have been managed through drawing down on Credit Support or resolved through late payment. Since the introduction of the Balancing Market there has not been a default event that has resulted in short payment.

Figure 2 Key mitigations of prudential risk

Six Monthly Credit Limit Review	Dynamic Outstanding Amount	87% Prudential Factor
<ul style="list-style-type: none">• AEMO must review each Market Participants Credit Limit at least once each year (WEM Rules clause 2.37.3)• Operational practice is for AEMO to review every six months in addition to reviews triggered by Trading Limit excursions or Margin Calls	<ul style="list-style-type: none">• Since September 2020 AEMO has been calculating a dynamic Outstanding Amount through the WEM PaSS• The dynamic Outstanding Amount provides a good estimate to support AEMO's Margin Call decisions	<ul style="list-style-type: none">• A Market Participants Trading Limit is set as 87% of the provided Credit Support• The Prudential Factor is set in the WEM Rules.• The Prudential Factor may provide time for the Market Participant to take appropriate actions or be managed out of the market after a Margin Call or Suspension event

AEMO has considered the balance between the cost of Market Participants providing Credit Support and the risk of increased Default Levies arising from the Credit Limit methodology. More information on the impact of each change considered is provided in section 2.2.3.

2.2.2. Drivers of this Procedure Change Proposal

In 2017, the Market Advisory Committee (MAC) established a 'Market Development Issues List', designed to capture issues with the design of the WEM that Market Participants considered should be reviewed and/or amended. Through this process, Bluewaters Power raised an issue with the design of the prudential arrangements that could give rise to AEMO holding a higher amount of Credit Support than necessary (either as a security deposit or a bank guarantee).² The issue was placed on hold while AEMO completed its 'Reduction of Prudential Exposure' (RoPE) project. The RoPE project was completed in August 2020.

At the August 2021 MAC meeting³, members discussed whether the issue of AEMO holding more Credit Support than necessary can be closed. The RoPE project made changes to the calculation of the Outstanding Amount, which allows Market Participants and AEMO to better manage the prudential requirements, therefore MAC members questioned whether there was still a need to address the Credit Support issue.⁴

Mr Geoff Gaston, a Market Customer representative on MAC and CEO of Change Energy, suggested the issue should remain open. Mr Gaston said that the opportunity should be taken to make changes to the prudential requirements to ensure the amount of Credit Support held by AEMO truly represents the exposure of each Market Participant to the market. This would lower the cost of participation removing a barrier to growth of small energy businesses and encourage more competition in the WEM.

Mr Martin Maticka, one of the AEMO MAC representatives noted that it is worthwhile investigating whether the amount of Credit Support held by AEMO is appropriate and best supports achievement of the Wholesale Market Objectives. Mr Maticka said AEMO could look at whether reducing the assessment period used to calculate the AME would assist in addressing this issue.

Following the August MAC meeting, on 20 August 2021 Mr Gaston met with AEMO to discuss the issue further and, in accordance with clause 2.10.2 of the WEM Rules, notified AEMO that Change Energy

² A description of Bluewaters Power's issue (issue number 22) as described in the issues list can be found on pages 23 and 24 of the August 2021 MAC meeting papers, available at: https://www.wa.gov.au/sites/default/files/2021-08/MAC%202021_08_10%20--%20Combined%20meeting%20papers.pdf

³ Pages 6 and 7 of the minutes of the August MAC meeting capture key points of this discussion. The minutes are available at: <https://www.wa.gov.au/sites/default/files/2021-09/MAC-2021-08-10-Minutes-FINAL.pdf>

⁴ It should be noted that a Rule Change Proposal is required to address Bluewaters Power's MAC-noted issue, and better align the amount of Credit Support with the Outstanding Amount. (A more time-relevant estimate of a Market Participant's exposure at any time), as highlighted would be preferred by Change Energy. However, AEMO considers this Procedure Change Proposal will go some way to addressing the issue of overestimated Credit Support raised by both parties within the parameters of the current WEM Rules.



considered an amendment of the WEM Procedure: Prudential Requirements was required. Specifically, Change Energy suggested AEMO reviews:

- the requirement under step 2.2.2. of the Procedure for AEMO to use up to 24 months of available data when determining a Market Participant's AME, a key input to the Credit Limit methodology; and
- the requirement under step 2.2.2. of the Procedure for AEMO to consider the AME as the sum of the 70-day maximum Non-STEM Settlement exposure and 15-day maximum STEM Settlement exposure, where these time periods are not necessarily aligned.

On 14 September 2021, in accordance with the requirements under clause 2.10.2A of the WEM Rules, AEMO published a notice advising of its decision to progress a Procedure Change Proposal, which considers whether to amend step 2.2.2 of the Procedure to vary the requirement for AEMO to:

1. use up to 24 months of available data when determining a Market Participant's AME; and
2. determine the AME as the sum of the 70-day maximum Non-STEM Settlement exposure and 15-day maximum STEM Settlement exposure, where these time periods are not necessarily aligned.

As with all Market Procedures, AEMO must ensure this Procedure Change Proposal is within the consistent with the WEM Rules (for example, clause 2.37.4 requires AEMO to determine Credit Limits using a 70-day period).

AEMO considers this Procedure Change Proposal will ensure the amount of Credit Support held by AEMO is more reflective of the exposure of each Market Participant in the WEM. However, any additional material changes would require amendments to the WEM Rules. Should stakeholders consider additional material changes are warranted, any stakeholder can submit a Rule Change Proposal to the Coordinator of Energy under the WEM Rules.

2.2.3. Issues considered by AEMO

AEMO considered five issues related to the calculation of Credit Support under the WEM Rules. The first two issues were raised by Change Energy in its request to progress a Procedure Change Proposal to the WEM Procedure: Prudential Requirements:

1. What assessment period should be used to calculate Credit Limits
2. The impact of the correlation on Non-STEM and STEM exposure on Credit Limits

AEMO identified a further three issues which warranted consideration in light of Change Energy's objective to better align the amount of Credit Support held by AEMO with a Market Participant's exposure in the WEM:

3. The number of days that should be used to calculate Credit Limits
4. Whether individual invoice amounts should be considered when setting Credit Limits
5. Whether adjustment invoices should be considered when setting Credit Limits

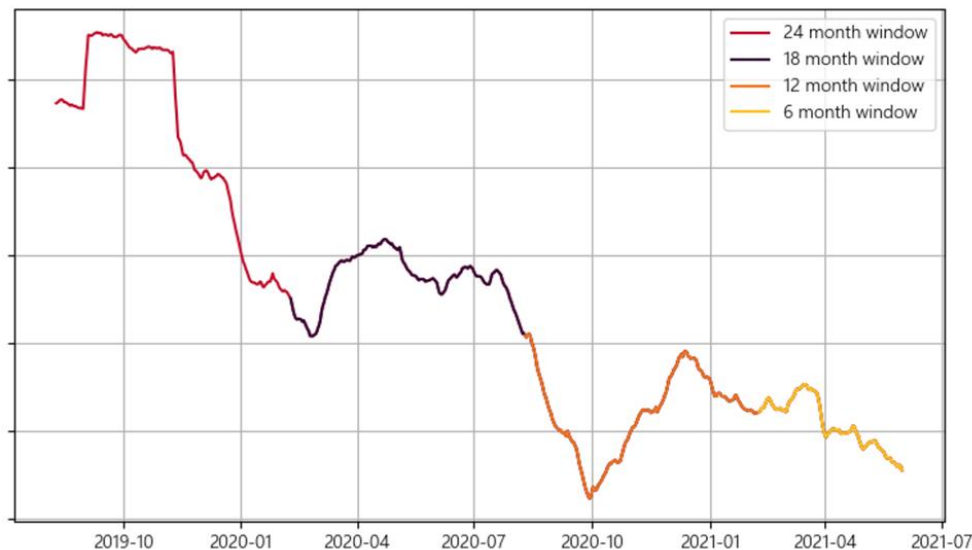
Each of these, together with AEMO's assessment and proposed Procedure amendment are discussed in the following sections.

Throughout the following section, changes in the amount of Credit Support held by AEMO is based on AEMO's recalculation and summation of the Credit Limits determined by AEMO for each Market Participant in the last Credit Limit assessment undertaken in August 2021. Should any Market Participant want to know what the impact of the proposed changes are on its last Credit Limit determination, please contact the AEMO WA Market Operations team at wa.operations@aemo.com.au.

Issue 1 – Assessment period

Step 2.2.2 of the Procedure currently requires AEMO to determine the Credit Limit for a Market Participant using a period of 24 months of STEM and Non-STEM Settlement data. This means Credit Limits may be based on settlement outcomes that are more than 12 months old. This may not appropriately reflect current market participation or trading outcomes (e.g. STEM trading, bilateral trading of energy and capacity), and therefore risk to the market. Figure 3 provides an example of such a change in participation.

Figure 3 Example of a Market Participant with a significant reduction in Non-STEM exposure



AEMO has conducted analysis to determine the frequency and impact of this type of change in market participation. AEMO finds that year-to-year variations in consumption tend to impact a Market Participant’s exposure to a lesser extent than market behaviours and “churn” of connection points.

AEMO considered three options and tested these with stakeholders:

1. Retain the assessment period at 24 months.
2. Reduce the assessment period to 12 months.
3. Reduce the assessment period to 6 months.

AEMO considered shortening the assessment period would improve the alignment of Credit Limits with contemporary market participation and reduce the time for a Market Participant changing behaviour to see the benefits through lower, more reflective Credit Support.

AEMO has considered whether the assessment period should be reduced to 12 or 6 months, and proposes to use a 12-month assessment period to ensure seasonal variation in supply and demand is accounted for. Furthermore, clause 2.37.3 of the WEM Rules requires AEMO to review each Market Participant’s Credit Limit at least once per year, but in practice AEMO aims to review Credit Limits once every 6 months to ensure Credit Limits reflect recent Settlement data.

AEMO estimates the proposed reduction in the Credit Limit assessment window from 24 to 12 months will reduce the overall amount of Credit Support held by AEMO for all Market Participants by \$13.4 million.

Stakeholders have not raised any concerns with the proposed reduction in the assessment period.

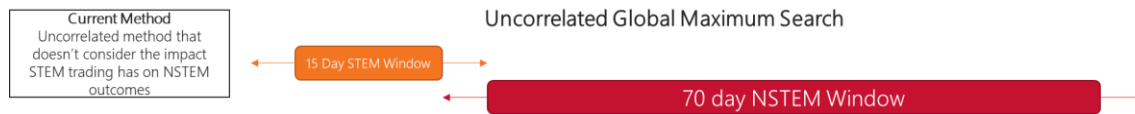
AEMO proposes to amend step 2.2 of the Procedure to address this issue.

Issue 2 – Correlation of STEM and Non-STEM exposure

Clause 2.37.5(a) to 2.37.5(i) of the WEM Rules require AEMO to consider historical settlement outcomes across all market segments. Step 2.2.2 of the Procedure currently requires AEMO to determine the Credit Limit for a Market Participant as the sum of the maximum STEM and Non-STEM exposures individually.

The current calculation does not consider the market design which links STEM and bilateral transactions, and participation in the Balancing Market (see Figure 4). As Change Energy highlighted, energy purchased in STEM will not be purchased in Non-STEM and therefore, by not correlating the maximum exposures, it will necessarily overstate each market Participant’s Credit Limit.

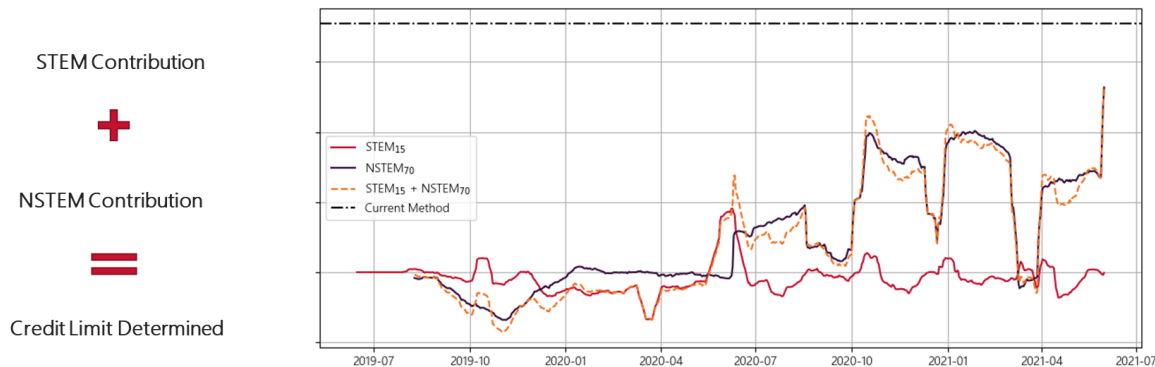
Figure 4 Current uncorrelated maximum exposures



AEMO considered whether aligning the Non-STEM and STEM exposure periods would improve the alignment of Credit Limits with contemporary market participation and reduce the time for a participant changing behaviour to see the benefits through lower, more reflective Credit Support.

AEMO’s assessment showed the correlation of the two settlement cycles would better represent what would be considered the exposure for the previous 70-day period as required under clause 2.37.4 of the WEM Rules. Figure 5 provides an example of the benefit of the correlation of Non-STEM and STEM exposures for the purpose of determining Credit Support. The Current Method line represents the current methodology used for Credit Limit determination which is the sum of the global maximum of NSTEM₇₀ and STEM₁₅. The proposed methodology is presented by the STEM₁₅ + NSTEM₇₀ line.

Figure 5 Impact of correlation of maximum exposures



AEMO proposes to correlate the Non-STEM and STEM exposures to improve the alignment of Credit Limits with contemporary market participation and reduce the time for a Market Participant changing behaviour to see the benefits through lower, more reflective Credit Support.

It should be highlighted that this change is aligned with the design of the new market arrangements being implemented as part of the WEM Reform program, whereby settlements, and therefore prudential requirements in both markets will be considered through one settlement cycle.

AEMO estimates the proposed correlation of Non-STEM and STEM exposure will reduce the overall amount of Credit Support held by AEMO by \$7.8 million.

Stakeholders have not raised any concerns with the proposed reduction in the assessment period.

AEMO proposes to amend step 2.2 of the Procedure to address this issue.



Issue 3 – Assessed number of days

Clause 2.37.4 of the WEM Rules requires AEMO to determine Credit Limits using a 70-day exposure window. In practice, Credit Limits are currently determined using 70 days of Non-STEM exposure and 15 days for STEM.

Through AEMO’s review of the Credit Limit determination process, it considered whether these windows were appropriate and best aligned Credit Limits with contemporary market participation. AEMO considered the minimum, maximum and average number of days over the last three years of the Settlement Cycle Timeline. The results are shown in Table 1.

Table 1 Number of days in the Settlement Cycle Timeline, FY2019-20 to FY2021-22

	Min	Max	Mean	Median
NSTEM	69	74	71.35	71
STEM	13	15	13.22	13

AEMO confirmed public holidays up to the commencement of the WEM Reform Programme in October 2023 align with AEMO’s assessment of the Settlement Cycle Timeline from the current and prior two financial years AEMO therefore proposes to maintain the current assessed number of days in the Credit Limit window for Non-STEM and STEM.

Stakeholders have not provided any feedback on this issue.

AEMO does not propose any amendments to the Procedure to change the number of days assessed to determine Credit Limits.

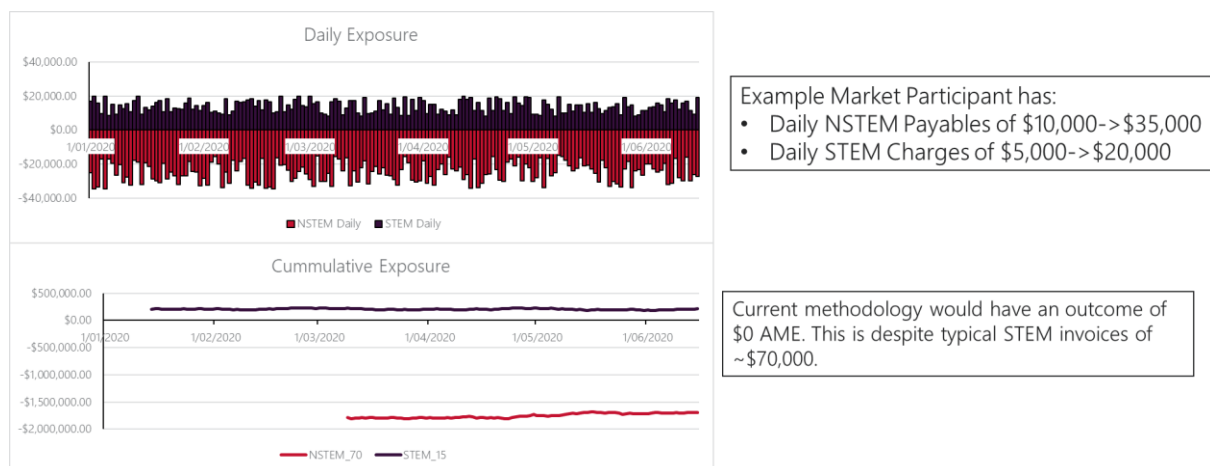
Issue 4 – Recovery of an individual invoice

Through this review of the Credit Limit determination process, AEMO noted the current method does not account for offsetting between market mechanisms or periods.

Offsetting between market mechanisms occurs when a Market Participant has a positive exposure (net charge) in one market mechanism which is offset by a negative exposure in another market mechanism (net payment).

The most common example of offsetting markets is where a Market Participant purchases a lot in STEM and so has significant charges, but also has significant payables for the Non-STEM mechanisms. Under the current method, these two settlement cycles are offset such that the AME is low or zero despite that participant having significant exposure in Non-STEM. Figure 6 shows this example.

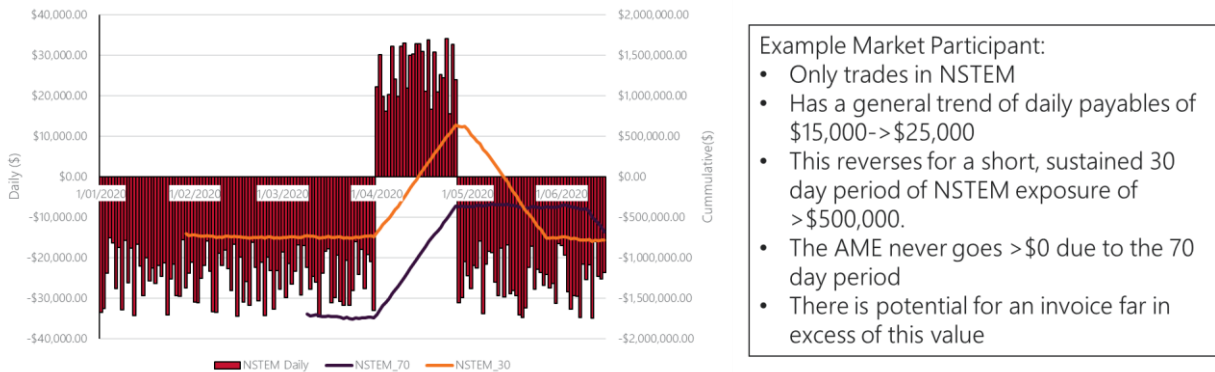
Figure 6 Example of the impact of offsetting markets



Offsetting periods are similar. This is where a Market Participant has sustained periods of negative exposure (net payment) over an invoiceable period, offset by a surrounding period of positive exposure (net charge).

The most common example of this issue is where a Market Participant is affected by a generator outage. Under the current method, these two periods are offset such that the AME is zero despite the period of high Non-STEM exposure. Figure 7 shows this example.

Figure 7 Example of the impact of offsetting periods



AEMO has assessed the merits of addressing this issue. Key considerations include:

- This issue has existed since Balancing Market commencement in 2012.
- The WEM Rules do not specifically require the Credit Limit methodology to consider this issue.
- Market Participants can offset STEM and Non-STEM exposure without the cost of providing additional Credit Support.
- Addressing this issue through the Credit Limit methodology may mitigate the risk of individual market mechanism or invoice exposure.
- Addressing this issue would result in significant complexity in the Credit Limit method.
- Changing the calculation to address this issue would result in a \$1 million increase in overall Credit Support held by AEMO (only for those Market Participants with this type of trading behaviour historically).
- There are other processes under the WEM Rules that allow AEMO to use future invoices to recover and refund Default Levies (see section 2.2.1 of this proposal) once the Market Participant is suspended from operating in the WEM.⁵
- Ongoing monitoring of a Market Participants' Outstanding Amount may provide an opportunity identify this type of issue to mitigate the risk.

Stakeholders have not provided any feedback on this issue.

Based on these considerations, AEMO does not propose any amendments to the Procedure to account for individual invoices at this stage.

Issue 5 – Inclusion of adjustment invoices

⁵ Where this issue arises, AEMO will draw down on Credit Support to the extent possible, then raise a Default Levy and commence the suspension process. At this point, the WEM Rules will allow AEMO to withhold a future payable invoice to the suspended Market Participant and refund the Default Levy amount. The risk is the time lag between the Suspension Event and the future invoice being withheld.



The Credit Limit method does not currently directly consider Adjustment Invoice amounts. There is therefore a risk that AEMO does not hold sufficient Credit Support to cover a default on an adjustment.

AEMO's current operational practice is to set a minimum Credit Limit of \$5,000 for Market Participants in accordance with clause 2.37.6 of the WEM Rules. This is because:

- Administering the short payment process is complex and would require a significant amount of administrative effort.
- Analysis shows that around 80% of all payable adjustment invoices over the last two years are less than \$5,000.
- AEMO's view is that a minimum Credit Limit is a prudent amount, with minimal impact on Market Participants, to avoid the administrative costs of the short payment process if a Default Event occurs.

It should also be highlighted it would be difficult for AEMO to forecast an Adjustment Invoice amount in advance in order to include it in a Credit Limit determination. Adjustments often occur because of constrained payment reversals, or updated metering or SCADA data. This makes the inclusion of an amount for future Adjustment Invoices exceptionally challenging. Further, the WEM Rules do not specifically require the Credit Limit methodology to consider this issue.

Stakeholders have not provided any feedback on this issue.

Based on these considerations, AEMO does not propose any amendments to the Procedure to include adjustment invoices in the determination of Credit Limits.

2.3. Consultation to date

On 7 October 2021, AEMO held a workshop with interested stakeholders at which it discussed each of the five key issues for consideration together with the potential options and overall market impact of each. Stakeholders did not raise any concerns or suggested changes during or after that workshop.

On 30 November 2021, AEMO held an AEMO Procedure Change Working Group meeting to discuss the proposed changes to the Procedure. As part of this process, AEMO provided the rationale behind each proposed amendment, and sought feedback on:

- whether Market Participants consider the proposed changes reflect an appropriate balance between the cost of maintaining Credit Support and the level of market risk, particularly in relation to AEMO's proposal to not include changes to account for issues 4 and 5;
- whether the draft proposed changes to the Procedure effectively implement AEMO's intended changes stated in the attached presentation; and
- any other issues that AEMO needs to address in this Procedure, given the parameters set out in the WEM Rule.

No concerns or suggested changes were raised in the meeting. AEMO also invited feedback following that meeting, but none has since been received.

Draft minutes of the working group meeting have been sent to meeting attendees and are available on request. When they are finalised they will be available on AEMO's Procedure Working Group meeting consultation page at: <https://www.aemo.com.au/consultations/industry-forums-and-working-groups/list-of-industry-forums-and-working-groups/wem-aemo-procedure-change-working-group>.



3. PROPOSED PROCEDURE CHANGE

3.1. Detail of the proposed procedure change

AEMO proposes to amend existing section 2.2 (to be renumbered to 2.1) for AEMO to calculate a participant's AME:

- as the highest overall exposure in the WEM (i.e. accounting for the correlation in STEM and Non-STEM exposure) instead of the sum of the highest STEM and highest Non-STEM exposure in the credit limit window (addressing Issue 2); and
- using a 12-month assessment window instead of 24 months of data (addressing Issue 1).

AEMO has taken this opportunity to streamline the Procedure by removing existing sections 2.3 to 2.6 and consolidate the steps taken by AEMO to calculate Credit Limits for Market Participants with fewer than 3 months of data available, with the standard process. It should be highlighted that AEMO does not propose to change the data required to be provided by these Market Participants, or AEMO's ability to estimate data where insufficient information is available.

AEMO has also sought to provide further clarification in relation to the timing of the provision of Credit Support. AEMO proposes to amend section 3.3 to clarify that the effective date of the Credit Support may be prior to a Commissioning Test where a Facility's Reserve Capacity Obligation Quantity becomes applicable prior to commissioning for any reason, in line with the participant's exposure to Capacity Credit Refunds.

As part of this Procedure Change Proposal, AEMO proposes to make minor and administrative amendments throughout, to align with new terminology used in the WEM Rules, including for example amending 'Market Procedure' to 'WEM Procedure' and 'Market Web Site' to 'WEM Website', update WEM Rule references and update cross-references in the Procedure to reflect the proposed amendments.

These changes are shown as mark-ups in the attached draft Procedure. It should be highlighted AEMO does not propose to make any changes in relation to issues 3 to 5 (described above) as part of this Procedure Change Process as outlined in the attached presentation.

AEMO considers the proposed amendments:

- address the issues raised by Change Energy;
- maintain alignment with the WEM Rules and the Procedure;
- result in Credit Limits that more accurately reflect a Market Participant's exposure in the WEM;
- balance Market Participants' cost of maintaining Credit Support and the risk of short-payment and Default Levies; and
- are consistent with the Wholesale Market Objectives, and may better address objectives (b) and (d) as they lower the cost of participation which may in turn increase competition in the WEM.

AEMO expects the proposed changes would reduce Credit Limits across the market by \$16.5 million based on the last Credit Limit review. AEMO currently holds around \$81 million of Credit Support for all Market Participants in the WEM.

3.2. Proposed drafting

AEMO has published a draft of the WEM Procedure – Prudential Requirements incorporating the changes AEMO proposes for consultation. Clean and change-marked versions are available at: https://aemo.com.au/consultations/current-and-closed-consultations/aepc_2021_04



3.3. Wholesale Market Objective assessment

The steps outlined in the proposed amended WEM Procedure describe how Rule Participants will fulfil their obligations under the WEM Rules.

AEMO considers that the WEM Procedure, if amended as proposed, would be consistent with the Wholesale Market Objectives, and may better address objectives (b) and (d) as they lower the cost of participation which may in turn increase competition in the WEM.

4. SUMMARY OF MATTERS FOR CONSULTATION

In summary, AEMO seeks comment and feedback on:

- whether Market Participants consider the proposed changes reflect an appropriate balance between the cost of maintaining Credit Support and the level of market risk;
- whether the draft proposed changes to the Procedure effectively implement AEMO's intended changes; and
- any other issues that AEMO needs to address in this Procedure, given the parameters set out in the WEM Rules.

AEMO also invites stakeholders to suggest alternative options for drafting, where they consider these would improve the proposed Procedure or better meet the Wholesale Market Objectives.

Stakeholders are invited to submit written responses on the proposed amended Procedure by 5:00 PM (Australian Western Standard Time) on 28 January 2022 accordance with the call for submissions published with this Procedure Change Proposal. Pending stakeholder feedback, AEMO aims to have the proposed amended Procedure in place prior to the next all-market Credit Limit review in 2022.

Should any Market Participant want to know what the impact of the proposed changes are on its last Credit Limit determination, please contact the AEMO WA Market Operations team at wa.operations@aemo.com.au.

Stakeholders with general questions in relation to the proposed amended Procedure or this Procedure Change Proposal can contact AEMO via email at wa@aemo.com.au. All correspondence in relation to this Procedure Change Proposal must be entitled "AEPC_2021_04: WEM Procedure – Prudential Requirements [Name of the submitting company or individual]".