

Rule Change Notice: Reduction of the prudential exposure in the Reserve Capacity Mechanism (RC_2017_06)

This notice is given under clause 2.5.7 of the Wholesale Electricity Market (WEM) Rules (Market Rules).

Submitter: Martin Maticka, Australian Energy Market Operator

Date submitted: 17 July 2017

The Rule Change Proposal

The Australian Energy Market Operator (AEMO) has identified a prudential risk in the WEM relating to Market Customers' Individual Reserve Capacity Requirement (IRCR) obligations. The Credit Support held for any Market Customer with an IRCR, as required by the Market Rules, is unlikely to be sufficient to cover all prospective amounts owed to AEMO in the event of a default under section 9.23 of the Market Rules. In that situation, the defaulting Market Customer's liability would be recovered from all of the other non-defaulting Market Participants.

The current prudential requirements only ensure sufficient Credit Support is held by AEMO when a Market Participant's Outstanding Amount accurately reflects the amount it would owe in the event of a default. The Outstanding Amount calculation in clause 2.40.1 of the Market Rules underestimates prospective amounts a Market Participant would owe in respect of Reserve Capacity Mechanism (RCM) related payments on any given day for two reasons:

- following the date it defaults, a Market Customer will continue to incur RCM related charges for up to approximately 160 days instead of approximately 70 days as covered by the prudential requirements; and
- the Outstanding Amount calculation assumes the level of historical bilateral Capacity Credit Allocations will remain the same, although this may not be the case for several reasons.

While amending the Market Rules to require additional Credit Support from Market Customers would mitigate the identified prudential risk, it would also tie up additional working capital, representing a cost to Market Participants and ultimately consumers.

AEMO's Rule Change Proposal seeks to reduce the need for any additional Credit Support by making the following changes to the Market Rules:

- a change to the responsible party reference month in the IRCR calculation from month n-3 to month n, to reduce the period of time an IRCR liability is held by three months; and
- amendments to the Capacity Credit Allocation process, to allow Capacity Credit Allocations to be made by Market Generators and accepted by Market Customers prior to

the Market Customers incurring the IRCR liability (where these Capacity Credit Allocations cannot be reversed by AEMO without consideration of the prudential implications).

The proposal also includes several consequential amendments to support the implementation of the two main changes.

AEMO notes in the Rule Change Proposal that it also intends to progress a Procedure Change Proposal relating to the Market Procedure: Prudential Requirements, to complement these changes and improve the responsiveness of the Outstanding Amount calculation.

The Rule Change Panel notes that the proposed amendments affect Protected Provisions and so are subject to Ministerial approval.

Appendix 1 contains the Rule Change Proposal and gives complete information about:

- the proposed amendments to the Market Rules;
- relevant references to the Market Rules and any proposed specific amendments to those clauses; and
- the submitter's description of how the proposed amendments would allow the Market Rules to better address the Wholesale Market Objectives.

Decision to progress the Rule Change Proposal

The Rule Change Panel has decided to progress this Rule Change Proposal on the basis that its preliminary assessment indicates that the proposal is consistent with the Wholesale Market Objectives.

Timeline

This Rule Change Proposal will be progressed using the Standard Rule Change Process, described in section 2.7 of the Market Rules.

The projected timeline for progressing this proposal is:



Please note that, as published in the extension notice of 26 July 2017:

- the first submission period has been extended beyond the usual 30 Business Days to provide Market Participants with sufficient time to consider the proposal; and
- the period for the preparation of the Draft Rule Change Report has been extended beyond the usual 20 Business Days to allow the Rule Change Panel sufficient time to consider the

submissions received in the first submission period and prepare its Draft Rule Change Report.

All other dates have been adjusted accordingly.

Call for submissions

The Rule Change Panel invites interested stakeholders to make submissions on this Rule Change Proposal. The submission period is 35 Business Days from the Rule Change Notice publication date. Submissions must be delivered to the RCP Secretariat by **5:00 PM** on **Wednesday, 13 September 2017**.

The Rule Change Panel prefers to receive submissions by email, using the submission form available at: <https://www.erawa.com.au/rule-change-panel/make-a-rule-change-submission> sent to rcp.secretariat@rcpwa.com.au.

Submissions may also be sent to the Rule Change Panel by post, addressed to:

Rule Change Panel

Attn: Executive Officer
C/o Economic Regulation Authority
PO Box 8469
PERTH BC WA 6849

Wholesale Electricity Market Rule Change Proposal

Rule Change Proposal ID: RC_2017_06
Date received: 17 July 2017

Change requested by:

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Date submitted:	17-July-2017
Urgency:	High
Rule Change Proposal title:	Reduction of the prudential exposure in the Reserve Capacity Mechanism
Market Rule(s) affected:	1.21.1, 1.21.2, 1.21.3, 4.1.23A, 4.1.23B, 4.1.23C, 4.1.24, 4.1.28, 4.28.2, 4.28.3, 4.28.7B, 4.28.11, 4.28.11A, 4.28.11B, 4.29.5, 4.29.6, 9.4.1, 9.4.2, 9.4.3, 9.4.4, 9.4.5, 9.4.6, 9.4.7, 9.4.8, 9.4.9, 9.4.10, 9.4.11, 9.4.12, 9.4.13, 9.4.14, 9.4A.1, 9.4A.2, 9.4A.3, 9.5.1, 9.5.2, 9.5.3, 9.7.1A, 9.7.1B, 9.16.2, 10.5.1, Chapter 11 (Glossary), Appendix 5 and Appendix 5A.

Introduction

Clause 2.5.1 of the Wholesale Electricity Market (WEM) Rules (Market Rules) provides that any person may make a Rule Change Proposal by completing a Rule Change Proposal form that must be submitted to the Rule Change Panel.

This Rule Change Proposal can be sent by:

Email to: rcp.secretariat@rcpwa.com.au

Post to: Rule Change Panel
 Attn: Executive Officer
 C/o Economic Regulation Authority
 PO Box 8469
 PERTH BC WA 6849

The Rule Change Panel will assess the proposal and, within 5 Business Days of receiving this Rule Change Proposal form, will notify you whether the Rule Change Proposal will be further progressed.

In order for the proposal to be progressed, all fields below must be completed and the change proposal must explain how it will enable the Market Rules to better contribute to the achievement of the Wholesale Market Objectives.

The objectives of the market 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.

Details of the Proposed Rule Change

1. **Describe the concern with the existing Market Rules that is to be addressed by the proposed rule change:**

Issues overview

In this Rule Change Proposal, terms that are capitalized but not defined have the meaning in the WEM Rules.

The Australian Energy Market Operator (**AEMO**) has identified a prudential risk in the Wholesale Electricity Market (**WEM**) that has not been accounted for in the WEM Rules. The Credit Support held for any Market Customer with an Individual Reserve Capacity Requirement (**IRCR**), as required by the WEM Rules, is unlikely to be sufficient to cover all prospective amounts owed to AEMO in the event of default under section 9.23 of the WEM Rules. In that situation, the defaulting Market Customer's liabilities would be recovered from all of the other non-defaulting Market Participants, as required by the WEM Rules.

The prudential requirements, detailed in Chapter 2 of the WEM Rules, only ensure sufficient Credit Support is held by AEMO when a Market Participant's Outstanding Amount accurately represents the amount it would owe in the event of default.

The Outstanding Amount calculation in clause 2.40.1 of the WEM Rules underestimates prospective amounts a Market Participant would owe in respect of Reserve Capacity Mechanism (**RCM**) related payments on any given day for the following two reasons:

1. following the date it defaults, a Market Customer will continue to incur RCM related charges for up to approximately 160 days instead of approximately 70 days as covered by the prudential requirements¹; and
2. the Outstanding Amount calculation assumes the level of historical bilateral Capacity

¹ See 'Background' in this Rule Change Proposal and clause 2.40.1 of the WEM Rules.

Credit Allocations will remain the same. This may not be the case for a number of reasons.²

While a change to the WEM Rules to require Market Participants to provide additional Credit Support would mitigate the identified prudential risk, it would also tie up additional working capital, representing a cost to Market Participants and ultimately consumers.

This Rule Change Proposal eliminates the need for additional Credit Support by proposing changes to the RCM settlement processes. These changes will decrease the prospective amounts owed by Market Participants. To complement these changes and to improve the responsiveness of the Outstanding Amount calculation, a subsequent Procedure Change Proposal relating to the Market Procedure: Prudential Requirements will be progressed by AEMO. AEMO will ensure that Market Participants have sufficient time to adjust to changes in Outstanding Amount calculation.

Background

WEM Prudential Requirements

In the WEM, liabilities are incurred in real time; however, due to the settlement cycle timeline in section 9.16 of the WEM Rules, charges are not settled until at least two months (approximately 70 days) after they are incurred.

Clause 9.24.5 of the WEM Rules requires that in the case of a Payment Default by a Market Participant, if five Business Days following default, AEMO is yet to recover the full overdue amount, the unpaid amounts are recovered from all other Market Participants based on their share of consumption and generation through a Default Levy. The prudential requirements in the WEM are intended to minimise the risk of Default Levies.

The prudential requirements in the WEM are summarised as follows:

- AEMO must determine a Credit Limit for each Market Participant in accordance with clause 2.37.4 of the WEM Rules, which must be sufficient to cover the maximum net amount likely to be owed to AEMO in a 70-day period and is based on historical settlement amounts. The 70-day period reflects the maximum time lag between the occurrence of a liability and its settlement. In accordance with clause 2.37.5 of the WEM Rules, when determining the Credit Limit AEMO must take into account (amongst other factors) the Market Participant's historical level of Reserve Capacity settlement payments.³
- A Market Participant must ensure that, at all times, AEMO holds the benefit of Credit Support that is an amount not less than the most recently determined Credit Limit in accordance with clause 2.38.1 of the WEM Rules.
- AEMO then calculates a Trading Limit for each Market Participant in accordance with section 2.39 of the WEM Rules, which is set to 87% of the Credit Support amount.
- AEMO calculates a Market Participant's Outstanding Amount on a daily basis in accordance with clause 2.40.1 of the WEM Rules. The Outstanding Amount calculation involves actual amounts for which Settlement Statements have been issued along with AEMO's reasonable estimates of how much a Market Participant owes to AEMO in relation to other amounts, at any point in time.⁴

² See clause 5.1.1(b)(ii) of the Market Procedure: Prudential Requirements.

³ See clause 2.37.5(d) of the WEM Rules.

⁴ See clause 2.40.2 of the WEM Rules.

- A Market Participant must ensure that its Outstanding Amount is below its Trading Limit at all times, otherwise AEMO may issue a Margin Call in order to protect the market from prudential risk in a default event.⁵

Outstanding Amount

The prudential requirements in the WEM Rules will only ensure sufficient prudential security is held by AEMO if a Market Participant's Outstanding Amount accurately represents the amount it would owe in the event of default. The Outstanding Amount calculation significantly underestimates prospective amounts a Market Participant would owe in respect of RCM-related payments on any given day.

Under clause 2.40.1 of the WEM Rules and section 5.1 of the Market Procedure: Prudential Requirements, the Outstanding Amount of a Market Participant is calculated as the sum of:

- any unpaid invoices representing the sum of all invoices payable by the Market Participant to AEMO that have been issued to the Market Participant but remain unpaid on the current date, after subtracting any cleared voluntary prepayments; and
- an estimate of accrued exposure representing all transactions in relation to STEM and Non-STEM Settlement that have occurred but have not yet been invoiced to the Market Participant.

The estimate of accrued exposure for Non-STEM Settlement is calculated by multiplying the number of Non-STEM days that have occurred and not been invoiced by the average daily Non-STEM Settlement amount based on the last issued Non-STEM Invoice. There are two implicit assumptions in this calculation:

1. a Market Participant is only exposed for the number of days in the past for which a Non-STEM Settlement Statement has not been issued (this is at most approximately 70 days); and
2. the level of historical bilateral Capacity Credits Allocations that form the basis of the estimate will remain the same.

The following sections will challenge the validity of these assumptions and how they relate to the RCM.

RCM Related Payments

Through the RCM, Capacity Credits are assigned to Facilities following a certification process run by AEMO.⁶ To fund Capacity Credits each Market Customer is allocated an IRCR under clauses 4.28.7 and 4.28.11 of the WEM Rules.

Under clause 4.28.7 of the WEM Rules, a Market Customer's IRCR is determined and published initially for a Capacity Year. A Capacity Year is the 12-month period commencing on the 1 October Trading Day and ending on 1 October the following calendar year.⁷ The IRCR is then 'updated' on a monthly basis.⁸ In effect, each month a 'new' IRCR is published with updated values. Updating IRCRs in this context has no connection to the settlement Adjustment Process under clause 9.16.3 of the WEM Rules.

⁵ See clauses 2.41.1 and 2.42.1 of the WEM Rules.

⁶ See sections 4.7 to 4.12 and 4.20 of the WEM Rules.

⁷ See definition of Capacity Year in Chapter 11 (Glossary) of the WEM Rules.

⁸ See clauses 4.1.28 and 4.28.11 of the WEM Rules.

A Market Customer’s IRCR is calculated using the methodology specified in Appendix 5 of the WEM Rules for each Trading Month and is based on Meter Registry data (including details of the responsible party for each meter) and the associated energy data for the month that is three months prior to that Trading Month. This is referred to as month ‘n-3’. This means that for every day a meter is attributed to a Market Customer as the responsible party, it incurs IRCR liabilities⁹ with a time lag of three calendar months. Due to the settlement cycle timeline this liability gets settled another two months later.¹⁰ In total, an IRCR liability is held for up to approximately 160 days (the liability that exists, based on responsible party details from 1 May, is settled approximately 10 days into October). This is different to the first implicit assumption outlined above, that a Market Participant will only be exposed to liabilities (including IRCR related liabilities) for a maximum period of approximately 70 days.

Under clause 4.14.2 of the WEM Rules, Market Customers can offset part of their IRCR liabilities by ‘trading bilaterally’ their allocation of Capacity Credits with other Market Participants. When this occurs a Market Customer’s IRCR liabilities and the amount settled through AEMO are reduced by the amount that has been allocated bilaterally. Bilateral allocation of Capacity Credits is a monthly process.¹¹

The Capacity Credit Allocation Submission timeline is provided for in clause 9.16.2(b) of the WEM Rules. Currently, the window for Capacity Credit Allocation Submissions opens after the month in which the IRCR liability is attributed and closes before the final Settlement Statement Date for this month is issued. As a result, the Market Customer’s IRCR liabilities are not offset by Capacity Credit Allocations for approximately 130 days. This is inconsistent with the second implicit assumption outlined above, that the IRCR liability assumes that the level of historical Capacity Credit Allocations will remain the same. In the event of a Market Customer default, the WEM Rules do not require a Market Generator to make Capacity Credit Allocations to the defaulting Market Customer and a Market Generator may be unlikely to do so. This means that the IRCR liabilities will not be offset, exposing the market to greater prudential risk.

For example, consider a Market Customer with an IRCR of 100MW, Capacity Credit Allocations of 80MW and a Reserve Capacity Price of \$120k/MW/year. The calculations below show the monthly IRCR liability before and after Capacity Credit Allocations are submitted.

$$IRCR\ Liability\ before\ allocations = \frac{\$120k/year}{12\ months/year} \times (100MW - 0MW) = \$1M$$

$$IRCR\ Liability\ after\ allocations = \frac{\$120k/year}{12\ months/year} \times (100MW - 80MW) = \$200k$$

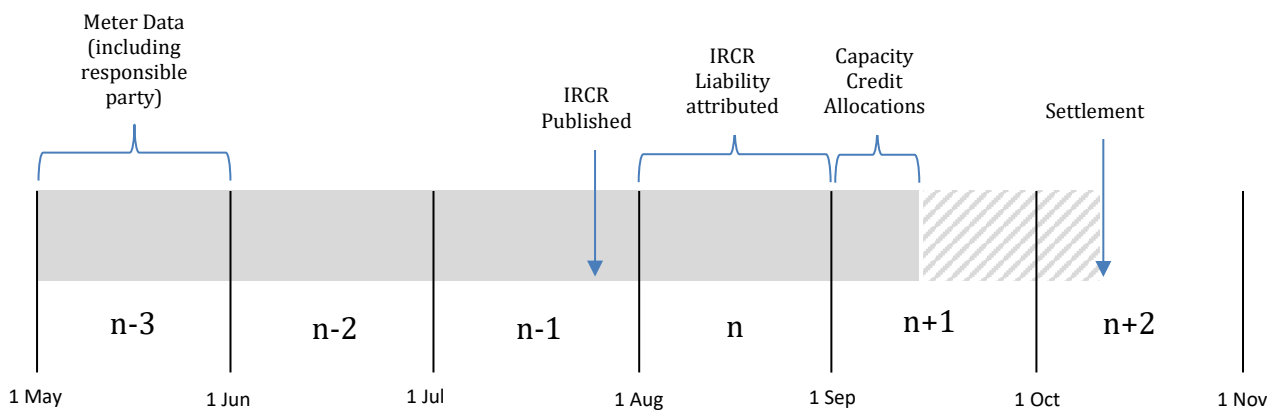
Figure 1 illustrates the period of time the IRCR liability is held without any Capacity Credit Allocations (solid grey) and the period of time the IRCR liability is held with Capacity Credit Allocations (hatched grey).

⁹ In the context of this Rule Change Proposal, liability represents the charges that a Market Customer has incurred and will incur in respect of the WEM, including those charges which have been calculated in a Settlement Statement but not yet paid and those which have not yet been calculated in a subsequent Settlement Statement but for which a charge will occur.

¹⁰ See section 9.16 of the WEM Rules.

¹¹ See clause 4.28.1(a) of the WEM Rules.

Figure 1



Consultation

In the course of the Electricity Market Review, the Public Utilities Office has investigated reducing the time lag between a Market Customer becoming the responsible party for a meter and attributing an IRCR in relation to that meter. This would reduce the financial risk associated with customer churn for retailers.

In preparation of this Rule Change Proposal, AEMO has engaged with the Public Utilities Office to best reflect the outcome of its discussions with stakeholders and the current status of other reforms expected as a result of the Electricity Market Review.

AEMO has also engaged directly with stakeholders to collect feedback on the different options to address the issues outlined above. On 7 February 2017 and 4 April 2017, AEMO discussed this matter with Market Participants at its WA Electricity Consultative Forums.¹² On 3 March 2017, AEMO held a specific workshop that was attended by representatives of 12 Market Participants.¹³ At this workshop, AEMO welcomed written feedback from Market Participants. AEMO has received and responded to written feedback from five Market Participants.¹⁴

All feedback received from the Public Utilities Office and Market Participants has been thoroughly considered and incorporated into this Rule Change Proposal, including the following Rule Change Proposal objectives:

- mitigation of the RCM prudential risk in a timely manner;
- minimising any increase in prudential security requirements for Market Customers;
- minimising changes to existing rules, systems and processes; and
- consistency with the Wholesale Market Objectives.

Furthermore, feedback from consultation showed a preference for the following principles:

¹² Minutes of these meetings are available here: <https://www.aemo.com.au/Stakeholder-Consultation/Industry-forums-and-working-groups/WA-Forums/WA-Electricity-Consultative-Forum-WAECF>.

¹³ Presentation used for discussion at this workshop is available here:

<https://www.aemo.com.au/Stakeholder-Consultation/Industry-forums-and-working-groups/WA-Forums>.

¹⁴ This feedback and AEMO's response has been provided to the Rule Change Panel for its consideration.

- no changes to the 12 and 4 peak SWIS Trading Intervals during the settlement Adjustment Process;
- last provided meter data used to determine a meter's consumption during the peak Trading Intervals; and
- when a Market Customer receives Capacity Credit Allocations that exceed its IRCR, settling the over-allocation at the Reserve Capacity Price.

AEMO has considered and incorporated the above principles, which will be discussed in subsequent sections of this Rule Change Proposal.

Addressing the Issue – Options Considered

There are two aspects to addressing this issue:

1. reducing Market Participant exposure; and
2. accurately accounting for a Market Participant's exposure.

Reducing Exposure Incurred through the RCM

The following options to reduce the exposure incurred through the RCM were considered:

1. reduce n-3 lag in Meter Registry data, particularly responsible party information;
2. allow Capacity Credit Allocation Submissions to be provided before month n;
3. review Settlement Cycle Timelines to move to a shorter settlement cycle (e.g. weekly settlement); and
4. move to a daily IRCR with monetary reallocations instead of Capacity Credit Allocations.

AEMO considers that items 3 and 4 above would minimise increases in prudential security requirements and would be consistent with the Wholesale Market Objectives and market reform. However, these items will require more significant changes to the WEM Rules and systems and, given the immediate impact of the prudential risk, these options were discounted at this time. Further, AEMO understands these items are under consideration as part of the Energy Market Operations and Processes project under the Electricity Market Review and may be raised as a separate rule change in the future.¹⁵

AEMO considers that items 1 and 2 would also minimise increases in prudential security requirements and would be consistent with the Wholesale Market Objectives and market reform. In contrast to items 3 and 4, these items would require minimal changes to the existing WEM Rules and systems. These items allow for timely implementation to mitigate the RCM prudential risk.

Progressing these changes will require changes to the WEM Rules as outlined in subsequent sections.

¹⁵ As discussed in the Position Paper: Design Recommendations for Wholesale Energy and Ancillary Services Market Reforms available here: https://www.finance.wa.gov.au/cms/Public_Utility_Office/Electricity_Market_Review/Wholesale_Electricity_Market_Improvements.aspx.

Accurately Accounting for a Market Participant's Exposure

The following options to accurately represent or account for a Market Participant's exposure were considered:

1. improve the Outstanding Amount calculation in section 5.1 of the Market Procedure: Prudential Requirements to more accurately estimate exposure in real time; and
2. amend the Credit Limit determination methodology outlined in clause 2.37.4 of the WEM Rules.

AEMO considers that item 2 would significantly increase prudential security requirements for Market Participants if it were to mitigate the risk identified in this Rule Change Proposal. As this would tie up additional working capital, representing a cost to Market Participants and ultimately consumers, the option was considered inconsistent with the Wholesale Market Objectives and was discounted by AEMO.

AEMO considers that item 1, when combined with the existing prudential security requirements in the WEM Rules, will ensure that the market is adequately protected in the event of a Market Participant default. AEMO believes this option will not require changes to the WEM Rules and can be implemented in the Market Procedure: Prudential Requirements.

AEMO will propose a subsequent Procedure Change Proposal to amend the Outstanding Amount calculation methodology in the Market Procedure: Prudential Requirements to accurately represent Market Participants' IRCR liabilities. AEMO will propose a new Outstanding Amount calculation methodology that will ensure no assumptions about Capacity Credit Allocations will be made in the calculation. Specifically, exposure will be based on the Capacity Credit Allocations that have been made at the time of calculation. As stated previously, this Rule Change Proposal will permit Capacity Credit Allocations to be made prior to the Trading Month, allowing them to be taken into account in the Outstanding Amount calculation that will be proposed by AEMO.

Market Participants will have the opportunity to provide feedback on these changes as part of the development of the Procedure Change Proposal and then subsequently through the formal consultation process under clause 2.10.7 of the WEM Rules.

Proposed WEM Rule Amendments

Summary

At a high level, this Rule Change Proposal incorporates the following changes:

1. Target month – Change the target month for Meter Registry data in the IRCR calculation to move the responsible party reference month from month n-3 to month n. This reduces the period of time an IRCR liability is held by three months.
2. Capacity Credit Allocation process – Amendments to the Capacity Credit Allocation process will allow multiple Capacity Credit Allocations to be made (by Market Generators) and subsequently accepted (by Market Customers) prior to the Market Customer incurring the IRCR liability. These Capacity Credit Allocations cannot be reversed by AEMO without consideration of the prudential implications.

Consequently, additional changes are necessary:

3. IRCR publication timelines – The IRCR and Capacity Credit Allocation timeline will be amended as follows:

- the IRCR for month n will now be published 5 Business Days prior to the Interval Meter Deadline for month n;
 - an indicative IRCR will be published prior to month n; and
 - the window for Capacity Credit Allocations to be submitted and accepted will remain open until the meter data deadline.
4. Recalculation of IRCR – This Rule Change Proposal proposes to recalculate the IRCR in line with adjustments made under the settlement cycle timeline to compensate for the reduced accuracy in Meter Registry data (as a result of moving from month n-3 to month n).
 5. Market Customer over-allocations – Currently, a Market Customer cannot receive more Capacity Credit Allocations than its IRCR. Under this Rule Change Proposal, Market Customers who receive more Capacity Credit Allocations than their IRCR will be paid for the additional Capacity Credit Allocations at the Reserve Capacity Price.
 6. Market Generator over-allocations – Under this Rule Change Proposal, Market Generators who have made more Capacity Credit Allocations than the number of their held Capacity Credits (as a result of their Capacity Credits being reduced) are given two Business Days to nominate Capacity Credit Allocations that are to be reduced. If the Market Generator fails to make a nomination, all Capacity Credit Allocations will be proportionally reduced by AEMO.

The following subsections discuss each of these items in detail.

1. Target Month

Under this Rule Change Proposal, the target month for Meter Registry data, including responsible party data, Loss Factor information and all other meter Standing Data in the IRCR calculation will change from month n-3 to month n. This is required to reduce the period of time that an IRCR liability is held by a Market Participant by three months. This change is fundamental in order to address the risk identified in this Rule Change Proposal.

To effect this change, Appendix 5 is amended to remove the time lag for Meter Registry data in the IRCR calculation.

Currently, under Step 5 of Appendix 5 of the WEM Rules, the IRCR calculation for a meter that was not registered with AEMO during one or more of the 12 peak SWIS Trading Intervals in the preceding Hot Season, but which was registered by the end of Trading Month n-3, is based on the new meter's meter data during Trading Month n-3. A new meter that starts consuming in Trading Month m will not have an IRCR until m+3. Market Customers are therefore not liable to pay IRCR in respect of new meters for the first three months. However, these three 'free' months are required to be 'paid back' when the meter ceases to exist.

If the time lag for Meter Registry data in the IRCR calculation is removed, as proposed in this Rule Change Proposal, then the free three months will no longer be recovered from the responsible party. The first three months will be paid for by all Market Participants with an IRCR, as the total ratio will now be higher. Changing the meter data reference month from month 'n-3' to month 'n' would avoid sharing new meter charges among all Market Customers; however AEMO is not proposing this change as Market Customers would no longer have certainty over their IRCR before on-billing their customers.

On average, the total ratio would have increased by on average by 0.55% to cover the first

three months for new meters over the period October 2016 to June 2017, inclusive.

2. Capacity Credit Allocation process

An improved Outstanding Amount calculation methodology developed as part of the Procedure Change Proposal discussed above will, at a minimum, be based on accepted Capacity Credit Allocations in AEMO's system. This will only be effective at ensuring the market is protected from a prudential perspective if the Trading Limits of Market Participants' are considered prior to reversing any Capacity Credit Allocations. As this Rule Change Proposal will ensure there are additional checks prior to reversing a Capacity Credit Allocation, AEMO considers it important to introduce a mechanism where both parties agree to the Capacity Credit Allocation before it is accepted.

This Rule Change Proposal proposes to:

- provide a mechanism where Market Generators make individual Capacity Credit Allocations to Market Customers, who then have the ability to accept the Capacity Credit Allocation; and
- ensure that a Capacity Credit Allocation and acceptance can only be reversed by AEMO if the Market Customer's Trading Limit (as determined under section 2.39 of the WEM Rules) will be positive after the reversal.

To effect this change the following WEM Rules are amended:

- section 9.4 has been re-written to:
 - allow more than one Capacity Credit Allocation Submission;
 - require AEMO to check the Market Generator's Trading Margin before approving a Capacity Credit Allocation Submission;
 - introduce the concept of a Capacity Credit Allocation Acceptance;
 - require AEMO to consider the Market Generator's Trading Margin before approving a Capacity Credit Allocation Acceptance; and
 - require AEMO to consider the Market Customer's Trading Margin before reversing a Capacity Credit Allocation;
- clauses 9.16.2(b)(i) and 9.16.2(b)(ii) are amended to adjust the Capacity Credit Allocation Submission and Acceptance window;
- clause 9.5.1 is amended to accommodate Capacity Credit Allocation Submissions being between one Market Generator and one Market Customer;
- clause 9.5.3 is amended to outline when AEMO will reject a Capacity Credit Allocation Submission, rather than when it will be approved;
- the Glossary in Chapter 11 is updated to add the defined term 'Capacity Credit Allocation Acceptance'; and
- the Glossary in Chapter 11 is updated to amend the terms 'Capacity Credit Allocation Submission' and 'Capacity Credit Allocation'.

3. Timelines

This Rule Change Proposal proposes to require AEMO to:

- publish the (initial or updated) IRCR for month n, five Business Days prior to the Interval Meter Deadline for month n;
- publish the Indicative IRCR 10 Business Days prior to month n, which is to be calculated on the assumption that the responsible party for each meter at the time of calculation remains the responsible party for the entirety of month n; and
- open the window for Capacity Credit Allocations and Capacity Credit Allocation Acceptances at least 10 Business Days prior to the beginning of the Trading Month and close the window on the Interval Meter Deadline.

As the IRCR calculation now uses Meter Registry data from month n, the calculation would be more accurate if the IRCR was published later. This Rule Change Proposal amends clauses 4.1.24 and 4.1.28 of the WEM Rules to delay the publication of IRCR while still providing five Business Days for Market Participants to manage Capacity Credit Allocations after the IRCR is published.

To provide Market Customers with an indication of the IRCR, an 'Indicative IRCR' will be provided 10 Business Days prior to the beginning of the Trading Month.

To address the prudential risk identified in this Rule Change Proposal, AEMO intends to undertake the Procedure Change Process to update the Outstanding Amount calculation methodology in the Market Procedure: Prudential Requirements to consider the actual Capacity Credit Allocations made and accepted at any point in time.

To give Market Customers the ability to manage their IRCR exposure, they must be given the opportunity to offset their IRCR liability through bilateral trades. Therefore, this Rule Change Proposal proposes to amend clause 9.16.2(b) to open the Capacity Credit Allocation window 10 Business Days prior to the start of the Trading Month to which the Capacity Credit Allocation Submission relates, and close the window on the Interval Meter Deadline.

To effect this change the following rules are amended:

- clause 4.1.23C is amended to specify the publishing time for the Indicative IRCR;
- clause 10.5.1(f) is amended to explicitly require the publishing of TDL Ratios and NTDL Ratios used in the Indicative Individual Reserve Capacity Requirement;
- clauses 4.28.7B, 4.28.11A and Appendix 5 are amended to specify the methodology for Indicative IRCR calculations (assumptions must be made relating to which Market Customer meters are registered and the Non-Interval Meter Growth rate);
- the Glossary in Chapter 11 is amended to add the new defined term 'Indicative IRCR'; and
- clauses 4.1.24(b), 4.1.28 and 4.28.11(b) are amended to state and accommodate the new publication dates for the initial IRCR and updated IRCR.

4. Recalculation of IRCR

This Rule Change Proposal proposes to:

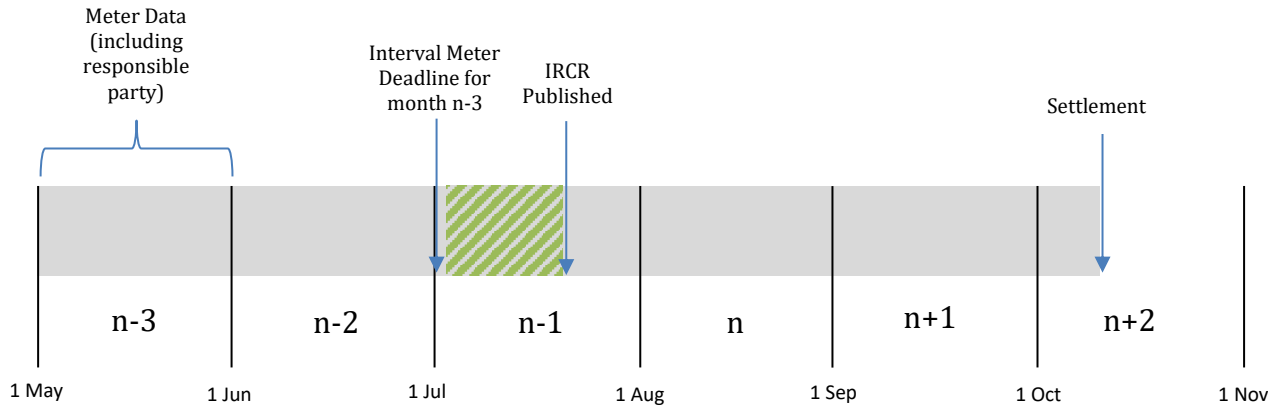
- require AEMO to recalculate the IRCR in line with adjustments made under the settlement cycle timeline to compensate for the reduced accuracy in Meter Registry

data; and

- use the same 12 and 4 Peak SWIS Trading Intervals for the IRCR recalculation as part of each settlement Adjustment Process.

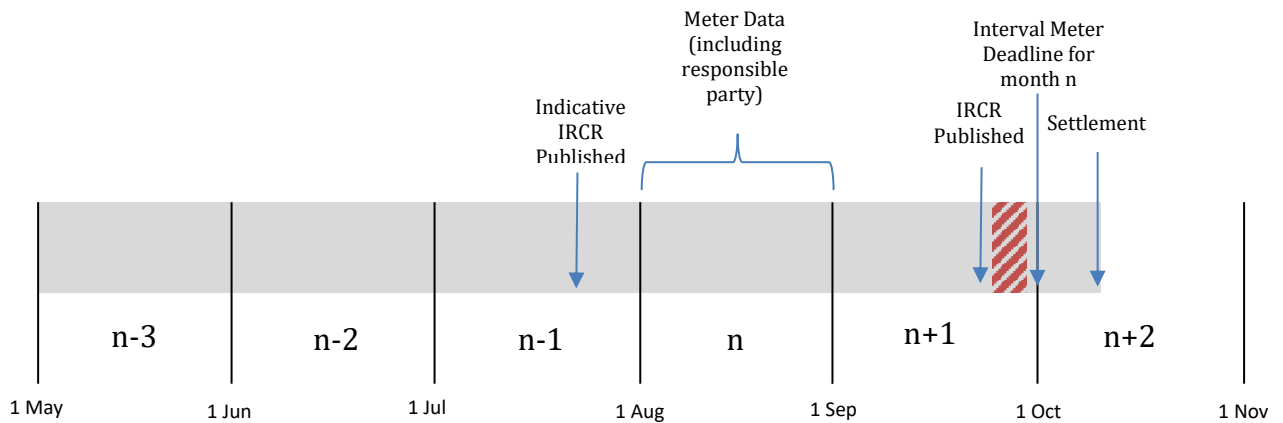
The green shaded area in Figure 2 illustrates that the IRCR for month n is published after the Interval Meter Deadline for month $n-3$ (the data which AEMO uses in the IRCR calculation) under the current rules.

Figure 2



The red shaded area in Figure 3 illustrates that the IRCR for month n is published prior to the Interval Meter Deadline for month n (the Meter Registry data which it uses in the calculation) under the proposed rules.

Figure 3



As a result of the proposed amendments to change the Meter Registry data from month $n-3$ to month n , and the IRCR publication dates, there is likely to be reduced accuracy in the IRCR calculation. This is caused by the time required for the processing of Meter Registry changes by the Metering Data Agent and the delivery of meter data to AEMO. This is shown by comparing the two figures above.

AEMO proposes to introduce the recalculation of the IRCR in the Settlement Adjustment Process to compensate for the reduced accuracy in the IRCR calculations used in the initial

Non-STEM Settlement Statement.

Through consultation, Market Participants provided feedback that they preferred certainty in relation to which Trading Intervals will be used to define the 12 peak SWIS Trading Intervals during the Hot Season, and the 4 peak SWIS Trading Intervals for each Trading Month. Therefore, this Rule Change Proposal intends to use the same 12 and 4 peak SWIS Trading Intervals for the IRCR recalculation for each Settlement Adjustment Process.

IRCR is currently not subject to the Settlement Adjustment Process as it is only calculated once. Therefore, this Rule Change Proposal proposes to insert a new clause 4.28.11B that requires AEMO to recalculate the IRCR in line with the Settlement Adjustment Process.

To ensure the 12 peak SWIS Trading Intervals and 4 peak SWIS Trading Intervals do not change, the following rules are amended:

- clauses 4.1.23A and 4.1.23B are added to specify when AEMO must publish the 4 and 12 peak SWIS Trading Intervals;
- clauses 4.29.5 and 4.29.6 are added to define the 4 and 12 peak SWIS Trading Intervals; and
- Appendices 5 and 5A are amended to refer to the published 4 and 12 peak SWIS Trading Intervals when calculating IRCR.

5. Market Customer Over-allocations

This Rule Change Proposal proposes to settle any Market Customer over-allocations at the Reserve Capacity Price.

Under clause 9.4.10 of the WEM Rules, if a Market Customer receives more Capacity Credit Allocations than its IRCR it is given the opportunity to reduce its Capacity Credit Allocations. If it fails to do so, AEMO under clause 9.4.12 of the WEM Rules, must revoke or disregard the Capacity Credit Allocations. The revocation of Capacity Credit Allocations without consideration for a Market Participant's Trading Margin heightens the prudential risk identified in this Rule Change Proposal, leading to reconsideration of the merits of the current approach.

AEMO's initial proposal to stakeholders was to maintain a mechanism that allowed Market Customers to first reduce their Capacity Credit Allocations. If Market Customers failed to make reductions within the required time, a proportional reduction of Capacity Credit Allocations would occur, rather than the revocation currently provided for in clause 9.4.12 of the WEM Rules. During consultation, Market Participants suggested settling any over-allocations at the Reserve Capacity Price. AEMO has considered this proposal and considers it is appropriate. Therefore, this approach has been proposed in this Rule Change Proposal.

To effect this change:

- clauses 9.4.9, 9.4.10, 9.4.11, 9.4.12, 9.4.13, 9.16.2(b)(iii), 9.16.2(b)(iv) and 9.16.2(b)(v) are deleted to remove the existing process of handling over-allocations;
- clauses 4.28.2 and 4.28.3 have been amended to ensure that Capacity Credit Allocations in excess of a Market Customer's Individual Reserve Capacity Requirement do not distort the Targeted Reserve Capacity Cost and how it is allocated to Market Customers;
- clauses 9.7.1A and 9.7.1B are amended to settle over-allocations at the Reserve Capacity Price.

6. Market Generator over-allocations

Under the current rules, a Market Generator makes Capacity Credit Allocations for month n after the month.¹⁶ This allows Capacity Credit Allocation Submissions to be validated to prevent Market Generators from making more Capacity Credit Allocations than the Capacity Credits it holds.

Due to the above changes, a holder of Capacity Credits (a Market Generator) may submit Capacity Credit Allocations for month n, 10 Business Days prior to the start of the Trading Month. Where a Market Generator subsequently has its Capacity Credits reduced, a situation may arise where the Market Generator has submitted more Capacity Credit Allocations than the Capacity Credits it holds. This reduction can occur either due to a voluntary application or by AEMO in accordance with its powers under the WEM Rules. As IT systems can no longer ensure a Market Generator has sufficient Capacity Credits to allocate, this Rule Change Proposal seeks to introduce a mechanism to address this situation.

This Rule Change Proposal proposes that holders of Capacity Credits have two Business Days to reduce their Capacity Credit Allocations to equal the number of Capacity Credits that they hold. Failing to do so will result in the proportional reduction of all Capacity Credit Allocations by AEMO.

As part of consultation, AEMO proposed a number of options including a first-in first-out reduction, last-in first-out reduction and a proportional reduction of Capacity Credit Allocations. Market Participants in their feedback suggested a hybrid option which would give the holder of Capacity Credits a short period of time to nominate a reduction, after which a proportional reduction would be made by AEMO. This approach has been proposed in this Rule Change Proposal.

To effect this change the following rules are amended:

- clause 9.4A.1 is inserted to require AEMO to notify the holder of Capacity Credits within one Business Day of the over-allocation;
- clause 9.4A.2 is inserted to allow the holder of Capacity Credits to nominate the Capacity Credit Allocations that are to be reduced within two Business Days. The holder of Capacity Credits cannot reduce the Capacity Credit Allocations any more than is required to resolve the over-allocation. Further reductions could be used to the holder's advantage (and the market's detriment). For example, if the holder wanted to retract a Capacity Credit Allocation with a Market Customer that has become insolvent; and
- clause 9.4A.3 is inserted requiring AEMO to reduce Capacity Credit Allocations in accordance with a Market Procedure, if a holder of Capacity Credits fails to make a reduction according to clause 9.4A.2.

Transitional Provisions

Due to the proposed amendments to move the target month from month n-3 to month n for Meter Registry data, transitional arrangements are required.

For example, assume this Rule Change Proposal is progressed and results in Amending Rules that commence on 1 October. For September (m) the IRCR will be calculated using the existing rules and will be based on Meter Registry data in June (m-3). Without transitional measures in

¹⁶ See clause 9.16.2 of the WEM Rules.

October, the IRCR will be calculated based on Meter Registry data in October (n) and there will be no consideration of the responsible party in July, August and September.

AEMO considered three options with regard to transitional measures:

1. propose transitional rules to account for four months of responsible party data in the IRCR calculations for the first Trading Month after the proposed Amending Rules come into effect;
2. propose transitional rules to spread the responsible party data for the three affected months over a larger number of Trading Months; and
3. do not propose any transitional measures (e.g. In the above example, July, August and September responsible party information would be ignored).

After considering positive feedback from Market Participants and the operational impacts, AEMO has decided to progress with option 1 as part of this Rule Change Proposal. See changes in Appendix 1 to this Rule Change Proposal.

This Rule Change Proposal also proposes additional transitional measures to ensure that the 4 peak SWIS Trading Intervals, 12 peak SWIS Trading Intervals and the settlement cycle timeline will be published on or before the Amending Rules for this Rule Change Proposal take effect and will apply on the commencement date of the Amending Rules. To effect these transitional measures clauses 1.21.1, 1.21.2 and 1.21.3 have been added.

AEMO proposes that changes to the Market Procedure detailing the Outstanding Amount calculation are implemented one month after this Rule Change Proposal is implemented. This allows Market Customers the opportunity to receive Capacity Credit Allocations prior to being impacted by changes to the Outstanding Amount calculation.

Civil penalty provisions, Reviewable Decisions and Protected Provisions

There are no civil penalty provisions or Reviewable Decisions affected by this Rule Change Proposal. Clause 4.1.24 is a Protected Provision.

2. Explain the reason for the degree of urgency:

As indicated above, Credit Support held for any Market Customer with an IRCR is unlikely to be sufficient to cover all prospective amounts owed to AEMO in the case of its default under section 9.23 of the WEM Rules. This means that a material share of a defaulting Market Customer's prospective amounts owed to AEMO would be recovered from other Market Participants as a Default Levy under clause 9.24.5 of the WEM Rules.¹⁷

The risk that the prudential security held by AEMO will not be sufficient to cover a defaulting Market Customer's IRCR liabilities should be resolved as soon as possible.

3. Provide any proposed specific changes to particular Market Rules: (for clarity, please use the current wording of the rules and place a ~~strikethrough~~ where words are deleted and underline words added)

¹⁷ AEMO can provide further information to the Rule Change Panel on the potential size of Default Levies. However, due to confidentiality restrictions under the WEM Rules, this is not provided within the Rule Change Proposal

Please see proposed changes in Appendix 1 to this Rule Change Proposal.

4. Describe how the proposed rule change would allow the Market Rules to better address the Wholesale Market Objectives:

AEMO considers that the proposed amendments will better address the following Wholesale Market Objectives (a), (b) and (d).

(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;

(d) to minimise the long-term cost of electricity supplied to customers from the South West interconnected system;

This Rule Change Proposal seeks to minimise the prudential risk arising from a defaulting Market Customer's IRCR liabilities.

The prudential framework set out in Chapter 2 of the WEM Rules directly affects all Market Participants (and ultimately consumers) who pay the required Credit Support and are subject to the Default Levy under clause 9.24.5 of the WEM Rules in the event of a Payment Default by a Market Participant. Therefore the prudential framework aims to facilitate an efficient balance between costs and risk mitigation to provide the necessary security for Market Participants.

The current WEM Rules do not take into account a significant share of Market Customers' expected IRCR liabilities and therefore underestimate the prudential risk to the market.

Market Customers currently experience issues relating to customer churn due to the three month lag in responsible party data. This Rule Change Proposal removes this lag in responsible party data and therefore will reduce the complexity of the customer churn process.

AEMO considers that reducing the prudential risk and correctly accounting for the reduced risk in the prudential requirements through the changes proposed to the target month and Capacity Credit Allocation process promotes economic efficiency and assists in minimising the long term cost of electricity supplied to customers.

5. Provide any identifiable costs and benefits of the change:

Benefits

The proposed amendments in this Rule Change Proposal will improve the effectiveness of the WEM by ensuring the robustness of the prudential framework. The proposed amendments to the Outstanding Amount calculation methodology as part of the subsequent Procedure Change Proposal will provide a more accurate estimate of all Market Participants' prudential exposure in near real time, providing a more effective and responsive prudential framework in the WEM.

Implementation

AEMO has considered the high level impact of this Rule Change Proposal and the subsequent Procedure Change Proposal on the market systems and processes.

Minimising the change to existing WEM Rules, systems and processes in order to minimise costs and result in a timely implementation, has been a key consideration when developing this Rule Change Proposal.

Market Procedure Changes

This Rule Change Proposal will require amendments to the following Market Procedures:

- Capacity Credit Allocation;
- Prudential Requirements;
- Settlement; and
- Individual Reserve Capacity Requirements.

This Rule Change Proposal will also require amendments to the Settlement Cycle Timeline provided for in section 9.16 of the WEM Rules.

Implementation Impact to Market Participants

AEMO anticipates that there will be minor system or process changes required by Market Participants such as:

- minor changes to processes that govern the Capacity Credit Allocation process, which will continue to be managed through the WEMS Market Participant Interface (**MPI**);
- minor changes to processes to adjust to the new timelines, which may include minor changes to systems utilising web services; and
- existing bilateral contracts may be impacted; however, AEMO sought feedback from Market Participants on this matter and no concerns were raised.

AEMO anticipates that there will be no changes from a prudential perspective as AEMO's market systems will continue to provide Market Participants with the information required to manage their prudential position on a daily basis.

AEMO Market System Changes

AEMO has identified that the following changes will be required to ensure compliance of the market systems:

- Development, functional testing and independent certification of the new Outstanding Amount calculation in the Wholesale Electricity Market System (**WEMS**). This will replace the existing calculation, which uses past invoice amounts to estimate current exposure, with an updated calculation which uses more accurate information, such as Capacity Credit Allocations.
- Development, functional testing and independent certification of the updated IRCR and Capacity Credit Allocation processes in the WEMS. Systems that include the IRCR and Capacity Credit Allocation functionality are currently under development by AEMO in preparation for the Amending Rules that take effect on 1 October 2017. It is recommended that the Amending Rules arising out of this proposal commence after

the 1 October 2017 Amending Rules have taken effect so that the current system development process is not disrupted.

- Development, functional testing and independent certification of the updates to the WEMS settlement and metering systems. Minor updates to the settlements and metering systems will be required to reflect changes to the settlement equations, accommodate the recalculated IRCR as part of the settlement Adjustment Process and change the target month for the IRCR calculation.

AEMO will ensure that the changes proposed minimise the volume and complexity of system changes in order to minimise cost and time of implementation.

Implementation Time

AEMO estimates that development, testing and certification of market system changes and processing procedure changes will take approximately four months. Commencement of this work will depend on the availability of resources.

Appendix 1 – Proposed Rules

...

1.21. Transitional calculation of Individual Reserve Capacity Requirements

1.21.1 In this section 1.21:

New Rules means the Amending Rules made by the Prudential Exposure Final Rule Change Report (other than the Amending Rule with respect to this clause 1.21).

Post-Amended Rules means the Market Rules as in force immediately after the New Rules come into effect.

Pre-Amended Rules means the Market Rules as in force immediately before the New Rules come into effect.

Prudential Exposure Final Rule Change Report means the Rule Change Panel's Final Rule Change Report for the Rule Change Proposal: Reduction of the prudential exposure in the Reserve Capacity Mechanism.

Rule Change Commencement Day: means the Trading Day when the New Rules come into effect (as determined by the Rule Change Panel under clause 2.8.12).

1.21.2 Prior to the Rule Change Commencement Day, notwithstanding that the Pre-Amended Rules continue to apply, each Rule Participant must perform all obligations imposed on that Rule Participant under the Post-Amended Rules, in relation to the Rule Change Commencement Day and subsequent Trading Days, that, if the Post-Amended Rules were in force, the Rule Participant would have been required to perform under the Post-Amended Rules. This includes but is not limited to obligations relating to:

- (a) publication of the 12 peak SWIS Trading Intervals in the preceding Hot Season(s) under clause 4.1.23A of the Post-Amended Rules;
- (b) publication of the 4 peak SWIS Trading Intervals in the Trading Month three months prior to the first Trading Month after the Post-Amended Rules come into effect under clause 4.1.23B of the Post-Amended Rules; and
- (c) publication of an updated settlement cycle timeline under clause 9.16.2 of the Post-Amended Rules with respect to the period:
 - (i) starting on the Trading Day when the Post-Amended Rules come into effect; and
 - (ii) ending on the last Trading Day of the relevant Financial Year.

1.21.3 For the first Trading Month during which the Post-Amended Rules come into effect, the references to “Trading Month n” in relation to d(u,i) and d(v,i) values in Step 6 of Appendix 5 are to be read as “Trading Months n-3, n-2, n-1 and n”.

...

4.1.23A. AEMO must publish the 12 peak SWIS Trading Intervals during the Hot Season preceding the initial calculation of Individual Reserve Capacity Requirement, as defined in clause 4.29.5, by the date referred to in clause 9.16.2(c) for the Trading Month of March.

4.1.23B. AEMO must publish the 4 peak SWIS Trading Intervals for each Trading Month, as defined in clause 4.29.6, by the date referred to in clause 9.16.2(c) for the relevant Trading Month.

4.1.23C. AEMO must publish the Indicative Individual Reserve Capacity Requirement for each Market Customer in accordance with clause 4.28.7B by 5:00 PM on the Business Day that is 10 Business Days prior to the Trading Month from which the Indicative Individual Reserve Capacity Requirements will apply.

4.1.24. AEMO must publish the initial Individual Reserve Capacity Requirement for each Market Customer in accordance with clause 4.28.7 by:

- (a) in the case of the first Reserve Capacity Cycle, 5:00 PM on the Business Day being 10 Business Days prior to the day on which the Initial Time occurs; and
- (b) in the case of a subsequent Reserve Capacity Cycle, by 5:00 PM on the Business Day being five Business Days prior to the Interval Meter Deadline for October last Business Day falling on or before 10 September of Year 3 of that cycle.

...

4.1.28. Every ~~Trading~~ Month between 1 ~~October~~ November of Year 3 and 30 September of Year 4 of a Reserve Capacity Cycle after the first Reserve Capacity Cycle and every month between Energy Market Commencement and 30 September of Year 4 of the first Reserve Capacity Cycle:

- (a) AEMO must update the values of each Market Participant’s Individual Reserve Capacity Requirement in accordance with clause 4.28.11; and
- (b) AEMO must publish updated Individual Reserve Capacity Requirements no later than by 5:00 PM on the Business Day being five Business Days prior to the ~~commencement~~ Interval Meter Deadline for the Trading Month from which the updated Individual Reserve Capacity Requirements will apply.

...

4.28.2. For these purposes of clause 4.28.1:

- (a) AEMO is taken to have acquired a Capacity Credit held by a Market Participant in respect of a Trading Month if that Capacity Credit has not been allocated by that Market Participant to another Market Participant for settlement purposes under sections 9.4 and 9.5;
- (aA) without limiting clause 4.28.2(a), AEMO is taken to have acquired all DSM Capacity Credits;
- (b) ~~[Blank]~~ any Capacity Credits that have been allocated to a Market Customer in excess of that Market Customer's Individual Reserve Capacity Requirement are:
 - (i) deemed to be Capacity Credits acquired by AEMO from the Market Customer;
 - (ii) not counted as Capacity Credits traded bilaterally; and
 - (iii) are valued at the Reserve Capacity Price;
- (c) the cost of a Capacity Credit acquired by AEMO which is covered by a Short Term Special Price Arrangement is the Special Reserve Capacity Price determined in accordance with clause 4.21.1(b);
- (cA) the monthly cost of a DSM Capacity Credit is the DSM Reserve Capacity Price divided by 12; and
- (d) the cost of each other Capacity Credit acquired by AEMO is the Monthly Reserve Capacity Price determined in accordance with clause 4.29.1.

4.28.3. For each Trading Month, AEMO must calculate the Targeted Reserve Capacity Cost, being the cost defined under clause 4.28.1(a), and must allocate this cost to Market Customers in accordance with section 9.7, and AEMO must allocate this total cost to Market Customers in proportion to each Market Customer's Individual Reserve Capacity Requirement less the quantity of Capacity Credits allocated to that Market Customer in accordance with clauses 9.4 and 9.5.

...

4.28.7B. AEMO must determine and publish an Indicative Individual Reserve Capacity Requirement for each Market Customer by the date and time specified in clause 4.1.23C where this Indicative Individual Reserve Capacity Requirement:

- (a) is determined using the methodology described in Appendix 5 and clause 4.28.7A; and
- (b) is calculated using data that may be modified in accordance with clause 4.28.11A.

...

4.28.11. AEMO must determine and publish an updated Individual Reserve Capacity Requirement for each Market Customer by the date and time specified in clause 4.1.28(b) where this Individual Reserve Capacity Requirement:

- (a) is determined using the methodology described in Appendix 5 and based on Individual Reserve Capacity Requirements for Intermittent Loads determined for each Trading Month in accordance with Appendix 4A;
- (aA) is calculated using data that may be modified in accordance with clause 4.28.11A; and
- (b) applies from the commencement of the first Trading Month ~~commencing after ending before~~ the date of publication of the updated Individual Reserve Capacity Requirement.

4.28.11A. For the purpose of the calculation of the Indicative Individual Reserve Capacity Requirements and the Individual Reserve Capacity Requirements described in Appendix 4A and Appendix 5, other than for step 10 of Appendix 5, where those calculations make use of the Reserve Capacity Requirement and the peak demand associated with that Reserve Capacity Requirement specified in clause 4.6.2 AEMO may apply different values provided it preserves the ratio of the latter to the former so as to ensure that the total Individual Reserve Capacity Requirement across all Market Customers does not exceed the total number of Capacity Credits during that Trading Month.

4.28.11B AEMO must recalculate and publish the initial Individual Reserve Capacity Requirement or the updated Individual Reserve Capacity Requirements for a Trading Month when undertaking the Adjustment Process for that Trading Month under clause 9.16.3 in accordance with the settlement cycle timeline. This only applies to Trading Months after the Post-Amended Rules defined in section 1.21 come into effect.

...

4.29.5. For the purposes of clause 4.1.23A, the 12 peak SWIS Trading Intervals in a Hot Season are defined as the 3 Trading Intervals with the largest Total Sent Out Generation on each of the 4 Trading Days with the highest maximum demand in that Hot Season. The maximum demand for a Trading Day is the highest Total Sent Out Generation for any Trading Interval in that Trading Day.

4.29.6. For the purposes of clause 4.1.23B, the 4 peak SWIS Trading Intervals in each Trading Month are defined as the 4 Trading Intervals in that Trading Month with the largest Total Sent Out Generation.

...

9.4. Capacity Credit Allocation Process

~~9.4.1. Subject to clause 9.4.1A, a Market Participant holding Capacity Credits may make a single Capacity Credit Allocation Submission applicable for a full Trading Month to AEMO between the dates and times specified in clauses 9.16.2(b)(i) and 9.16.2(b)(ii).~~

- ~~9.4.1A. A Capacity Credit Allocation Submission must not include DSM Capacity Credits.~~
- ~~9.4.2. AEMO must prescribe a Capacity Credit Allocation Submission form and publish it on the Market Web Site.~~
- ~~9.4.3. A Market Participant making a Capacity Credit Allocation Submission must provide to AEMO the information specified in clause 9.5.1 using the form prescribed by AEMO and the method prescribed in the Settlement Procedure.~~
- ~~9.4.4. By making a Capacity Credit Allocation Submission, a Market Participant acknowledges that:~~
- ~~(a) it is acting with the permission of all affected Market Participants; and~~
 - ~~(b) AEMO has the right to reverse any Capacity Credit Allocations if either or both of—~~
 - ~~i. any affected Market Participant, other than the submitting Market Participant, objects to the allocation prior to the deadline for disputes in relation to Non-STEM Settlement Statements; or~~
 - ~~ii. the Capacity Credit Allocation Submission includes DSM Capacity Credits.~~
- ~~9.4.5. As soon as practicable, and not later than noon on the Business Day following receipt of a Capacity Credit Allocation Submission, AEMO must notify the submitting Market Participant:~~
- ~~(a) that the Capacity Credit Allocation Submission has been received; and~~
 - ~~(b) whether the Capacity Credit Allocation Submission has been accepted or rejected, including reasons for rejecting the submission (if appropriate).~~
- ~~9.4.6. If a submitting Market Participant does not receive a notice in accordance with clause 9.4.5, or is notified that the submission is rejected, then the submitting Market Participant must arrange with AEMO to provide a valid Capacity Credit Allocation Submission, by mutually agreed means, not later than the date and time specified in clause 9.16.2(b)(ii).~~
- ~~9.4.7. AEMO must confirm receipt, by telephone, of a Capacity Credit Allocation Submission from a Market Participant made in accordance with clause 9.4.6 within 30 minutes of receiving the submission, indicating the matters referred to in paragraphs 9.4.5(a) and (b).~~
- ~~9.4.8. AEMO must accept a Capacity Credit Allocation Submission unless the submission is not consistent with the requirements of clauses 9.4.1A or 9.5.~~
- ~~9.4.9. Once all Capacity Credit Allocation Submissions have been received by AEMO it must identify each Market Participant which has had more Capacity Credits allocated to it than are required to cover its Individual Reserve Capacity Requirements.~~

~~9.4.10. AEMO must, by the time and date specified in clause 9.16.2(b)(iii) contact any Market Participant referred to in clause 9.4.9 and request the Market Participant to nominate modifications to the total number of Capacity Credits allocated to it under each individual Capacity Credit Allocation Submission to ensure that the total Capacity Credits allocated do not exceed the Market Participant's Individual Reserve Capacity Requirement.~~

~~9.4.11. A Market Participant requested to nominate modifications in accordance with clause 9.4.10 must respond by the time and date specified in clause 9.16.2(b)(iv).~~

~~9.4.12. If a Market Participant requested to nominate modifications in accordance with clause 9.4.10 does not comply with clause 9.4.11, all Capacity Credit Allocation Submissions, insofar as they allocate Capacity Credits to that Market Participant, will be revoked and will be disregarded by AEMO.~~

~~9.4.13. By the time and date specified in clause 9.16.2(b)(v), AEMO must notify each Market Participant from which AEMO has received a Capacity Credit Allocation Submission which has been accepted of the following information (for each Market Participant allocated Capacity Credits in the submission):~~

~~(a) the Capacity Credits allocations accepted as submitted; and~~

~~(b) if AEMO has contacted the Market Participant under clause 9.4.10:~~

~~i. the Capacity Credit allocations that have been reduced in accordance with responses made by that Market Participant under clause 9.4.11, where AEMO must allocate reductions between the sets of Capacity Credits specified in clause 9.5.1(c) so as to maximise the settlement payments to be made by AEMO for the unallocated Capacity Credits held by the submitting Market Participant.~~

~~ii. the Capacity Credit allocations that have been revoked in accordance with clause 9.4.12 due to AEMO not receiving a response from a Market Participant.~~

9.4.1. Subject to clause 9.4.2, a Market Generator may submit one or more Capacity Credit Allocation Submissions for a full Trading Month to AEMO between the dates and times specified in clauses 9.16.2(b)(i) and 9.16.2(b)(ii).

9.4.2. Capacity Credit Allocation Submissions must not include DSM Capacity Credits.

9.4.3. Capacity Credit Allocation Submissions must be submitted in the form specified by AEMO and must include the information specified in clause 9.5.1.

9.4.4. AEMO must reject a Capacity Credit Allocation Submission if:

(a) it is inconsistent with clause 9.4.2;

(b) it is inconsistent with section 9.5; or

- (c) if AEMO reasonably considers that the Trading Margin of the submitting Market Generator is likely to be negative after allocating the Capacity Credits as outlined in the Capacity Credit Allocation Submission, and must otherwise approve the Capacity Credit Allocation Submission.
- 9.4.5. As soon as practicable, following receipt of a Capacity Credit Allocation Submission, AEMO must notify the submitting Market Generator whether the Capacity Credit Allocation Submission has been approved or rejected and include reason for rejecting the submission under clause 9.4.4.
- 9.4.6. As soon as practicable, following the approval of a Capacity Credit Allocation Submission, AEMO must notify the Market Customer specified as the receiver of Capacity Credits that the Capacity Credit Allocation Submission has been approved.
- 9.4.7. Once AEMO has approved a Capacity Credit Allocation Submission, the Market Customer specified as the receiver of the Capacity Credits may accept the Capacity Credits specified in the Capacity Credit Allocation Submission by submitting a Capacity Credit Allocation Acceptance by the date and time specified in clause 9.16.2(b)(ii).
- 9.4.8. Capacity Credit Allocation Acceptances must be submitted in the form specified by AEMO.
- 9.4.9. A Market Generator may withdraw a Capacity Credit Allocation Submission if at the time of withdrawal, AEMO has not received a Capacity Credit Allocation Acceptance under clause 9.4.7 from the Market Customer specified as the receiver of Capacity Credits.
- 9.4.10. AEMO must reject a Capacity Credit Allocation Acceptance if AEMO reasonably considers that the Trading Margin of the Market Generator specified as the provider of Capacity Credits is likely to be negative after allocating the Capacity Credits as outlined in the Capacity Credit Allocation Submission.
- 9.4.11. If a Capacity Credit Allocation Acceptance is not rejected under clause 9.4.10, AEMO must approve the Capacity Credit Allocation Acceptance.
- 9.4.12. As soon as practicable, following receipt of a Capacity Credit Allocation Acceptance, AEMO must notify the submitting Market Customer and the Market Generator that submitted the corresponding Capacity Credit Allocation Submission whether the Capacity Credit Allocation Acceptance has been approved or rejected (for the reason specified in clause 9.4.10).
- 9.4.13. AEMO must reverse a Capacity Credit Allocation if (and only if) both of the following apply:
- (a) AEMO receives a request from the Market Generator and Market Customer involved; and

(b) AEMO reasonably considers that the Trading Margin of the Market Customer specified as the receiver of Capacity Credits is not likely to be negative after the reversal.

9.4.14. AEMO must develop a Market Procedure dealing with:

(a) Capacity Credit Allocations; and

(b) other matters relating to sections 9.4, 9.4A and 9.5,

and Market Participants and AEMO must comply with that Market Procedure.

9.4A. Reduction of Capacity Credit Allocations

9.4A.1. If a Capacity Credit is terminated for any reason during a Trading Month resulting in:

(a) the total number of Capacity Credits allocated in accordance with clause 9.5.1(c)(i) for a Trading Month exceeding the number of Capacity Credits specified that are covered by a Special Price Arrangement but which are allowed to be traded bilaterally under clause 4.14.9, for the Market Participant for the Trading Month; or

(b) the total number of Capacity Credits allocated in accordance with clause 9.5.1(c)(ii) for a Trading Month exceeding the number of Capacity Credits which are allowed to be traded bilaterally under clause 4.14.9 that are not covered by Special Price Arrangements for the Market Participant for the Trading Month.

then AEMO must notify the Market Participant that had its Capacity Credits reduced, within 1 Business Day of the termination.

9.4A.2. The Market Participant may, within 2 Business Days following receipt of the notice in clause 9.4A.1, reduce one or both of the following:

(a) the number of Capacity Credit Allocations by the amount exceeded in clause 9.4A.1(a) in order to eliminate the excess in clause 9.4A.1(a); and

(b) the number of Capacity Credit Allocations by the amount exceeded in clause 9.4A.1(b) in order to eliminate the excess in clause 9.4A.1(b).

9.4A.3. If a Market Participant does not make a reduction under clause 9.4A.2, AEMO must reduce one or both of the following:

(a) the number of Capacity Credit Allocations by the amount exceeded in clause 9.4A.1(a) in order to eliminate the excess in clause 9.4A.1(a); and

(b) the number of Capacity Credit Allocations by the amount exceeded in clause 9.4A.1(b) in order to eliminate the excess in clause 9.4A.1(b),

in line with the Market Procedure specified in 9.4.14.

9.5. Format of Capacity Credit Allocation Submissions

9.5.1. A Capacity Credit Allocation Submission must set out:

- (a) the identity of the submitting Market Participant Generator, which must be the holder of Capacity Credits;
- (b) the identity of each the Market Participant Customer to which the Capacity Credits are to be allocated for settlement purposes, which may include the submitting Market Participant;
- (c) the number of Capacity Credits to be allocated for settlement purposes to ~~each other Market Participant~~ the Market Customer from each of the following sets:
 - i. the set consisting of Capacity Credits held by the submitting Market Participant Generator that are covered by Special Price Arrangements but which are allowed to be traded under clause 4.14.9, ~~where the total number of Capacity Credits in this set is the number of Capacity Credits specified under clause 4.29.3(d)(iii), less the number of Capacity Credits specified under clause 4.29.3(d)(ii), for by~~ the Market Participant Generator for the Trading Month; and
 - ii. the set consisting of Capacity Credits held by the submitting Market Participant Generator which are allowed to be traded under clause 4.14.9 that are neither DSM Capacity Credits nor covered by Special Price Arrangements, ~~as specified under clause 4.29.3(d)(iv)~~ for by the Market Participant Generator for the Trading Month.

9.5.2. A Capacity Credit Allocation Submission may allocate part of a Capacity Credit provided that the number of Capacity Credits allocated is specified to a precision of 0.001 MW.

9.5.3. A Capacity Credit Allocation Submission ~~will only be accepted~~ must be rejected by AEMO if:

- (a) the total number of Capacity Credits allocated in accordance with clause 9.5.1(c)(i) for a Trading Month ~~does not exceed~~s the number of Capacity Credits specified under clause 4.29.3(d)(iii), less the number of Capacity Credits specified under clause 4.29.3(d)(ii), for the Market Participant for the Trading Month; ~~and~~ or
- (b) the total number of Capacity Credits allocated in accordance with clause 9.5.1(c)(ii) for a Trading Month ~~does not exceed~~s the number of Capacity Credits specified under clause 4.29.3(d)(iv) for the Market Participant for the Trading Month.

...

9.7.1A. For the purposes of clause 9.7.1, Capacity Provider Payment (p,m) is—

$CCP(p,m) = \text{Participant Capacity Rebate}(p,m)$
 $+ \text{Non_Allocated_Gen_Capacity_Payments}(p,m)$
 $+ \text{Non_Allocated_SPA_Payments}(p,m)$
 $- \text{Intermittent Load Refund}(p,m)$
 $+ \text{Supplementary Capacity Payment}(p,m)$
 $+ \text{DSM_Capacity_Payments}(p,m)$
 $+ \text{Tranche 2 DSM Dispatch Payments}(p,m)$
 $- \text{Capacity Cost Refund}(p,m)$
 $+ \text{Over-allocation Payment}(p,m)$

Where—

$\text{Non_Allocated_Gen_Capacity_Payments} =$
 $\text{Monthly Reserve Capacity Price}(m) \times (\text{CC_NSPA}(p,m) -$
 $\text{CC_ANSPA}(p,m))$

Where—

$\text{Monthly Reserve Capacity Price}(m)$ is the Monthly Reserve Capacity Price which applies for Trading Day d defined in accordance with clause 4.29.1;

$\text{CC_NSPA}(p,m)$ is the number of Capacity Credits held by Market Participant p in Trading Month m that are not covered by Special Price Arrangements and are not DSM Capacity Credits;

$\text{CC_ANSPA}(p,m)$ is the number of Capacity Credits held by Market Participant p in Trading Month m that are not covered by Special Price Arrangements and which are allocated to other Market Participants;

$\text{Non_Allocated_SPA_Payments} =$
 $\text{Sum}(a \in A, \text{Monthly Special Price}(p,m,a) \times (\text{CC_SPA}(p,m,a) -$
 $\text{CC_ASPA}(p,m,a)))$

Where—

$\text{Monthly Special Price}(p,m,a)$ is the Monthly Special Reserve Capacity Price for Special Price Arrangement a for Market Participant p defined in accordance with clause 4.29.2 which applies for Trading Day d ;

CC_SPA(p,m,a) is the number of Capacity Credits held by Market Participant p in Trading Month m that are covered by Special Price Arrangement a;

CC_ASPA(p,m,a) is the number of Capacity Credits held by Market Participant p in Trading Month m that are covered by Special Price Arrangement a and which are allocated to other Market Participants for Trading Month m under sections 9.4 and 9.5;

DSM_Capacity_Payments (p,m) =

DSM Capacity Credits (p,m) x Monthly DSM Reserve Capacity Price (m);

Monthly DSM Reserve Capacity Price (m) is the DSM Reserve Capacity Price divided by 12;

Tranche 2 DSM Dispatch Payments (p,m) are the Tranche 2 DSM Dispatch Payments for Market Participant p for month m;

Capacity Cost Refund(p,m) is the Capacity Cost Refund payable to AEMO by Market Participant p in respect of that Market Participant's Capacity Credits for Trading Month m, as specified in clause 4.29.3(d)(vi);

Intermittent Load Refund(p,m) is the sum over all of Market Participant p's Intermittent Loads of the Intermittent Load Refund payable to AEMO by Market Participant p in respect of each of its Intermittent Loads for Trading Month m, as specified in clause 4.28A.1;

Supplementary Capacity Payment(p,m) is the net payment to be made by AEMO under a Supplementary Capacity Contract to Market Participant p for Trading Month m, as specified by AEMO in accordance with clause 4.29.3(e)(i);

Participant Capacity Rebate(p,m) is the Participant Capacity Rebate payable to the Market Participant p for all Trading Intervals in Trading Month m, as determined in accordance with clause 4.29.3(d)(vii);

Over-allocation Payment (p,m) =

max (0, Allocated Capacity Credits(p,m)— IRCR(p,m)) x Reserve Capacity Price

Where—

IRCR(p,m) is the Individual Reserve Capacity Requirement for Market Participant p and Trading Month m expressed in units of MW;

Allocated Capacity Credits (p,m) equals the Capacity Credits allocated to Market Participant p in month m in accordance with sections 9.4 and 9.5.

A is the set of all Special Price Arrangements associated with a Facility where “a” is used to refer to a member of that set;

P is the set of all Market Participants where p is a member of that set.

9.7.1B. For the purposes of clause 9.7.1, Capacity Purchaser Payment is—

CPP(p,m) =

Targeted Reserve Capacity costs(p,m)

+ Shared Reserve capacity costs (p,m)

- LF_Capacity_Cost(p,m)

Where—

Targeted Reserve Capacity costs(p,m) =

Targeted Reserve Capacity Cost(m) × Shortfall Share(p,m)

Where—

Targeted Reserve Capacity Cost(m) is the cost of Reserve Capacity to be shared amongst those Market Participants who have not had sufficient Capacity Credits allocated to them for Trading Month m where this cost is specified for Trading Month m under clause 4.29.3(b);

Shortfall Share(p,m) =

$(\max(0, \text{IRCR}(p,m) - \text{Allocated Capacity Credits}(p,m))) /$

$\text{Sum}(p \in P, (\max(0, \text{IRCR}(p,m) - \text{Allocated Capacity Credits}(p,m)))$

Where—

IRCR(p,m) is the Individual Reserve Capacity Requirement for Market Participant p and Trading Month m expressed in units of MW;

Allocated Capacity Credits (p,m) equals the capacity credits allocated to Market Participant p in month m in accordance with sections 9.4 and 9.5;

Shared Reserve Capacity Cost(p,m) =

Shared Reserve Capacity Cost(m) × Capacity Share(p,m)

Where—

Shared Reserve Capacity Cost(m) is the cost of Reserve Capacity to be shared amongst all Market Participant for Trading Month m where this cost is specified for Trading Month m under clause 4.29.3(c);

$$\text{Capacity Share}(p,m) = \frac{\text{IRCR}(p,m)}{\text{Sum}(p \in P, \text{IRCR}(p,m))}$$

$$\text{LF_Capacity_Cost}(p,m) = \text{LF_Capacity_Cost}(m) \times \text{Capacity Share}(p,m)$$

Where—

LF_Capacity_Cost(m) is the total Load Following Service capacity payment cost for Trading Month m as specified in clause 9.9.2(q);

P is the set of all Market Participants where p is a member of that set.

...

- 9.16.2. For all Financial Years other than the first Financial Year of energy market operations, the settlement cycle timeline for settlement of other amounts payable under these Market Rules for all Trading Days within a Financial Year must be published by AEMO at least one calendar month prior to the commencement of that Financial Year. For the first Financial Year of energy market operation, the settlement cycle timeline must be published one calendar month prior to Energy Market Commencement. This settlement cycle timeline must include for each settlement cycle:
- (a) The Interval Meter Deadline, being the Business Day by which Meter Data Submissions for a Trading Month must be provided to AEMO. This date must be the first Business Day of the second month following the month in which the Trading Month commenced.
 - (b) The Capacity Credit Allocation Submission and Capacity Credit Allocation Acceptance timeline, including:
 - i. the earliest date and time at which Capacity Credit Allocation Submissions or Capacity Credit Allocation Acceptances for a Trading Month can be made submitted, where this is to be a Business Day after the end of the Trading Month to which the Capacity Credit Allocation Submission relates but not less than 10 Business Days prior to the start of the Trading Month to which the Capacity Credit Allocation Submission relates Non-STEM Settlement Statement Date;
 - ii. the latest date and time at which Capacity Credit Allocation Submissions or Capacity Credit Allocation Acceptances for a Trading Month can be made to AEMO, where this is to be not less than five Business Days prior to the Non-STEM Settlement Statement Date the Interval Meter Deadline as specified in clause 9.16.2(a) for the Trading Month to which the Capacity Credit Allocation Submission relates;

- ~~iii. the time and date by which AEMO must contact any Market Participant identified under clause 9.4.9 where this is to be not less than four Business Days prior to the Non-STEM Settlement Statement Date;~~
- ~~iv. the time and date by which a Market Participant must respond to any request made by AEMO in accordance with clause 9.4.10 where this is to be not less than two Business Days prior to the Non-STEM Settlement Statement Date; and~~
- ~~v. the time and date by which AEMO will notify Market Participants from which AEMO has accepted Capacity Credit Allocation Submissions where this is to be not less than two Business Days prior to the Non-STEM Settlement Statement, but later than the time specified in clause 9.16.2(b)(iv).~~

...

10.5.1. AEMO must set the class of confidentiality status for the following information under clause 10.2.1, as Public and AEMO must make each item of information available from or via the Market Web Site after that item of information becomes available to AEMO:

...

- (f) the following Reserve Capacity information (if applicable):
 - i. Requests for Expressions of Interest described in clause 4.2.3 for the previous five Reserve Capacity Cycles;
 - ii. the summary of Requests for Expressions of Interest described in clause 4.2.7 for the previous five Reserve Capacity Cycles;
 - iii. the Reserve Capacity Information Pack published in accordance with clause 4.7.2 for the previous five Reserve Capacity Cycles;
 - iiiA. for each Market Participant that was assigned Certified Reserve Capacity, the level of Certified Reserve Capacity assigned to each to Facility for each Reserve Capacity Cycle;
 - iv. for each Market Participant holding Capacity Credits, the Capacity Credits provided by each Facility for each Reserve Capacity Cycle;
 - v. the identity of each Market Participant from which AEMO procured Capacity Credits in the most recent Reserve Capacity Auction, and the total amount procured, where this information is to be published by January 7th of the year following the Reserve Capacity Auction;
 - vi. for each Special Price Arrangement for each Registered Facility:
 - 1. the amount of Reserve Capacity covered;
 - 2. the term of the Special Price Arrangement; and

3. the Special Reserve Capacity Price applicable to the Special Price Arrangement,

where this information is to be current as at, and published on, January 7th of each year;

- vii. all Reserve Capacity Offer quantities and prices, including details of the bidder and facility, for a Reserve Capacity Auction, where this information is to be published by January 7th of the year following the Reserve Capacity Auction;
- viii. reports summarising the outcomes of Reserve Capacity Tests and reasons for delays in those tests, as required by clause 4.25.11; and
- ix. the following annually calculated and monthly adjusted ratios (including those determined when publishing the Indicative Individual Reserve Capacity Requirement in accordance with clause 4.28.7B):
 1. NTDL_Ratio as calculated in accordance with Appendix 5, STEP 8;
 2. TDL_Ratio as calculated in accordance with Appendix 5, STEP 8; and
 3. Total_Ratio as calculated in accordance with Appendix 5, STEP 10; and

...

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11 Glossary

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Capacity Credit Allocation: The number of Capacity Credits allocated to a Market Participant Customer for settlement purposes through the allocation process in clauses 9.4 and 9.5 as a result of an approved Capacity Credit Allocation Submission and approved Capacity Credit Allocation Acceptance.

Capacity Credit Allocation Acceptance: A submission from a Market Customer to AEMO to accept a Capacity Credit Allocation Submission in accordance with clause 9.4.1.

Capacity Credit Allocation Submission: A submission from a Market Participant Generator to AEMO in accordance with clause 9.4.1 to allocate Capacity Credits to a single Market Customer with respect to a specific Trading Month.

...

Indicative Individual Reserve Capacity Requirement: Means the estimate of a Market Customer's Individual Reserve Capacity Requirement published in accordance with clause 4.1.23C.

...

Appendix 5: Individual Reserve Capacity Requirements

This Appendix presents the method for annually setting and monthly adjusting Individual Reserve Capacity Requirements.

For the purpose of this Appendix:

- ~~• Steps 1 to 10 are repeated every month.~~
- All references, apart from those in Step 5A, to meters are interval meters.
- The Notional Wholesale Meter is to be treated as a registered interval meter measuring Temperature Dependent Load. This meter is denoted by Temperature Dependent Load meter $v=v^*$.
- The New Notional Wholesale Meter, determined in accordance with Step 5A, is to be treated as a registered interval meter measuring Temperature Dependent Load.
- The meter registration data to be used in the calculations is to be the most current complete set of meter registration data as at the time of commencing the calculations.
- The values of RR (the Reserve Capacity Requirement) and FL (forecast peak demand associated with that Reserve Capacity Requirement as specified in clause 4.6.2) may be modified from their standard values in accordance with clause 4.28.11A.
- In the case of the first Reserve Capacity Cycle, AEMO may use meter data relating to periods prior to Energy Market Commencement as if the energy market had commenced prior to the time periods covered by that meter data.
- ~~• In Steps 1 and 5 the demand in a Trading Interval is measured as the Total Sent Out Generation in that Trading Interval.~~
- ~~• In Step 1 the maximum demand for a Trading Day is the highest demand measured for any Trading Interval in that Trading Day.~~
- The 12 peak SWIS Trading Intervals are defined in clause 4.29.5.
- The 4 peak SWIS Trading Intervals for a Trading Month are defined in clause 4.29.6.
- When calculating the Indicative Individual Reserve Capacity Requirement it is assumed that all meters registered to a Market Customer on the day of

calculation remain registered to that Market Customer for the entirety of the Trading Month.

- When calculating the Indicative Individual Reserve Capacity Requirement it is assumed that the “Non-Interval Meter Growth” referred to in Step 5A is zero.

~~STEP 1: Define the 12 peak SWIS Trading Intervals during the Hot Season preceding the initial calculation of Individual Reserve Capacity Requirements for a Reserve Capacity Cycle (the “preceding Hot Season”) as corresponding to the 3 highest demand Trading Intervals on each of the 4 Trading Days with the highest maximum demand. [Blank]~~

...

STEP 5: When determining the Individual Reserve Capacity Requirements for Trading Month n identify meters that were not registered with AEMO during one or more of the 12 peak SWIS Trading Intervals in the preceding Hot Season but which were registered by the end of Trading Month n-3.

~~Identify the 4 peak SWIS Trading Intervals of Trading Month n-3, being the 4 highest demand Trading Intervals in that Trading Month.~~

For a new meter u that measures Non-Temperature Dependent Load set $NMNTCR(u)$ to be 1.1 times the MW figure formed by doubling the median value of the metered consumption for that meter during the 4 peak SWIS Trading Intervals of Trading Month n-3.

For a new meter v that measures Temperature Dependent Load set $NMTDCR(v)$ to be 1.3 times the MW figure formed by doubling the median value of the metered consumption for that meter during the 4 peak SWIS Trading Intervals of Trading Month n-3.

For a new meter w that measures Intermittent Load set $IILRCR(w)$ in accordance with Appendix 4A to the value applicable to Trading Month n.

STEP 5A: When determining the Individual Reserve Capacity Requirements for Trading Month n.

Find the MW figure formed by doubling the median value of the metered consumption for the Notional Wholesale Meter v^* , during the 4 peak SWIS Trading Intervals of Trading Month n-3 (“Median Notional Wholesale Meter”).

Divide the Median Notional Wholesale Meter by the number of non-interval or accumulation meters that existed at the end of Trading Month n-3 (“Average Non-Interval Meter”).

Subtract the number of non-interval or accumulation meters disconnected during Trading Month n-3 from the number of non-interval or accumulation meters connected during Trading Month n-3 (“Non-Interval Meter Growth”).

Multiply the Non-Interval Meter Growth and the Average Non-Interval Meter. (“New Notional Wholesale Meter”).

For the New Notional Wholesale Meter set $NMTDCR(v)$ equal to be 1.3 times the New Notional Wholesale Meter.

STEP 6: Calculate the values of $d(u,i)$ for Non-Temperature Dependent Load, $d(v,i)$ for Temperature Dependent Loads and $d(w,i)$ for Intermittent Loads such that:

- $d(u,i)$ has a value of zero if meter u measures Intermittent Load or was not registered to Market Customer i during Trading Month $n-3$, otherwise it has a value equal to the number of full Trading Days the meter was registered to Market Customer i in Trading Month $n-3$ divided by the number of days in Trading Month $n-3$.
- $d(v,i)$ has a value of zero if meter v measures Intermittent Load or was not registered to Market Customer i during Trading Month $n-3$, otherwise it has a value equal to the number of full Trading Days the meter was registered to Market Customer i in Trading Month $n-3$ divided by the number of days in Trading Month $n-3$.
- $d(w,i)$ has a value of zero if meter w was not registered to Market Customer i during Trading Month n , otherwise it has a value of one if Market Customer i nominated capacity for the Intermittent Load measured by meter w in accordance with clause 4.28.8(c), with the exception that if the Intermittent Load was for Load at a meter registered to Market Customer i for only part of Trading Month n , then it has a value equal to the number of full Trading Days that meter was registered to Market Customer i in Trading Month n divided by the number of days in Trading Month n .

STEP 7: Identify the set NM of all those new meters v that measured consumption that was measured by meter $v=v^*$ during the preceding Hot Season and set $TDLn(v)$ for meter $v=v^*$ to equal:

$$TDLn(v^*) = TDL(v^*) - \text{Sum}(v \in NW, NMTDCR(v) \times d(v,q))$$

Where

q denotes a Market Customer to which the new meter is associated.

$d(v,q)$ is the number of days the new meter is registered to Market Participant q divide by number of days in the Trading Month $n-3$.

...

Appendix 5A: Non-Temperature Dependent Load Requirements

This Appendix presents the method and requirements for accepting, in accordance with clause 4.28.9, a load measured by an interval meter in the list provided in accordance with clause 4.28.8(a) as a Non-Temperature Dependent Load.

For the purpose of this Appendix:

- the meter data to be used in any calculations is to be the most current set of meter data as at the time of commencing the calculations; and
- ~~the 4 peak SWIS Trading Intervals for a Trading Month are defined in clause 4.29.6. the 4 peak SWIS Trading Intervals in a Trading Month are the 4 highest demand Trading Intervals in that Trading Month, where the demand in a Trading Interval is measured as the Total Sent Out Generation in that Trading Interval.~~

AEMO must perform the following steps in deciding whether to accept, in accordance with clause 4.28.9, a load measured by an interval meter in the list provided in accordance with clause 4.28.8(a) as a Non-Temperature Dependent Load:

...