

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

Standard Rule Change Process

31 May 2018

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1. Rule Change Process and Timeline

On 17 July 2017, the Australian Energy Market Operator (**AEMO**) submitted a Rule Change Proposal titled “Reduction of the prudential exposure in the Reserve Capacity Mechanism” (RC_2017_06).

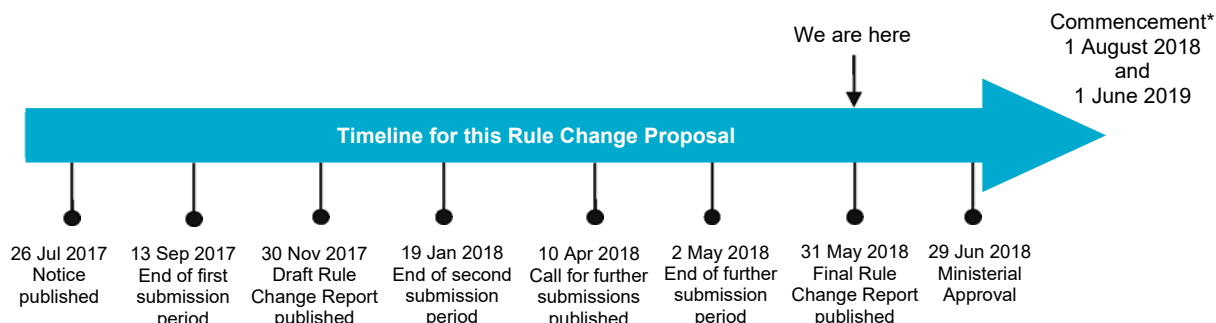
This proposal is being processed using the Standard Rule Change Process, described in section 2.7 of the Wholesale Electricity Market (**WEM**) Rules (**Market Rules**). The Rule Change Panel extended some of the standard timeframes for the process in accordance with clause 2.5.10 of the Market Rules as follows:

- the first submission period was extended on 26 July 2017;
- the publication date of the Draft Rule Change Report was extended on 26 July 2017 and 24 October 2017;
- the second submission period was extended on 30 November 2017 and 15 January 2018; and
- the publication date of the Final Rule Change Report was extended on 30 November 2017, 21 December 2018 and 28 February 2018.

On 10 April 2018 the Rule Change Panel published a call for further submissions to consult on new aspects of the costs and benefits of the proposal.

Further details of the extensions are available on the Rule Change Panel’s website.

The key dates for progressing this Rule Change Proposal, as amended in the extension notices, are:



* The commencement date for the transitional rules in the new section 1.26 is 1 August 2018, and for the rest of the Amending Rules is 1 June 2019. The Rule Change Panel will adjust the commencement dates if the Minister approves the Amending Rules later than 29 June 2018.

The Rule Change Panel’s final decision is to accept the Rule Change Proposal in a modified form, as set out in section 8 of this Final Rule Change Report.

All documents related to this Rule Change Proposal can be found on the Rule Change Panel’s website at [Rule Change: RC_2017_06 - Economic Regulation Authority Western Australia](#).

2. Proposed Amendments

2.1 The Rule Change Proposal

This section provides a brief summary of AEMO's Rule Change Proposal. Full details of this Rule Change Proposal are available on the Rule Change Panel's website.

Identified Issue

AEMO has identified that the current prudential regime does not fully account for the Individual Reserve Capacity Requirement (**IRCR**) related prudential exposure of Market Customers. That is, AEMO likely holds insufficient Credit Support from Market Customers to cover all prospective amounts that could be owed to AEMO in the event of a Market Customer default under section 9.23 of the Market Rules.

The current prudential requirements in the Market Rules would only ensure that AEMO holds sufficient Credit Support in the event of a Market Participant default if the Market Participant's Outstanding Amount covers the amount the participant would owe AEMO.¹ However, the Outstanding Amount calculation in clause 2.40.1 of the Market Rules underestimates prospective amounts a Market Customer would owe in respect of IRCR-related payments on any given day. This is because:

- the current prudential requirements only account for a Market Customer's IRCR-related exposure for days that lie in the past; however, a Market Customer would continue to incur IRCR-related charges for another three months after a default; and
- the Outstanding Amount calculation assumes the level of historical bilateral Capacity Credit Allocations for days for which the bilateral allocation window has not yet closed will remain the same as in previous months; however, there are several reasons why this is unlikely to be the case for a defaulting Market Customer.

This unaccounted for credit risk is currently borne by all Market Participants that buy or sell energy in the WEM. This situation is inconsistent with the clear intent of the WEM prudential regime that all Market Participants cover their own prudential exposure to minimise the risk of AEMO requiring to impose Default Levies in case of a Market Participant default.²

Proposed Changes

AEMO's Rule Change Proposal seeks to remove the identified unaccounted for prudential exposure and the associated credit risk, which would mitigate the need for Market Customers to provide increased Credit Support to cover such exposure. AEMO proposed the following changes to the Market Rules to give this effect:

- a change to the responsible party reference month³ in the IRCR calculation from month n-3 to month n, so that Market Customers no longer incur IRCR liabilities for any future periods;

¹ Under the current prudential regime, a Market Participant's requirements for Credit Support ensure that the Outstanding Amount (calculated under clause 2.40.1 of the Market Rules) cannot exceed the Credit Support; but the Outstanding Amount calculation likely underestimates how much a Market Participant owes to AEMO at any point in time (as outlined in AEMO's proposal). If a Market Participant defaults, AEMO first satisfies the participant's liabilities to AEMO from the participant's Credit Support; but where the Market Participant's Credit Support is not sufficient to cover its liabilities to AEMO, AEMO must recover the uncovered amount from the market via Default Levies.

² Default Levies are intended as a backstop arrangement because Market Participants' liabilities to AEMO at any point in time cannot be accurately calculated on the date itself, but have to be estimated.

³ The responsible party reference month is the reference period used to allocate a meter's IRCR charges to a Market Customer. That is, the Market Customer(s) to which the meter is registered in the Meter Registry during the responsible party reference month will incur the IRCR charges for that meter.

- 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; and
- consequential amendments to support the implementation of the two changes outlined above.

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

AEMO noted in its Rule Change Proposal that, alternatively, the identified credit risk could be mitigated by adjusting the Credit Limit determination methodology to reflect the actual prudential exposure under the current Market Rules. However, this approach would lead to a significant increase in Credit Support requirements that would tie up additional working capital, representing a cost to Market Participants and ultimately to consumers⁴.

Proposed Transitional Provisions

AEMO considered three options for transitional arrangements to manage the change of the responsible party reference month from n-3 to n:

1. even split approach: 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. extended even split approach: spread the responsible party data for the three affected months over a larger number of Trading Months rather than only the first Trading Month; and
3. drop dead approach: not having any transitional measures (i.e. the responsible party information in the three affected months will be completely ignored).

After considering feedback from Market Participants and the operational impacts, AEMO proposed the even split approach (option 1 above) in the Rule Change Proposal.

2.2 The Rule Change Panel's Initial Assessment of the Proposal

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

3. Consultation

3.1 General Consultation

In preparing its Rule Change Proposal, AEMO consulted extensively with stakeholders on the proposed approach. The consultation included individual discussions with stakeholders, a

⁴ The Rule Change Panel has estimated the total cost of additional Credit Support as part of its cost-benefit analysis outlined in Appendix D of this report

specific workshop on 3 March 2017, and discussions during AEMO stakeholder forums on 7 February 2017 and 4 April 2017.

3.2 The Market Advisory Committee

AEMO presented the concepts for the Rule Change Proposal to the Market Advisory Committee (**MAC**) at its 14 June 2017 meeting, and a Pre-Rule Change Proposal was discussed at the MAC meeting on 12 July 2017.

A summary of these discussions by the MAC is provided in section 4.2 of the Draft Rule Change Report.

The proposal was further discussed by the MAC at its 14 March 2018 meeting, after the close of the second submission period. A summary of the discussion by the MAC on 14 March 2018 is provided below.

A complete summary of the relevant discussions in all three MAC meetings is provided in Appendix C of this report.

Further details of the relevant MAC meetings are available in the MAC meeting papers and minutes available on the Rule Change Panel's website at [Market Advisory Committee Meetings - Economic Regulation Authority Western Australia](#).

14 March 2018 MAC Meeting

- The Chair advised that RCP Support was working on a more detailed cost-benefit analysis for RC_2017_06 after receiving updated time and cost estimates from AEMO. RCP Support expected to publish a call for further submissions seeking continued support from Market Participants for RC_2017_06 on the basis of this cost-benefit analysis. RCP Support was also considering how the proposal could be modified to reduce costs.
- Mrs Jacinda Papps asked which parts of RC_2017_06 RCP Support was thinking of modifying. The Chair replied that this had not yet been determined. Ms Jenny Laidlaw added that if any potential changes were identified they would be included as options for stakeholder consideration in the call for further submissions, along with their estimated costs and benefits.
- In response to a question from Mrs Papps and Mr Geoff Gaston, the Chair confirmed that AEMO's revised cost estimate had not been published as AEMO was still in negotiations with its IT providers and had asked that this information be kept confidential.
- Mrs Papps noted Alinta Energy's strong support for retaining the proposed changes to the responsible party reference month used for IRCR calculations (from n-3 to n). Ms Laidlaw noted it would be helpful if the submissions to the call for further submissions included further information on the more qualitative benefits of the proposal.
- Mr Martin Maticka noted that when AEMO performed a more detailed technical analysis it found the implementation cost was going to be much greater than originally expected. AEMO still believed that RC_2017_06 should go forward to address the large prudential exposure in the market; and that the proposed changes would be the most effective way to address the problem. Mr Maticka suggested that Market Participants make a submission if they considered there was another, simpler solution that addressed the problem without increasing the prudential requirements; or if they wanted to provide any particular strong support to specific components of the proposal.

- Mrs Papps asked at what point additional changes to the proposed Amending Rules might invalidate the rule change process, given the Draft Rule Change Report was already published. Ms Laidlaw replied that changes large enough to warrant starting the rule change process again were not expected.
- The Chair reiterated the Rule Change Panel's view that further consultation was necessary given the increased cost estimates provided by AEMO. Mr Maticka noted that AEMO would always take the position that the market should not be unnecessarily exposed, so if RC_2017_06 was rejected, then AEMO would look at another Rule Change Proposal to protect the market.

3.3 Submissions Received During the First Submission Period

The first submission period for this Rule Change Proposal was held between 26 July 2017 and 13 September 2017. The Rule Change Panel received submissions from AEMO, Alinta Energy, Bluewaters, Change Energy, Perth Energy and Community Electricity.

All but one of the submissions were supportive of the proposal. Perth Energy was the submitter that did not support the proposal – it agreed the changes should reduce financial risk in the market but questioned the significance of the risk and whether it would be better to wait until a more holistic approach can be put in place in parallel with other more fundamental changes to the settlement system.

Alinta Energy, Change Energy and Community Electricity all explicitly supported the change of the responsible party reference month from n-3 to n. All three submitters noted that this change has merits in its own right beyond addressing the prudential risk, as it resolves a current issue in the Market Rules.

Alinta Energy and Change Energy raised concerns about the costs and risks of the even split transitional measures and expressed a strong preference for the drop dead option.

Bluewaters raised concerns about the retention of n-3 as the meter data reference month for new meters.⁵ Bluewaters considered that this provides a subsidy for new meters that compromises economic efficiency and therefore does not promote the Wholesale Market Objectives. Bluewaters considered that the subsidy could be avoided by changing the meter data reference month for new meters from month n-3 to month n, and noted that AEMO had decided against this solution because it would mean that Market Customers would no longer have certainty over their IRCR charges before on-billing customers. Bluewaters, however, considered that economic efficiency is a public benefit that should be valued higher than certainty for Market Customers; and suggested that Market Customers could reliably estimate their new meters' consumption for the IRCR calculation, and any discrepancy between the estimate and the actual reading could be reconciled in the settlement adjustment process.

AEMO's submission commented on the issue raised by Bluewaters, correcting several inaccurate statements in the Rule Change Proposal about the impacts of changing the responsible party reference month to month n while leaving the meter data reference month for new meters at month n-3.

Three submissions also provided feedback on AEMO's intention to review and update the Outstanding Amount calculation, requesting a transparent and comprehensive consultation

⁵ The meter data reference month for new meters refers to the reference period used to calculate the IRCR contribution of a new meter. That is, the IRCR charge for a new meter is based on the meter's consumption during the meter data reference month for new meters. In this context, a new meter is an interval meter that was not registered with AEMO during all of the 12 Peak SWIS Trading Intervals of the relevant Hot Season.

process aligned with the processing of the Rule Change Proposal. The Rule Change Panel notes that AEMO has already commenced consultation on the relevant Market Procedure.

The assessment by submitting parties as to whether the proposal would better achieve the Wholesale Market Objectives is summarised below:

Submitter	Wholesale Market Objective Assessment
AEMO	AEMO considers that the proposed amendments will better address Wholesale Market Objectives (a), (b) and (d).
Alinta Energy	Alinta agrees with AEMO's assessment that the broader rule change, which seeks to minimise the prudential risk arising from a defaulting Market Customer's IRCR liabilities, better facilitates the achievement of Wholesale Market Objectives (a), (b) and (d).
Bluewaters	Subject to its concerns about the meter data reference month for new meters, Bluewaters considers that the proposal is likely to address the identified prudential risk, and in turn is likely to promote the Wholesale Market Objectives.
Change Energy	Change Energy agrees with AEMO's assessment that the broader rule change, which seeks to minimise the prudential risk arising from a defaulting Market Customer's IRCR liabilities, better facilitates the achievement of Wholesale Market Objectives (a), (b) and (d).
Community Electricity	Community Electricity agrees that the proposal is consistent with the Wholesale Market Objectives as it properly preserves the proportion and balance of issues contemplated by offsetting expenses with savings as far as practicable.
Perth Energy	No assessment provided.

Copies of all submissions received during the first submission period are available in full on the Rule Change Panel's website.

3.4 The Rule Change Panel's Response to Submissions Received During the First Submission Period

The Rule Change Panel's response to each of the specific issues raised in the first submission period is detailed in Appendix A of the Draft Rule Change Report for this proposal, which is available on the Rule Change Panel's website. A more general discussion of the proposal, which addresses the main issues raised in the submissions and provides the Rule Change Panel's response to these issues, is available in section 6.2 of this report.

3.5 Submissions Received During the Second Submission Period

The second submission period was held between 30 November 2017 and 19 January 2018. The Rule Change Panel received submissions from AEMO, Alinta Energy, Bluewaters, Community Electricity and Synergy.

The submissions of AEMO, Alinta Energy and Community Electricity were supportive of the Rule Change Panel’s proposed decision. The submissions of Bluewaters and Synergy were supportive of the Rule Change Panel’s proposed decision subject to addressing certain issues.

Synergy raised concerns that the proposed changes to Appendix 5 of the Market Rules will negatively impact on Synergy (as the sole retailer with non-interval meters) relative to other Market Participants. If Synergy loses a non-interval meter (that then is upgraded to an interval meter as part of the transfer) to another Market Customer, Synergy continues to incur IRCR charges for that meter until three months after the churn, while a Market Customer that loses an interval meter to another Market Customer ceases to incur IRCR charges for that interval meter from the date of transfer. Synergy noted that the market should have a level playing field for all Market Participants, and proposed guidelines for the calculation of the relevant IRCRs in these situations.

Bluewaters reiterated its concern that new interval meters will receive ‘free IRCR’ for the first three months of operation as a result of the combined effect of: (a) changing the meter ownership reference month (also referred to as the responsible party reference month) to month n; and (b) keeping the meter data reference month for new meters at month n-3. Bluewaters was of the opinion that this represents a subsidy to new meters and therefore gives rise to economic inefficiency and can result in inefficient overinvestment in new interval meter installations. Bluewaters reiterated its position that changing the meter data reference month for new meters to month n (using the settlement adjustment process to manage the uncertainty and/or inaccuracy arising from this approach) would provide a more robust case for promoting economic efficiency, which in turn promotes the Wholesale Market Objectives.

Bluewaters further noted that if the Rule Change Panel decides to maintain month n-3 as the meter data reference month for new meters, there should be a provision in the Market Rules to recover the ‘free IRCR’ from the new meters, and pay the recovered costs to the parties who subsidised those costs (i.e. the existing meters).

Copies of the submissions received during the second submission period are available in full on the Rule Change Panel’s website. All issues raised in the submissions received during the second submission period are outlined in Appendix A of this report.

The assessment by submitting parties as to whether the proposal would better achieve the Wholesale Market Objectives is summarised below:

Submitter	Wholesale Market Objective Assessment
AEMO	AEMO considers that the proposed amendments will better address Wholesale Market Objectives (a), (b) and (d).
Alinta Energy	Alinta agrees with AEMO’s assessment that the broader rule change, which seeks to minimise the prudential risk arising from a defaulting Market Customer’s IRCR liabilities, better facilitates the achievement of Wholesale Market Objectives (a), (b) and (d).

Submitter	Wholesale Market Objective Assessment
Bluewaters	Bluewaters considers that the retention of month n-3 as the meter data reference month for new meters results in economic inefficiency and therefore is inconsistent with Wholesale Market Objective (a). Bluewaters did not assess other aspects of the proposal against the Wholesale Market Objectives.
Community Electricity	Not provided.
Synergy	Synergy is of the view that the proposed amendments will enable the Market Rules to better facilitate Wholesale Market Objectives (a), (b) and (c); subject to addressing the issues raised in its submission.

3.6 The Rule Change Panel’s Response to Submissions Received During the Second Submission Period

The Rule Change Panel’s response to each of the specific issues raised in the second submission period is detailed in Appendix A of this report. A more general discussion of the proposal, which addresses the main issues raised in the submissions and the Rule Change Panel’s response to these issues, is available in section 6.2 of this report.

3.7 Call for Further Submissions

On 10 April 2018, the Rule Change Panel published a call for further submissions. The Rule Change Panel issued this call for further submission because AEMO had provided it with revised estimates of the time and cost to implement the Amending Rules as proposed in the Draft Rule Change Report,⁶ which were materially different from those previously provided and reported in the Draft Rule Change Report. As a consequence, the Rule Change Panel determined that additional consultation with stakeholders was required.

For the call for further submissions, the Rule Change Panel conducted a more detailed cost-benefit analysis of RC_2017_06 by comparing:

- the RC_2017_06 Scenario, where RC_2017_06 is implemented with the Amending Rules as proposed in the Draft Rule Change Report; vs
- the Alternative Scenario, where the Rule Change Panel approves RC_2017_06 in a modified form such that the presently unaccounted for prudential exposure will be covered by Credit Support.

The cost-benefit analysis indicated a payback period of less than four years, based on very conservative assumptions.

Further details about the cost-benefit analysis are available in section 3 of the call for further submissions, and in section 6 and Appendix D of this report.

⁶ The proposed Amending Rules are available in the Draft Rule Change Report, which is available on the Rule Change Panel’s website.

In the call for further submissions, the Rule Change Panel sought feedback from stakeholders on the following questions:

1. What impact do AEMO's updated cost estimate and this cost-benefit analysis have on your views of RC_2017_06?
2. Do you agree with the Rule Change Panel's approach to the cost-benefit analysis of RC_2017_06? If not, please provide reasons and propose an alternative approach.
3. What are your per dollar costs of providing Credit Support?⁷
4. Given the nature of AEMO's investment in systems and your costs to implement RC_2017_06:
 - (a) What do you consider to be a reasonable payback period?
 - (b) What do you consider to be an appropriate discount rate for use in this cost-benefit analysis?

The call for further submissions is available in full on the Rule Change Panel's website.

3.8 Submissions Received During the Further Submission Period

The further submission period was held between 10 April 2018 and 2 May 2018. The Rule Change Panel received submissions from Alinta Energy, Blair Fox, Change Energy, Community Electricity, Perth Energy and Synergy.

The submissions of Alinta Energy, Blair Fox, Change Energy and Community Electricity expressed support for the Rule Change Proposal.

Perth Energy objected to the Rule Change Proposal because it considered that a payback period of three to four years, as indicated in the call for further submissions, is too long considering that the State Government is considering reforms to the Reserve Capacity Mechanism. Perth Energy considered that the payback period for RC_2017_06 should be no longer than 12 months.

Synergy considered that a reasonable payback period would be three to five years.

Perth Energy stated that it would prefer AEMO to take a holistic approach to this issue, and to focus on implementing the more fundamental changes required to the settlement system, such as weekly settlement and daily determination of Market Participants' IRCRs.

Perth Energy expressed the view that, as the market has carried this risk since market start, Perth Energy is happy to continue to carry this risk until a fit for purpose solution can be put in place that aims to provide larger benefits and works towards reducing the amount of Credit Support held by Market Participants.

Alinta Energy and Change Energy expressed the view that the Alternative Scenario would negatively impact on Wholesale Market Objectives (a), (b) and (d). Perth Energy expressed the view that, while it does not support the RC_2017_06 Scenario, it considers the Alternative Scenario to be an even worse solution that would impede competition and efficiency in the WEM.

Blair Fox noted that the current prudential security mechanism in the Market Rules is inefficient and a barrier to entry.

⁷ The Rule Change Panel noted that this information would be kept confidential and used to verify the Rule Change Panel's assumptions on the cost of providing Credit Support.

Perth Energy and Synergy expressed the view that the redactions of certain elements in the cost-benefit analysis made it difficult to assess the analysis.

Perth Energy considered that the cost-benefit analysis should have compared both the RC_2017_06 Scenario and the Alternative Scenario with the Status Quo Scenario.

Community Electricity estimated the payback period to be much shorter than estimated in the cost-benefit analysis published in the call for further submissions.

Change Energy, Community Electricity and Synergy expressed the view that the decision whether to accept the proposal should not be based solely on a cost-benefit analysis and should also take into account intangible aspects of the proposal.

Change Energy and Community Electricity provided information about the cost of providing Credit Support.

Change Energy noted that it does not believe that the payback period is the appropriate measure to evaluate the Rule Change Proposal. However, to the extent the analysis is complete, the discount rate should reflect the risk to AEMO in investing in the project. As AEMO can recover operating and capital expenditures through Market Fees, the investment risk is minimal, which should result in a minimal discount rate.

Community Electricity noted that retailers factor the costs of Credit Support into their retail prices. Thus, the lower amount Credit Support that would be needed under the RC_2017_06 Scenario would lead to much lower retail prices than in the Alternative Scenario.

Community Electricity also noted that removing the time lag for the responsible party reference month would remove the business risk of asymmetric liabilities in regards to the first churn of customers (that affects Synergy) and changing Reserve Capacity Prices (that affect all Market Customers), as well as unnecessary administrative complexity in the Market Rules.

Copies of the submissions received during the further submission period are available in full on the Rule Change Panel's website, excluding information that submitters provided on a confidential basis.

The assessment by submitting parties as to whether the proposal would better achieve the Wholesale Market Objectives is summarised below:

Submitter	Wholesale Market Objective Assessment
Alinta Energy	Alinta did not provide an assessment in its further submission, but provided an assessment in previous submissions.
Blair Fox	Blair Fox believes that RC_2017_06 will better facilitate the achievement of Wholesale Market Objectives (a), (b) and (d).
Change Energy	Change Energy previously provided its assessment of RC_2017_06 against the Wholesale Market Objectives; and indicated in its further submission that the alternative of simply increasing Credit Support to cover the n-3 IRCR exposure is extremely inefficient and goes against Wholesale Market Objectives (a), (b) and (d).

Submitter	Wholesale Market Objective Assessment
Community Electricity	Not provided.
Perth Energy	Not provided.
Synergy	Synergy is of the view that the proposed amendments will enable the Market Rules to better facilitate Wholesale Market Objectives (a), (b) and (c); subject to addressing the issues raised in its submission.

3.9 The Rule Change Panel’s Response to Submissions Received During the Further Submission Period

The Rule Change Panel has taken into account the feedback provided in the further submission period and has updated its cost-benefit analysis accordingly. The updated cost-benefit analysis is provided in Appendix D of this report.

The Rule Change Panel’s response to each of the specific issues raised in the further submission period is detailed in Appendix B of this report. A more general discussion of the proposal, which addresses the main issues raised in submissions received in the first, second and further submission periods, and the Rule Change Panel’s response to these issues, is available in section 6.2 of this report.

3.10 Public Forums and Workshops

No public forums or workshops were held in regard to this Rule Change Proposal.

4. The Rule Change Panel’s Draft Assessment

The Rule Change Panel’s draft assessment against clauses 2.4.2 and 2.4.3 of the Market Rules and analysis of the Rule Change Proposal are provided in section 5 of the Draft Rule Change Report, available on the Rule Change Panel’s website.

5. The Rule Change Panel’s Proposed Decision from the Draft Rule Change Report

The Rule Change Panel’s proposed decision in the Draft Rule Change Report was to accept the Rule Change Proposal as modified by the amendments outlined in section 5.3 and specified in Appendix B of the Draft Rule Change Report. The modified proposed Amending Rules were presented in section 7 of the Draft Rule Change Report.

The Rule Change Panel made its proposed decision on the basis that the proposed Amending Rules, as amended following the first submission period:

- will reduce the need for any additional Credit Support to mitigate the identified prudential risk;
- will allow the Market Rules to better achieve Wholesale Market Objectives (a), (b) and (d); and are consistent with the remaining Wholesale Market Objectives; and
- are supported by the MAC.

Additional detail outlining the analysis behind the Rule Change Panel's proposed decision is provided in section 5 of the Draft Rule Change Report.

6. The Rule Change Panel's Final Assessment

6.1 Assessment Criteria

In preparing its Final Rule Change Report, the Rule Change Panel must assess the Rule Change Proposal in light of clauses 2.4.2 and 2.4.3 of the Market Rules.

Clause 2.4.2 of the Market Rules states that the Rule Change Panel "*must not make Amending Rules unless it is satisfied that the Market Rules, as proposed to be amended or replaced, are consistent with the Wholesale Market Objectives*". Additionally, clause 2.4.3 of the Market Rules states that, when deciding whether to make Amending Rules, the Rule Change Panel must have regard to:

- any applicable statement of policy principles the Minister has issued to the Rule Change Panel under clause 2.5.2 of the Market Rules;
- the practicality and cost of implementing the proposal;
- the views expressed in submissions and by the MAC; and
- any technical studies that the Rule Change Panel considers necessary to assist in assessing the Rule Change Proposal.

In making its final decision, the Rule Change Panel has had regard to each of the matters identified in clauses 2.4.2 and 2.4.3 of the Market Rules as follows:

- the Rule Change Panel's assessment of the Rule Change Proposal against the Wholesale Market Objectives is available in section 6.5 of this report;
- the Rule Change Panel notes that there has not been any applicable statement of policy principles from the Minister in respect of this Rule Change Proposal;
- the Rule Change Panel's assessment of the practicality and cost of implementing the Rule Change Proposal is available in section 6.6 of this report;
- a summary of the views expressed in submissions and by the MAC is available in section 3 and Appendix C of this report. The Rule Change Panel's responses to the submissions is available in Appendix A of the Draft Rule Change Report, and in section 6.2, Appendix A, and Appendix B of this report; and
- the Rule Change Panel does not believe a technical study in respect of this Rule Change Proposal is required and therefore has not commissioned one.

The Rule Change Panel's assessment is presented in the following sections.

6.2 Assessment of the Proposed Changes

The Rule Change Panel's overall assessment of the following aspects of the Rule Change Proposal has not changed since the publication of the Draft Rule Change Report:

- the change in responsible party reference month;⁸
- changes to the IRCR publication timeline; and

⁸ See footnote 3 for a definition of the responsible party reference month. The responsible party reference month is currently n-3, which is one of the reasons for the unaccounted for prudential exposure. RC_2017_06 proposes to change the responsible party reference month to n.

- transitional provisions for meter ownership in the commencement month.

The Rule Change Panel has undertaken additional assessments of the following aspects of the proposed Amending Rules, mainly in response to issues raised in the second submission period:

- changes to the bilateral Capacity Credit Allocation process and timeline; and
- keeping the meter data reference month for new meters.⁹

The Rule Change Panel has updated its assessment of the general concept of the Rule Change Proposal, mainly in response to AEMO's revised estimates of the time and cost to implement the Amending Rules.

The Rule Change Panel's complete final assessment is presented in the remainder of this section.

6.2.1 General Concept of the Rule Change Proposal

In RC_2017_06, AEMO sought to remove the identified unaccounted for IRCR-related prudential exposure, which would mitigate the need to cover that prudential exposure with Credit Support.

The Rule Change Panel considers that the current situation, where some of the IRCR-related prudential exposure is not accounted for in the prudential regime (the status quo), is not acceptable because:

- it is clearly inconsistent with the Wholesale Market Objectives;
- the design of the Market Rules clearly indicates an intent for all Market Participants to cover their prudential exposure, and the status quo does not achieve this intent because:
 - some Market Customers are not required to provide sufficient Credit Support to cover their own prudential exposure, leaving the associated credit risk to be carried by the market; while
 - all other Market Participants are required to provide sufficient Credit Support to cover their own prudential exposure; and
- the status quo results in an unjustifiable cross-subsidy to some Market Customers.

In its Rule Change Proposal, AEMO noted that the identified credit risk could alternatively be mitigated by adjusting the Credit Limit determination methodology, through a simpler Rule Change Proposal in combination with a Procedure Change Proposal, to more accurately reflect the prudential exposure. AEMO decided to not pursue this alternative to avoid an unnecessary, burdensome requirement for additional Credit Support.

The Rule Change Panel agrees with AEMO and most of the submitters that the need for Credit Support to cover the identified unaccounted for prudential exposure should be reduced as far as reasonably possible. The Rule Change Panel considers that the proposed change to the responsible party reference month in the IRCR calculation and the amendments to the Capacity Credit Allocation process will remove the unaccounted for prudential exposure and therefore the need to cover this exposure with Credit Support.

⁹ See footnote 5 for a definition of the meter data reference month for new meters. The meter data reference month for new meters is currently n-3. RC_2017_06 does not propose any changes to the meter data reference month for new meters.

As stated in section 3.7 of this report, the Rule Change Panel has undertaken a cost-benefit analysis assessing:

- the RC_2017_06 Scenario, where RC_2017_06 is implemented with the Amending Rules as proposed in this Final Rule Change Report;¹⁰ vs
- an Alternative Scenario, where the Rule Change Panel approves RC_2017_06 in a modified form, such that the presently unaccounted for prudential exposure would be covered by Credit Support.

The Rule Change Panel undertook a detailed analysis of the currently unaccounted for prudential exposure; and estimates that the maximum IRCR-related prudential exposure that will need to be covered by Credit Support will be about \$69 million lower under the RC_2017_06 Scenario than under the Alternative Scenario.¹¹ The assumptions used to make this estimate are explained in Appendix A of the call for further submissions and in Appendix D of this report.

The additional Credit Support under the Alternative Scenario would impose a significant financial burden on Market Customers, and could even lead to a Market Customer default, resulting in Default Levies for all other Market Participants, which is what AEMO's proposal is seeking to avoid. Higher Credit Support also leads to additional capital costs for Market Customers, which would likely be passed on to consumers, and would present a barrier to competition.

The Rule Change Panel initially estimated the payback period for implementing RC_2017_06 instead of the Alternative Scenario to be less than four years; and after receiving additional information from Market Customers about their Credit Support costs, estimates the payback period to be significantly shorter – less than 2 years.¹²

The Public Utilities Office indicated at the 9 May 2018 MAC meeting that the current timeline for the Government's reform program is:

- no material changes to the Reserve Capacity Mechanism are expected to take effect before the 2020 reserve Capacity Cycle, which corresponds to the 2022 Capacity Year; and
- the implementation of security constrained dispatch, which is expected to result in significant changes to AEMO's systems, is not expected to be completed before late 2022.

Therefore, the Rule Change Panel considers that RC_2017_06 is likely to achieve payback before the Government's reform program is implemented, and that this payback period is acceptable to the Rule Change Panel and most Market Customers.¹³

¹⁰ The Rule Change Panel's initial cost-benefit analysis, as published in the call for further submissions, was based on the Amending Rules as proposed in the Draft Rule Change Report. The further changes to the Amending Rules that the Rule Change Panel makes in this Final Rule Change Report have no impact on the cost-benefit analysis.

¹¹ It was estimated in the Draft Rule Change Report that \$150 million to \$190 million of Credit Support would be needed to cover the unaccounted for prudential exposure. However, this estimate did not fully take into account the ability of Market Customers with Capacity Credits to use their Capacity Credits to offset their IRCR-related liabilities. Therefore the estimate in the Draft Rule Change Report represents an upper bound on the uncovered prudential exposure.

For its cost-benefit analysis, the Rule Change Panel recognised some income from Capacity Credits in the estimate of the unaccounted for prudential exposure. As it is uncertain how the prudential regime would actually be amended in the Alternative Scenario, it is not clear what the actual difference in Credit Support would be between the two scenarios. A conservative assumption has been used for the cost-benefit analysis.

¹² Details for the cost-benefit analysis are available in the call for further submissions and in Appendix D of this report.

¹³ In response to the call for further submissions, Synergy suggested that the payback period should be 3 to 5 years, while Perth Energy suggested it should be less than 12 months. Alinta, Change Energy, Community Electricity and Blair Fox

6.2.2 Change in Responsible Party Reference Month

Under the current Market Rules, in the event of a default, a Market Customer would still incur IRCR-related liabilities for three Trading Months after the time of its default. This is due to the current practice of calculating the IRCR liability for Trading Month n based on the Meter Registry data (including details of the responsible party for each meter) for the Trading Month three months prior to that Trading Month n (i.e. Trading Month n-3).

Changing the responsible party reference month from n-3 to n will not only reduce the need for additional Credit Support from Market Customers, but will also avoid Market Customer issues associated with incurring liabilities for a load for three months after the end customer has been lost.

The Rule Change Panel notes that, as outlined in AEMO's submission in the first submission period, the proposed change in the responsible party reference month from Trading Month n-3 to Trading Month n is not the reason that new loads will not incur IRCR liabilities in the first three months after being energised. This is already the case in the current regime because the IRCR for loads that were not registered during the preceding Hot Season are based on meter data in Trading Month n-3.

The Rule Change Panel supports the change of the responsible party reference month from n-3 to n. However, the Rule Change Panel has identified that the specific changes to Step 5A of Appendix 5 would result in unequal treatment of new non-interval meters and new interval meters. New interval meters that are registered after n-3 are not included in the IRCR calculation of month n, while new non-interval meters in month n will incur IRCR. The Rule Change Panel considers that new interval meters and new non-interval meters should be treated consistently for the purposes of the IRCR calculation,¹⁴ and as proposed in the Draft Rule Change Report, has decided to reverse the proposed changes to Step 5A of Appendix 5 so that non-interval meter growth beyond month n-3 is not considered in the IRCR calculation. No concerns were raised with this approach during the second submission period.

6.2.3 Changes to the Bilateral Capacity Credit Allocation Process and Timeline

AEMO proposed changes to open the window for bilateral allocations before the relevant Trading Month and to introduce a mechanism that locks in Capacity Credit Allocations. The Rule Change Panel considers that these changes will:

- preserve Market Customers' ability to mitigate their prudential exposure; and
- enable AEMO to remove the prudential risk that a Capacity Credit Allocation taken into account for the calculation of the Outstanding Amount could not be honoured (via an accompanying Procedure Change Proposal).¹⁵

The Rule Change Panel supports AEMO's proposal to resolve any over-allocation of Capacity Credits to a Market Customer above its IRCR by settling the over-allocated

expressed their support for RC_2017_06 in the light of the cost-benefit analysis in the call for further submissions, which implies that they consider a payback period of under four years acceptable.

¹⁴ While assessing this Rule Change Proposal, the Rule Change Panel has identified a manifest error in the calculation of the IRCR for the New Notional Wholesale Meter, which represents the new non-interval meters that did not exist in the relevant Hot Season. The Rule Change Panel is addressing this matter under Rule Change Proposal RC_2018_01 (New Notional Wholesale Meter Manifest Error).

¹⁵ AEMO can amend the Outstanding Amount calculation in the Market Procedure: Prudential Requirements to ensure that the Outstanding Amount is based on the actual Capacity Credit Allocations for a Trading Month rather than the Capacity Credit Allocations for a previous Trading Month.

Capacity Credits at the Reserve Capacity Price. No issues were raised in submissions regarding this approach.

The Rule Change Panel also supports AEMO's proposal to allow Market Generators two Business Days after the termination of Capacity Credits to amend their Capacity Credit Allocations to eliminate any over-allocation¹⁶ before AEMO performs any needed rectification. No issues were raised in submissions regarding this approach.

However, the Rule Change Panel has identified several issues with the proposed implementation of the concept as outlined below.

6.2.3.1 Capacity Credits Allocated from a Market Generator can Exceed Capacity Credits it is Allowed to Trade Bilaterally

Issues Identified after the First Submission Period

Under the drafting proposed in the Rule Change Proposal, it is possible that a Market Generator could have more Capacity Credits allocated to other Market Participants than it is allowed to trade bilaterally (Market Generator over-allocation). The Rule Change Panel considers that this presents an unnecessary prudential risk¹⁷ to the market.

Market Generator over-allocation can occur under the following scenarios:

1. While the proposal seeks to limit the number of Capacity Credits a Market Generator can allocate, it does so by limiting the number of Capacity Credits that can be allocated in a single Capacity Credit Allocation Submission. Since a Market Generator can now make multiple Capacity Credit Allocation Submissions there is a potential for over-allocations to occur if multiple submissions are approved and the sum of all Capacity Credits in these submissions is too high. The Rule Change Panel has made changes to the Amending Rules to include an additional validation of Capacity Credit Allocation Submissions to address this issue.
2. A Facility transfer can result in Market Generator over-allocation if the transfer is enacted after the relevant Capacity Credit Allocations for a Trading Month are locked in, but before the end of the Trading Month. The Rule Change Panel has made changes to the Amending Rules to forbid any Facility transfers that would result in a Market Generator not holding sufficient Capacity Credits to fulfil all of its locked in Capacity Credit Allocations. The Rule Change Panel notes that this means that a Market Generator may have to reverse Capacity Credit Allocations to transfer a Facility and might therefore rely on the relevant Market Customers' co-operation. However, this supports the concept that a Capacity Credit Allocation is a binding transaction.
3. A Market Generator over-allocation can also occur if a Capacity Credit is terminated. In this instance, the proposed drafting provides that the affected Market Generator can reduce one or multiple of its locked in Capacity Credit Allocations to rectify the over-allocation. However, the Rule Change Panel considers that, where the termination of a Capacity Credit is the result of a voluntary Capacity Credit reduction, this places an unnecessary prudential risk on the market and the affected Market Customers. The Rule Change Panel has made changes to the Amending Rules to prevent a voluntary reduction of Capacity Credits if this would result in a Market Generator over-allocation.

¹⁶ In this case, an over-allocation is where a Market Generator has allocated more Capacity Credits in total than it is allowed to allocate bilaterally.

¹⁷ The prudential risk is that, in the case of a Market Generator over-allocation, the over-allocated Capacity Credits will still reduce the IRCR liabilities of the Market Customer that they are allocated to and therefore its Outstanding Amount. This could lead to a Market Customer having insufficient Credit Support.

Issues Identified after the Second Submission Period

Several clauses in the proposed Amending Rules in the Rule Change Proposal and Draft Rule Change Report make reference to clause 4.14.9 of the Market Rules. The proposed references to clause 4.14.9 are to ensure that a Market Generator does not bilaterally allocate more Capacity Credits to Market Customers than it holds and is permitted to trade bilaterally at any point in time. However, as Synergy noted in its second period submission, clause 4.14.9 relates to Certified Reserve Capacity, which is determined years before the start of the relevant Capacity Year. Capacity Credits may differ from the Certified Reserve Capacity and can also be reduced during the relevant Capacity Year. The Rule Change Panel has made further changes to the Amending Rules to correctly ensure that a Market Generator cannot bilaterally allocate more Capacity Credits at any point in time than it is allowed under the Market Rules.

6.2.3.2 Deadline for Reversing Capacity Credit Allocations

Issues Identified after the Second Submission Period

The proposed new clause 9.4.14 allows for the reversal of Capacity Credit Allocations under certain conditions. However, the proposed Amending Rules in the Draft Rule Change Report do not include a deadline after which Capacity Credit Allocations cannot be reversed. As AEMO noted in its second period submission, this allows for reversals to be made after AEMO starts its settlement process for the relevant Trading Month. The Rule Change Panel considers that allowing reversals to occur during the settlement process is unnecessary and may increase implementation costs by increasing the complexity of the settlement processes. The Rule Change Panel has therefore made further changes to the Amending Rules, consistent with AEMO's suggestion, to restrict the reversal of Capacity Credit Allocations to the time before the relevant Interval Meter Deadline.

6.2.3.3 Process for Capacity Credit Allocations

Issues Identified after the First Submission Period

The Rule Change Panel has decided to make several minor changes to the proposed drafting of the process for Capacity Credit Allocations to improve clarity and readability.

- The drafting proposed in the Rule Change Proposal states that a Capacity Credit Allocation Submission must be in the form specified by AEMO and must include the required information, and requires AEMO to reject a submission that does not fulfil these prerequisites. The Rule Change Panel considers that a transaction that fails to meet these prerequisites does not actually qualify as a Capacity Credit Allocation Submission. Therefore, AEMO would not reject a submission but would reject such a request as an invalid attempt to submit a Capacity Credit Allocation Submission. The Rule Change Panel has made changes to the Amending Rules to remove any references that imply that a Capacity Credit Allocation Submission can exist without meeting the above mentioned prerequisites.
- The drafting proposed in the Rule Change Proposal implies that AEMO must decide whether to approve or reject a Capacity Credit Allocation Submission by placing an obligation on AEMO to inform the submitting Market Generator whether the submission was approved or rejected. To improve readability, the Rule Change Panel has made changes to the Amending Rules to include a specific obligation on AEMO to decide whether to approve or reject the Capacity Credit Allocation Submission.

- The Rule Change Panel has made changes to the Amending Rules to ensure that, where AEMO approves a Capacity Credit Allocation Submission, the required notification must include the details of the Capacity Credit Allocation Submission, and not just that the submission has been approved.
- That DSM Capacity Credits cannot be traded bilaterally should not be an explicit reason for AEMO to reject a Capacity Credit Allocation Submission, as Capacity Credit Allocation Submissions do not specify facility types. The exclusion of DSM Capacity Credits will be enforced through restrictions on the total number of Capacity Credits that a Market Generator can allocate. Therefore, the Rule Change Panel has changed the Amending Rules to remove the explicit obligation for AEMO to reject a Capacity Credit Allocation Submission that includes DSM Capacity Credits.
- The Rule Change Panel has changed the structure of section 9.4 of the Amending Rules to first set out the normal process for Capacity Credit Allocations (under which the generator makes a submission and then the customer accepts that submission); followed by possible variations, including withdrawal of a submission, reversal of a Capacity Credit Allocation at the request of the relevant participants, and amendment of Capacity Credit Allocations following AEMO's reduction of the Capacity Credits of a generator. The Rule Change Panel has also decided to include the provisions for identifying and processing Market Generator over-allocations caused by a Capacity Credit reduction in the same section as all other provisions related to Capacity Credit Allocations, not in a separate section of the Market Rules. The Rule Change Panel considers that these changes improve the readability of the Capacity Credit Allocation process in the Market Rules.
- The Rule Change Panel has made changes to the Amending Rules to make the timelines under which AEMO must process submissions and withdrawals of submissions and make notifications to relevant Market Participants explicit, to provide certainty to Market Participants that their requests are processed promptly. The Rule Change Panel considers that these actions can be easily automated, and that AEMO can therefore reasonably undertake these actions within one Business Day.

Issues Identified after the Second Submission Period

The Rule Change Panel considers that clause 9.3.6, which currently allows Market Participants to provide Capacity Credit Allocation Submissions, and was proposed to be amended to include Capacity Credit Allocation Acceptances in the Draft Rule Change Report, is unnecessary as the provisions are already included in section 9.4. The Rule Change Panel has therefore changed the Amending Rules to remove clause 9.3.6.

6.2.4 Changes to IRCR Publication Timeline

AEMO proposed changes to the timeline for calculating the IRCR as a consequence of the proposed change to base the IRCR calculation for Trading Month n on the Meter Registry data, including meter ownership, from Trading Month n.

Moving the timeline for the calculation of the IRCR calculation from before the relevant Trading Month to after the relevant Trading Month (i.e. to five Business Days before the Interval Meter Deadline for the relevant Trading Month) will ensure that the IRCRs reflect the meter ownership in the relevant Trading Month.

Including the recalculation of IRCRs in the settlement adjustment process will rectify any inaccuracy of meter ownership that may occur as a result of the proposed new timeline for

the IRCR calculation. Under the proposed timeline, the IRCR is calculated before the Interval Meter Deadline for the relevant Trading Month, while the IRCR is currently calculated well after the Interval Meter Data Deadline for the relevant Trading Month.

Introducing an Indicative IRCR, to be published before the relevant Trading Month, will support the Outstanding Amount Calculation and inform Market Customers for their billing processes and bilateral allocation of Capacity Credits.

The Rule Change Panel agrees with the proposed changes to the timeline for calculating the IRCR. No issues were raised in submissions regarding the proposed changes to the timeline.

The Rule Change Panel has also identified that, under the current Market Rules, the calculation of the Relevant Demand for a Demand Side Programme is based on the IRCR Contribution of the Associated Loads and therefore on the IRCR. The Relevant Demand is used for the Non-Balancing Dispatch Merit Order and is therefore needed during the Trading Month for which it applies. This is not possible if the IRCR for a Trading Month is calculated retrospectively. The Rule Change Panel has discussed the matter with AEMO and has changed the Amending Rules so the calculation of the Relevant Demand for Demand Side Programmes is based on the Indicative IRCR for the relevant Trading Month.

6.2.5 Keeping the Meter Data Reference Month for New Meters

Assessment of the General Concept

Under the current Market Rules, new interval meters incur no IRCR charges for the first three months after their registration, and abolished interval meters continue to incur IRCR charges for three months after their termination. Changing the responsible party reference month from month $n-3$ to month n addresses the risk evident in the situation of a defaulting Market Customer and removes the current issue that Market Customers incur IRCR liabilities for meters until three months after the termination of a meter.

Moving the responsible party reference month from $n-3$ to n , but retaining the current meter data reference month for new meters ($n-3$) means that interval meters in the future:

- will continue to not incur IRCR charges for the first three months that they are registered; but
- will no longer incur IRCR charges for the three months following their termination.

Therefore a meter that exists for x months will only incur IRCR charges for $x-3$ months.

In its first period submission, Bluewaters raised this mismatch as a concern on the grounds that it led to a subsidy of new meters' IRCR costs by all Market Customers. In reality this situation already exists, although Bluewaters inadvertently suggested that the delay in including new meters in the IRCR calculations was due to the proposed amendments.

It has also been suggested that the charging of abolished Loads for three months after their termination constitutes a 'payback' for the three-month IRCR exemption provided to new interval metered loads.

However, the Rule Change Panel notes that:

- Loads that already existed at the start of the WEM¹⁸ never received the three-month IRCR exemption, but are still subject to IRCR charges for three months after their termination; and

¹⁸ In this case, meters that had readings for at least month $n-3$.

- Loads usually have a long lifespan with no expectation of termination, in which case there will never be a 'payback' for the three-month IRCR exemption.

Therefore, the Rule Change Panel considers that the IRCR exemption for the first three months after a meter is registered, and the continuation of IRCR charges for three months after a meter is terminated, constitute two separate and distinct cross-subsidies.

The cross-subsidy from recently terminated meters to existing meters is caused by the time lag in the responsible party reference month in the IRCR calculation. RC_2017_06 reduces the current prudential risk by removing the unaccounted for prudential exposure, and part of the solution is to remove the time lag for the responsible party reference month in the IRCR calculation, which also removes the related cross-subsidy.

However, the choice of meter data reference month for new meters has no effect on the unaccounted for prudential exposure, and so no change is needed to achieve the purpose of this Rule Change Proposal.

AEMO notes in its proposal that the situation mentioned above could be mitigated by changing the reference for meter data for new meters from month n-3 to month n. However, AEMO did not propose this additional change because it would result in Market Customers losing certainty over their IRCR before on-billing. The Rule Change Panel agrees with AEMO's position and considers that changing the meter data reference month for new meters to month n would have the following undesirable results.

- The uncertainty of Market Customers' IRCRs would result in uncertainty of Market Customers' Outstanding Amounts and would therefore increase the prudential risk for the market.
- The Relevant Demand for Demand Side Programmes could not be determined adequately for dispatch. The calculation of the Relevant Demand for Demand Side Programmes is based on the IRCR of the Associated Loads (as outlined in section 6.2.4 of this report, the Rule Change Panel has decided to amend the determination of the Relevant Demand to be based on the relevant Indicative IRCR).

The Rule Change Panel agrees with Bluewaters that the current situation (in which new meters do not incur IRCR charges for the first three months after their registration) is not ideal; but maintains its position that changing the meter data reference month for new meters to month n is impractical and inefficient. The Rule Change Panel does not consider that the solution proposed by Bluewaters in its first period submission (as summarised in section 4.3 of the Draft Rule Change Report) is viable, as the Indicative IRCRs need to be as accurate as possible because they are used for customer billing, prudential monitoring and the determination of Relevant Demands for Demand Side Programmes (which need to be locked in during the actual Trading Month n). The Rule Change Panel considers that it is not reasonably possible for Market Customers to estimate the IRCR or the relevant meter readings (as suggested by Bluewaters) for new meters before the actual month if the reference for meter data is moved to month n because the IRCR is determined by the share of consumption during the 4 Peak SWIS Trading Intervals. This means the Market Customer would have to estimate the consumption of the new load in the unknown Trading Intervals as well as the absolute consumption during these intervals. The Rule Change Panel considers that the inherent uncertainty of such estimates would create more problems than keeping the meter data reference month at month n-3.

The Rule Change Panel considers that introducing a mechanism to impose IRCR charges on new meters for the first three months of registration, as suggested by Bluewaters (for example by applying an IRCR contribution based on estimates from AEMO), may better

achieve the Wholesale Market Objectives. However, such a mechanism would be challenging to develop and require extensive consultation, and the Rule Change Panel considers it unreasonable to delay the progression of this Rule Change Proposal to include amendments to remove this unrelated issue in the Market Rules. However, the Rule Change Panel notes that the issue could be addressed in a separate Rule Change Proposal.

In its second period submission, Bluewaters suggested that the IRCR-free months for new interval meters could incentivise new interval meter installations over and above the efficient level.

The Rule Change Panel notes that the installation of new interval meters can be the result of:

- the upgrade of an existing, non-interval metered Load; or
- a new Load connecting to the network.

The Rule Change Panel agrees that not charging a new meter for IRCR during the first three months of registration may incentivise the installation of new interval meters by upgrading non-interval meters to interval meters. However, the Rule Change Panel considers that it would be efficient for all contestable Loads to have interval meters, from the perspective that interval meters facilitate competition and efficient allocation of market costs.

The Rule Change Panel does not consider it likely that any additional new Loads will connect to the SWIS because new meters do not incur IRCR charges for three months. This is because the cost of IRCR charges for three months is too small compared with the other costs involved in establishing a new Load to affect a potential consumer's investment decision.

The Rule Change Panel therefore considers that the remaining cross-subsidy is unlikely to have an adverse effect on the behaviour of Market Participants or consumers.

Bluewaters noted in its second period submission that the uncertainty introduced into the IRCR calculation process by the decision to use month n as the responsible party reference month is to be addressed by new provisions to recalculate IRCRs as part of the settlement adjustment process. Bluewaters questioned why the same principle cannot be applied for the uncertainty that would arise from changing the meter data reference month for new meters to month n.

The Rule Change Panel clarifies that:

- the uncertainty that results from using month n as the responsible party reference month will:
 - only materially affect the IRCRs of Market Customers that lose or win meters, and only in a way that those Market Customers should be able to accurately predict, as those Market Customers will know the affected meter's individual deemed contribution to system peak; and
 - have an overall positive effect on the market's prudential exposure, as the overall prudential exposure will reduce significantly; while
- the uncertainty that would result from using month n as the meter data reference month for new meters would:
 - affect all Market Customers' IRCRs, because the IRCR of any Market Customer depends on the total deemed MW contribution of new interval meters in the 4 Peak SWIS Trading Intervals for the relevant month and the relative contribution of that Market Customer's new interval meters;

- affect Market Customers in a way that would be difficult to predict, as the new meters' contribution to system peak in month n would be unknown, especially where new Loads are involved that may be going through construction and/or commissioning processes;
- be likely to have an adverse effect on consumers with new Loads, as their retailer would need to either issue adjustment bills to the consumer once final IRCR values are published, or incorporate a risk premium into its contract offer to account for the uncertainty; and
- make it difficult for AEMO to calculate Market Customers' Outstanding Amounts, which would either increase the market's prudential risk, or to the extent that AEMO acts conservatively, lead to higher prudential costs.

For these reasons, the Rule Change Panel has decided to make no additional changes to the proposed Amending Rules to address this issue, but as previously mentioned, the issue could be addressed in a separate Rule Change Proposal.

Assessment of the Implications for Synergy as the sole Market Customer with Non-Interval Meters

Currently the transfer of a meter (for interval meters and non-interval meters¹⁹) from one Market Customer to another is not reflected in the IRCR charges for the first three months after the transfer. As a result, a Market Customer that loses a meter to another Market Customer still incurs IRCR charges for that meter until three months after the transfer.

The Rule Change Proposal resolves this problem for interval meters by changing the responsible party reference month from n-3 to n. The Rule Change Panel acknowledges that, by keeping the meter data reference month for new interval meters at month n-3, the issue will remain for non-interval meters (as explained in section 3.5 of this report). Synergy is the sole owner of non-interval meters, so it is the only Market Customer that is adversely affected by this issue.

Based on additional information provided by Synergy after the second submission period, the Rule Change Panel considers that the issue affecting non-interval meter transfers is minor compared to the corresponding issue for interval meter transfers, which will be resolved by changing the responsible party reference month. Further, it appears likely that the comparative size of this issue will continue to decrease as existing contestable non-interval meters are upgraded over time.²⁰ The Rule Change Panel also notes that Western Power has proposed changes to its access arrangement for the period from 1 July 2017 to 30 June 2022 (AA4),²¹ to equip all new loads with an interval meter; which would prevent the installation of any new non-interval metered loads, and would further reduce the problem.

The Rule Change Panel considers that a mechanism to apply an IRCR contribution to Loads that upgrade from non-interval to interval metering for the first three months after the upgrade (for example, based on previous non-interval meter readings) may better achieve the Wholesale Market Objectives, but it is unclear whether the potential benefits from such a change would justify the implementation costs.

¹⁹ Non-interval meters that are transferred from one Market Customer to another must be upgraded to interval meters as part of the transfer.

²⁰ The Rule Change Panel is unaware of any current Government timetable for changes to the contestability threshold, which might increase the number of contestable non-interval meters.

²¹ Refer to Western Powers' Access arrangement information dated 2 October 2017 available on the ERA's website under <https://www.era.gov.au/electricity/electricity-access/western-power-network/access-arrangement/access-arrangement-period-2017-2022>.

The development of such a mechanism would require extensive additional time for development, cost-benefit analysis, and consultation. The Rule Change Panel considers it unreasonable to delay the progression of RC_2017_06 to solve the non-interval meter transfer issue because:

- this issue is not related to the unaccounted for prudential exposure issue that is addressed by this Rule Change Proposal;
- this issue is currently of minor impact, as noted by Synergy in its second period submission;
- the impact of this issue is not expected to increase in the near future; and
- the benefits of removing the unaccounted for prudential exposure (which will also remove the corresponding issue for interval meter transfers) are significantly higher than the benefits of addressing this issue.

The Rule Change Panel has decided to make no additional amendments to the Amending Rules to address this issue, but notes that the issue could be assessed as part of a separate Rule Change Proposal.

6.2.6 Transitional Provisions for Meter Ownership in the Commencement Month

AEMO proposed transitional arrangements to implement the proposed rule amendments, as referred to in the Proposed Transitional Provisions in section 2.1 of this report.

The Rule Change Panel is of the view that the even split approach will prolong the presence of the unaccounted for prudential exposure. The situation that a Market Customer would still incur IRCR liabilities following the date on which it defaults would remain in place for three months longer under the even split approach than under the drop dead approach. The Rule Change Panel also agrees with Alinta Energy and Change Energy, who have raised in their submissions that the even split approach would lead to increased complexity, system changes, and implementation costs compared with the drop dead approach.

The Rule Change Panel has consulted with Perth Energy, which supported the even split approach in AEMO's stakeholder consultation, and was informed that Perth Energy supported the even split approach because it appeared fairer, but that the drop dead approach was easier and less costly to implement. Therefore, the Rule Change Panel has made changes to the transitional arrangements to implement the drop dead approach instead of the even split approach.

6.3 Additional Related Issues Identified by the Rule Change Panel

The Rule Change Panel identified several issues with the following related aspects of the Market Rules after the first submission period:

- Special Price Arrangements;
- initial and updated IRCR and Intermittent Load Reserve Capacity Requirement; and
- Reserve Capacity Requirement and associated Peak Demand for the purpose of the IRCR calculation.

The Rule Change Panel's assessment of these issues has not changed since the publication of the Draft Rule Change Report. The full assessment of these issues is provided in the remainder of this section.

6.3.1 Special Price Arrangements

The Rule Change Panel notes that since 1 June 2016 the Market Rules only provide for entering into one type of Special Price Arrangement,²² being Short Term Special Price Arrangements. The provisions for Market Participants to enter into Long Term Special Price Arrangements have been removed from the Market Rules, and no existing Long Term Special Price Arrangements are in place.

Capacity Credits covered by Short Term Special Price Arrangements cannot be traded bilaterally, but the Market Rules (and several of the clauses affected by RC_2017_06 in particular) still distinguish between Capacity Credits covered by Special Price Arrangements that can and cannot be traded bilaterally. The Rule Change Panel considers that the term Short Term Special Price Arrangement implies that there is at least a second form of Special Price Arrangements, and is therefore misleading. Therefore, the Rule Change Panel has decided to make changes to the Amending Rules to:

- remove the defined term Short Term Special Price Arrangement;
- change the term Short Term Special Price Arrangement to Special Price Arrangement in all its occurrences in the Market Rules; and
- remove all references to Capacity Credits covered by Special Price Arrangements that can be traded bilaterally from the Market Rules.

6.3.2 Initial and Updated IRCR and Intermittent Load Reserve Capacity Requirement

Under the current Market Rules AEMO must:

- determine an initial IRCR by 10 September, which then applies from the start of the Capacity Year on 1 October; and
- update the initial IRCR monthly, at least five Business Days before the start of each Trading Month of the Capacity Year, to apply from the start of the Trading Month.

In practice, the IRCR is calculated for each Trading Month before the relevant Trading Month, in accordance with the Market Rules. In particular, the IRCR for a Trading Month *n* is based on the Meter Registry data for Trading Month *n-3*. The concepts of initial and updated IRCR therefore have no relevance under the current Market Rules.

Under the proposed changes, the IRCR will be calculated retrospectively after the actual Trading Month it applies to, and an Indicative IRCR will be calculated before the relevant Trading Month. The concepts of Indicative IRCR and retrospective IRCR are not compatible with the concepts of an initial IRCR for the Capacity Year that applies until it gets updated.

The Rule Change Panel has decided to remove the concepts of initial and updated IRCR, and instead clarify that a separate IRCR is calculated for each Trading Month.

This change requires consequential changes to the provisions under which Market Participants provide information to AEMO to support the calculation of the IRCR. However, the current provisions for the timing of providing such information are ambiguous and complicated. The Rule Change Panel proposes to amend the Market Rules to align the timing for the provision of the supporting information with the timing of the Indicative IRCR, and to clarify the times by which such information may be provided. The Rule Change Panel

²² A Special Price Arrangement is an arrangement under section 4.21 of the Market Rules whereby a Market Participant can secure a price for Reserve Capacity that may differ from the Reserve Capacity Price.

notes that this proposed change does not alter the current timelines under which Market Participants provide the supporting information to AEMO.

Under the current Market Rules, the calculation of the Intermittent Load Reserve Capacity Requirement also follows the concept of an initial value and an updated value determined as part of the IRCR calculation. The Rule Change Panel has decided to make consequential changes so that the Intermittent Load Reserve Capacity Requirement will be calculated for each Trading Month, in alignment with the process for Indicative IRCR and the IRCR calculation.

6.3.3 Reserve Capacity Requirement and Associated Peak Demand for the Purpose of the IRCR Calculation

The current Market Rules give AEMO discretion to apply different values for the Reserve Capacity Requirement and the associated peak demand for the purpose of calculating IRCRs, to ensure that the total IRCR of all Market Customers does not exceed the total number of Capacity Credits.²³ However, Appendix 5 of the Market Rules specifies how the Reserve Capacity Requirement must be adjusted for the purpose of the IRCR determination to ensure that the total IRCR of all Market Customers does not exceed the total number of non-DSM Capacity Credits. The Rule Change Panel considers that the separate discretion for AEMO to replace the values is not necessary because the methodology under Appendix 5 already specifies how these values must be replaced. The Rule Change Panel has discussed this matter with AEMO and AEMO supports this approach. Therefore, the Rule Change Panel has decided to remove the discretion for AEMO to replace the values for the Reserve Capacity Requirement and the associated peak demand for the purpose of calculating IRCRs.

6.3.4 Administrative Changes and Manifest Errors

The Rule Change Panel has decided to make the following administrative changes to clauses affected by the Rule Change Proposal:

- correct several instances where the Market Rules refer to clause when referencing a section of the Market Rules, not a clause;
- correct punctuation, typographical and grammatical errors and align with standard drafting conventions;
- remove several surplus spaces; and
- increase clarity.

6.4 Additional Amendments to the Proposed Amending Rules

6.4.1 Additional Amendments following the First Submission Period

Following the first submission period, the Rule Change Panel made some additional changes to the proposed Amending Rules. A summary of these changes, originally presented in section 5.3 of the Draft Rule Change Report, is available in Appendix E of this report. The additional amendments are shown in detail in Appendix B of the Draft Rule Change Report.²⁴

²³ If AEMO would not assign sufficient Capacity Credits to meet the Reserve Capacity Requirement, theoretically the total IRCR of all Market Customers would exceed the total number of Capacity Credits.

²⁴ The Rule Change Panel notes that there was an error in the mark up in Appendix B of the Draft Rule Change Report. The proposed Amending Rules in the Draft Rule Change Report (correctly) do not include new clauses 4.29.5 and 4.29.6 that

6.4.2 Additional Amendments following the Second and the Further Submission Period

Following the second and the further submission period, the Rule Change Panel has made some further additional changes to the proposed Amending Rules. A summary of these changes is provided below. The additional amendments are shown in detail in Appendix G of this report.

Changes to Section 1.26 (section 1.25 in the Draft Rule Change Report) for Transitional Provisions

The Rule Change Panel has renumbered the proposed new section 1.25, which outlines the transitional provisions for RC_2017_06, to section 1.26; as section 1.25 already exists in the Market Rules²⁵.

The Rule Change Panel has changed the name of the new section to better reflect that the transitional provisions relate not only to the calculation of IRCRs, but also to the Capacity Credit Allocation process.

The Rule Change Panel has further changed the new clause 1.26.1 to reflect that it is the Rule Change Panel that makes Amending Rules, not the Final Rule Change Report.

The Rule Change Panel has introduced:

- new clause 1.26.3 to ensure that Market Participants will be allowed to undertake any discretionary activities²⁶ in relation to the Rule Change Commencement Month and subsequent Trading Months under the Post-Amended Rules before the Rule Change Commencement Day;²⁷ and
- new clause 1.26.10 to ensure that Market Participants will be allowed to undertake any discretionary activities in relation to the relevant Trading Months before the Rule Change Commencement Month under the Pre-Amended Rules after the Rule Change Commencement Day.²⁸

The Rule Change Panel has renumbered the clauses in section 1.26 accordingly.

The Rule Change Panel has amended the new proposed clause 1.26.4 (clause 1.25.3 in the Draft Rule Change Report) to clarify that the 12 Peak SWIS Trading Intervals for all required Hot Seasons must be published, independent of the commencement day of the transitional provisions and the Rule Change Commencement Day.

the proposal proposed to include. However, the deletion of the proposed new clauses was not correctly marked up in Appendix B of the Draft Rule Change Report. The mark up should have shown the proposed new clauses 4.29.5 and 4.29.6 in strike through, but instead both clauses were omitted completely. This error had no impact on the draft Amending Rules, as Appendix B provides a mark-up of the proposed Amending Rules of the Draft Rule Change Report against the proposed Amending Rules of the Rule Change Proposal for convenience only.

²⁵ Section 1.25 commenced on 28 April 2018, after the publication of the Draft Rule Change Report. The new section was implemented by the Minister via the *Wholesale Electricity Market Rules Amending Rules 2018* (Gazette 2018/60).

²⁶ Discretionary activities are the activities relating to the Capacity Credit Allocation process, as Market Generators and Market Customers are not obligated to participate in this process.

²⁷ In particular, the Post-Amending Rules (as defined in new clause 1.26.1, the Market Rules as in force immediately after the New Rules come into effect) facilitate that the Capacity Credit Allocation process commences before the start of the relevant Trading Month. This means that the Capacity Credit Allocation process for the Rule Change Commencement Month will commence before the Post-Amending Rules commence.

²⁸ Under the Pre-Amending Rules (as defined in new clause 1.26.1, the Market Rules as in force immediately before the New Rules come into effect), the Capacity Credit Allocation process commences after the end of the relevant Trading Month. This means that the Capacity Credit Allocation process for the last Trading Month before the Rule Change Commencement Month will commence after the Post-Amending Rules commence.

Changes to the Bilateral Capacity Credit Allocation Process and Timeline

The Rule Change Panel has made further changes to clauses 2.31.13(l), 4.25.4CA, 9.4.5(a), 9.4.10(b) and 9.4.15 to correctly ensure that a Market Generator cannot bilaterally allocate more Capacity Credits at any point in time than it is allowed under the Market Rules.

The Rule Change Panel has further changed the proposed clause 9.4.14(a) to include a deadline after which Capacity Credit Allocations can no longer be reversed.

The Rule Change Panel has deleted clause 9.3.6, as the ability of Market Participants to provide Capacity Credit Allocation Submissions (and Capacity Credit Allocation Acceptances) to AEMO is already covered in section 9.4 of the Market Rules.

Administrative Changes and Manifest Errors

The Rule Change Panel has made administrative changes to clauses 1.26.5 (clause 1.25.4 in the Draft Rule Change Report), 2.31.13(l), 4.25.4C, 4.26.2CA, 4.28.1, 4.28.2, 4.28B.8, 4.29.3, 9.4.5, 9.4.10, 9.7.1A, 9.7.1B and 10.5.1 and Appendix 5 to correct punctuation, typographical and grammatical errors and align with standard drafting conventions.

The Rule Change Panel has made amendments to clause 4.25.4C to clarify which of AEMO's actions described in the clause are performed at AEMO's sole discretion.

The Rule Change Panel has further amended clause 4.28B.8 to refer only to the term Special Price Arrangement and not the term Long Term Special Price Arrangement, as this term will be removed in the Amending Rules. The term Long Term Special Price Arrangements was included in clause 4.28B.8 by the Rule Change Panel's Notice of Corrigenda on 24 April 2018, which was after the Draft Rule Change Report was published.

6.5 Assessment against the Wholesale Market Objectives

The Rule Change Panel considers that the current situation, where some of the IRCR-related prudential exposure is not accounted for in the prudential regime (the status quo), is clearly inconsistent with the Wholesale Market Objectives because:

- it shifts credit risk from Market Customers who are net purchasers in the market to all Market Participants, and this cross-subsidy is:
 - inconsistent with **Wholesale Market Objectives (a) and (d)**, as the increased credit risk is likely to be passed through to end-consumers through increased risk premiums; and
 - inconsistent with **Wholesale Market Objective (b)**, as the cross-subsidy reduces confidence in the effectiveness of the prudential regime and places an increased and unfair risk on Market Participants that they cannot avoid or hedge, which could discourage participation in the market;
- the under-procurement of Credit Support would allow a Market Customer that is a net purchaser in the market to shift some of its prudential risk to other Market Participants, which is inconsistent with **Wholesale Market Objective (a)**, because it may encourage business practices or structures that are inefficient and unduly risky; and
- the default of a Market Customer that is a net purchaser in the market may result in a substantial Default Levy that would have to be paid by other Market Participants, which is inconsistent with **Wholesale Market Objective (d)** because the costs of Default Levies will eventually be passed on to end-consumers.

The Rule Change Panel considers that the clear intent of the prudential regime is that AEMO should hold Credit Support for every Market Participant that covers the Market Participant's

expected prudential exposure. The Rule Change Panel is of the view that AEMO must mitigate the credit risk that it has identified. The alternative to the proposed amendments (outlined in this Final Rule Change Report) would be the Alternative Scenario outlined in the call for further submissions and Appendix D of this report.

The Rule Change Panel considers that the Market Rules as a whole, if amended as presented in section 8 of this report, will better achieve Wholesale Market Objectives (a), (b) and (d). This is because the IRCR-related prudential exposure that will need to be covered by Credit Support will be significantly lower than under the Alternative Scenario. The proposed amendments, as outlined in section 8 of this report, will therefore:

- avoid the need to tie up an excessive amount of capital in Credit Support, which increases efficiency and promotes **Wholesale Market Objective (a)**;
- avoid the need for Market Customers to provide excessive Credit Support, and therefore reduce a barrier for entry, which supports competition and promotes **Wholesale Market Objective (b)**; and
- avoid the need for Market Customers to incur excessive Credit Support costs that would likely be passed on to end consumers, which reduces the long-term costs of electricity supplied to customers and promotes **Wholesale Market Objective (d)**.

The Rule Change Panel considers that the proposed changes outlined in section 8 of this report are consistent with the remaining Wholesale Market Objectives.

6.6 Practicality and Cost of Implementation

6.6.1 Cost

AEMO has advised that its costs to implement the proposed amendments to its systems and procedures will be about \$2.7 million.

The Rule Change Panel's initial cost-benefit analysis estimated the payback period for implementing RC_2017_06 instead of the Alternative Scenario to be less than four years, based on conservative assumptions. However, after receiving further information from Market Customers about their costs to provide Credit Support, the Rule Change Panel has estimated the payback period to be significantly shorter – less than 2 years. Further information on the Rule Change Panel's cost-benefit analysis is provided in Appendix D of this report.

In its submissions, Bluewaters mentioned that some changes to its IT systems and settlement processes may be required.

In its second period submission, Alinta Energy noted that the proposed amendments will have implications for Alinta Energy's billing and settlement IT systems as well as its business processes. In its further period submission, Blair Fox indicated that RC_2017_06 would have implications for its business systems.

However, none of the submissions provided an estimate for the associated costs or indicated any concerns about their magnitude.

6.6.2 Practicality

AEMO estimated that it will take approximately 11 months from the point that the Minister approves the Amending Rules for it to develop, test and certify the market system changes.

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

Participants will have to bear minor system or process changes to processes governing their Capacity Credit Allocations and to adjust to the new timelines for IRCR publication and the Capacity Credit Allocation process.

In its second period submission, Alinta Energy noted that the proposed commencement date of 1 October 2018 would give Alinta Energy sufficient time to update its IT systems and business processes.

In its submissions, Bluewaters suggested allowing a six-month implementation period.

In its first period submission, Change Energy advised that a four-month implementation period would be sufficient for it to make the necessary changes to its systems.

In its further period submission, Blair Fox noted that the proposed changes will have implications on its business systems and that it would be able to implement the changes within the proposed timeframes.

In its second period submission, Synergy stated that the proposed changes will require Synergy (and potentially other Market Participants) to amend its Power Purchase Agreements (**PPA**) to ensure the proposed changes do not result in increases to Synergy's prudential exposure.

Synergy considered that the costs and timeframes associated with amending the PPAs should be included in the Rule Change Panel's report and decisions. Specifically, Synergy was concerned that there will be insufficient time between the Final Rule Change Report being published and commencement of the Amending Rules (and triggering the change in law provisions in most Market Participants' PPAs). Therefore, Synergy considered that the proposed commencement date of 1 October 2018 should be extended to allow sufficient time for Synergy and other Market Participants to make any necessary contract changes.

Synergy considered that if the commencement date is not sufficiently extended to allow for such contract changes, Market Participants' prudential exposure is likely to increase dramatically, which is at odds with the purported aim of the Rule Change Proposal to minimise increases to prudential exposure. In a worst case scenario, not ensuring sufficient time for PPAs to be changed, and the increases in prudential exposure caused by this, could result in a Market Participant becoming insolvent.

Synergy clarified (when discussing its second period submission with the Rule Change Panel) that it requests the commencement date for RC_2017_06 be extended to allow 12 months between the approval of the Amending Rules by the Minister and the commencement of the Amending Rules. This is to allow Synergy to make any necessary changes to its PPAs.

The Rule Change Panel notes that this Rule Change Proposal will shift the risk of a Market Participant default from the market in general onto the Market Customers that can manage the risk; and sees no benefit to deferring this arrangement beyond the 11 months that AEMO needs to make the required system changes. The Rule Change Panel considers that this should be sufficient time for all Market Participants to manage any changes to their PPAs and systems, particularly given the length of time that Market Customers have already been aware of the forthcoming potential need to amend their PPAs.

The Rule Change Panel has decided to commence the transitional provisions in the new section 1.26 on 1 August 2018, and to commence the remaining amendments on

1 June 2019. This allows around 11 months for implementation from the due date for the Minister's approval of the Amending Rules.²⁹

6.6.3 Amendments to Associated Market Procedures

The following Market Procedures will require updating as a result of this Rule Change Proposal:

- Market Procedure: Individual Reserve Capacity Requirements; and
- Market Procedure: Capacity Credit Allocation.

The Rule Change Panel considers that the proposed 11 month implementation time is sufficient to develop and process the required changes.

6.7 Protected Provisions, Reviewable Decisions and Civil Penalties

The Amending Rules require AEMO to make a monthly determination of IRCRs (see section 6.3.2 of this report) rather than calculate an initial IRCR that is then updated for each subsequent Trading Month. As part of implementing this concept, the Amending Rules include changes to:

- clause 4.1.24, which currently requires AEMO to publish the initial IRCRs, to instead require AEMO to publish the monthly IRCRs; and
- clause 4.28.7, which currently requires AEMO to determine the initial IRCRs, to instead require AEMO to determine the monthly IRCRs.

Clause 4.1.24 is a Protected Provision, and clause 2.8.3 requires approval from the Minister for Energy for amendments to Protected Provisions. In addition, clause 4.28.7 is a Reviewable Decision.

While it is not the Rule Change Panel's role to make decisions on which parts of the Market Rules are Protected Provisions and Reviewable Decisions:

- if the requirement to publish the initial IRCRs is currently a Protected Provision, then it would be consistent for the requirement to publish the monthly IRCRs to also be a Protected Provision; and
- if the requirement to determine the initial IRCRs is currently a Reviewable Decision, then it would be consistent for the calculation of monthly IRCRs to also be a Reviewable Decision.

In addition, the Rule Change Panel proposes to amend clause 4.15.1 to remove a redundant reference to pre-existing Special Price Arrangements, as outlined in section 6.3.1 of this report. The Rule Change Panel notes that the proposed change does not affect the function of the clause or its eligibility as a Reviewable Decision.

In the Draft Rule Change Report, the Rule Change Panel explicitly sought stakeholder views on whether clause 4.28.7 should remain a Reviewable Decision. Alinta Energy was the one respondent to this request, and expressed the view that, while the rationale for clause 4.28.7 being a Reviewable Decision may have changed due to the proposed amendments, the Public Utilities Office has a significant work plan for the coming years and amendments to the Reviewable Decision regime are not currently a high priority.

Alinta Energy noted that the likelihood of spurious Reviewable Decision requests is low. This is due to the IRCR process allowing for any anomalies to be identified (i.e. between the

²⁹ The Minister can extend the timeframe for his approval of the Amending Rules. The Rule Change Panel will adjust the commencement dates if the Minister approves the Amending Rules after the current due date (29 June 2018).

Indicative IRCR and the actual IRCR processes). As such, Alinta Energy recommended that clause 4.28.7 remain a Reviewable Decision until a more holistic review of Reviewable Decisions is undertaken, noting that such a review is a very low priority.

The Public Utilities Office has not proposed any change to the status of clause 4.1.21 as a Protected Provision or clause 4.28.7 as a Reviewable Decision, and no such changes have been included in the Amending Rules.

This Rule Change Proposal does not amend any civil penalty provisions, nor does the Rule Change Panel consider that any of the proposed new clauses should be a civil penalty provision.

7. The Rule Change Panel's Decision

Based on the considerations set out in this report, the Rule Change Panel's final decision is to accept the Rule Change Proposal in a modified form, as set out in section 8 of this Final Rule Change Report.

7.1 Reasons for the Decision

The Rule Change Panel has made its decision on the basis that the Amending Rules, as amended following the first, second, and further submission periods:

- will remove the need for Credit Support to mitigate the identified unaccounted for credit risk;
- will allow the Market Rules to better achieve Wholesale Market Objectives (a), (b) and (d) and are consistent with the remaining Wholesale Market Objectives; and
- are supported by the MAC.

The Rule Change Panel has estimated that AEMO's system and process changes to implement the Amending Rules will have a payback period of less than 2 years.

Additional detail outlining the analysis behind the Rule Change Panel's decision is outlined in section 6 of this report.

8. Amending Rules

8.1 Commencement

Subject to Ministerial approval, the commencement dates for the amended clauses are as follows:

Rules	Commencement Date
Section 1.26	8:00 AM on 1 August 2018
All remaining amendments	8:00 AM on 1 June 2019

8.2 Amending Rules

The Rule Change Panel has decided to implement the following Amending Rules (~~deleted text~~, added text):

...

1.26. Transitional calculation of Individual Reserve Capacity Requirements and the Capacity Credit Allocation Process

1.26.1. In this section 1.26:

New Rules: Means the Amending Rules made in the Prudential Exposure Final Rule Change Report (other than the Amending Rule with respect to this section 1.26).

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 (RC 2017 06).

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).

Rule Change Commencement Month: Means the Trading Month in which the Rule Change Commencement Day falls.

1.26.2. 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 Month and subsequent Trading Months, 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 Indicative Individual Reserve Capacity Requirements under clause 4.1.23C; and

(b) Capacity Credit Allocations under sections 9.4 and 9.5.

1.26.3. Prior to the Rule Change Commencement Day, notwithstanding that the Pre-Amended Rules continue to apply, each Rule Participant may perform any of the discretionary actions that the Rule Participant is permitted to perform under the Post-Amended Rules, in relation to the Rule Change Commencement Month and subsequent Trading Months, that, if the Post-Amended Rules were in force, the Rule Participant would be permitted to perform under the Post-Amended Rules.

1.26.4 AEMO must determine and publish the 12 Peak SWIS Trading Intervals for each Hot Season for which the 12 Peak SWIS Trading Intervals will be required for the determination of Individual Reserve Capacity Requirements (including the

assessment of Non-Temperature Dependent Loads) under the Post-Amended Rules by the time that is the later of:

- (a) five Business Days after the commencement of this section 1.26; and
- (b) the time specified in clause 4.1.23A of the Post-Amended Rules for the relevant Hot Season.

1.26.5. AEMO must determine and publish the 4 Peak SWIS Trading Intervals for each Trading Month for which the 4 Peak SWIS Trading Intervals will be required for the determination of Individual Reserve Capacity Requirements (including the assessment of Non-Temperature Dependent Loads) under the Post-Amended Rules by the time that is the later of:

- (a) five Business Days after the commencement of this section 1.26; and
- (b) the time specified in clause 4.1.23B of the Post-Amended Rules for the relevant Trading Month.

1.26.6. AEMO must, as soon as practicable, publish an updated settlement cycle timeline for the Financial Year in which the Post-Amended Rules come into effect that meets the requirements under clause 9.16.2 of the Post-Amended Rules for the Trading Months in the Financial Year that will be settled under the Post-Amended Rules.

1.26.7. If before the Rule Change Commencement Day, notwithstanding that the Pre-Amended Rules continue to apply, a Rule Participant performs an obligation under the Post-Amended Rules under clause 1.26.2, then to the extent that the obligation is performed, the Rule Participant is not required to perform any equivalent obligation under the Pre-Amended Rules to the extent that these obligations relate to the Rule Change Commencement Month or subsequent Trading Months.

1.26.8. If before the Rule Change Commencement Day, notwithstanding that the Pre-Amended Rules continue to apply, a Rule Participant is required to perform an obligation that relates to the Rule Change Commencement Month or subsequent Trading Months that it will not be required to perform under the Post-Amended Rules, the Rule Participant is not required to perform the obligation to the extent that it relates to the Rule Change Commencement Month or subsequent Trading Months and to the extent that the obligation will not apply under the Post-Amended Rules.

1.26.9. From the Rule Change Commencement Day, notwithstanding that the Post-Amended Rules apply:

- (a) each Rule Participant must perform all obligations imposed on that Rule Participant under the Pre-Amended Rules, arising in relation to each Trading Month up to but excluding the Rule Change Commencement Month, that, if the Pre-Amended Rules were in force, the Rule Participant would have been required to perform under the Pre-Amended Rules; and

(b) if the Post-Amended Rules require recalculation of the Individual Reserve Capacity Requirements for a Trading Month prior to the Rule Change Commencement Month, then the Post-Amended Rules do not apply to the extent that it would recalculate the Individual Reserve Capacity Requirements for that Trading Month.

1.26.10. From the Rule Change Commencement Day, notwithstanding that the Post-Amended Rules apply, each Rule Participant may perform any of the discretionary actions that the Rule Participant is permitted to perform under the Pre-Amended Rules, in relation to each Trading Month up to but excluding the Rule Change Commencement Month, that, if the Pre-Amended Rules were in force, the Rule Participant would have been permitted to perform under the Pre-Amended Rules.

...

2.31.13. AEMO may only reject an application if:

...

- (j) in the case of an application to register a Facility, the relevant Metering Data Agent informs AEMO that the facility is not registered in its Meter Registry or that the Meter Registry information is not consistent with the information in the application to register the facility;~~or~~
- (k) in the case of an application to de-register a Facility, the Market Participant holds Capacity Credits for the Facility; ~~or~~
- (l) in the case of an application to transfer a Facility, the transfer of the Facility would result in the number of Capacity Credits allocated for a Trading Month by the Market Generator transferring the Facility exceeding the number of Capacity Credits held for that Trading Month by the Market Generator that are able to be traded bilaterally under the Market Rules.

...

2.33.5. The Facility transfer form prescribed by AEMO must require that an applicant for transfer of a Facility provide the following:

...

- (f) evidence to the satisfaction of AEMO that the party making the application has assumed the Reserve Capacity Obligations associated with the Facility, and agrees to any ~~Short Term~~ Special Price Arrangements associated with the Facility;

...

...

4.1.23. Each Market Customer must provide to AEMO the information described in clause 4.28.8 by:

- (a) in the case of the first Reserve Capacity Cycle, 5:00 PM on the Business Day being 15 Business Days prior to the day on which the Initial Time occurs; and
- (b) in the case of a subsequent Reserve Capacity Cycle, 5:00 PM on the last Business Day falling on or before 20 August of Year 3 of that cycle.

4.1.23A. For each Hot Season, AEMO must determine and publish the 12 Peak SWIS Trading Intervals within five Business Days after the Interval Meter Deadline for the last Trading Month in the relevant Hot Season. For the avoidance of doubt, AEMO must not revise the 12 Peak SWIS Trading Intervals after their publication.

4.1.23B. For each Trading Month, AEMO must determine and publish the 4 Peak SWIS Trading Intervals within five Business Days after the Interval Meter Deadline for the relevant Trading Month. For the avoidance of doubt, AEMO must not revise the 4 Peak SWIS Trading Intervals after their publication.

- 4.1.23C. For each Trading Month, AEMO must determine and publish the Indicative Individual Reserve Capacity Requirement for each Market Customer in accordance with clause 4.28.6 by 5:00 PM on the Business Day that is 10 Business Days prior to the start of the relevant Trading Month.
- 4.1.24. For each Trading Month, AEMO must determine and publish the initial Individual Reserve Capacity Requirement for each Market Customer in accordance with clause 4.28.7 by 5:00 PM on the Business Day that is five Business Days prior to the Interval Meter Deadline for the relevant Trading Month.:
- (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 last Business Day falling on or before 10 September of Year 3 of that cycle.
- 4.1.25. [Blank]The initial Individual Reserve Capacity Requirement for a Market Customer is to apply from:
- (a) in the case of the first Reserve Capacity Cycle, the earlier of Energy Market Commencement and the start of the Trading Day commencing on 1 October 2007 (“Initial Time”); and
 - (b) in the case of a subsequent Reserve Capacity Cycle, the start of the Trading Day commencing on 1 October of Year 3 of that cycle.
- ...
- 4.1.28. [Blank]Every month between 1 October 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 of the Trading Month from which the updated Individual Reserve Capacity Requirements will apply.
- ...

4.14. Market Participant Auction and Bilateral Trade Declaration

- 4.14.1. Subject to clause 4.14.3, each Market Participant holding Certified Reserve Capacity for the current Reserve Capacity Cycle must, by the date and time specified in clause 4.1.14 provide the following information to AEMO for each Facility (expressed in MW to a precision of 0.001 MW):
- (a) the total amount of Reserve Capacity the Market Participant intends to make available in a Reserve Capacity Auction if held for the current

Reserve Capacity Cycle, ~~where the amount to be made available is not to include Reserve Capacity covered by a pre-existing Special Price Arrangement;~~

- (b) ~~the total amount of Reserve Capacity covered by a pre-existing Special Price Arrangement that the Market Participant intends will not be traded bilaterally in accordance with clause 4.14.1(c) or acquired by AEMO under clause 4.14.1(ca); [Blank]~~
- (c) the total amount of Reserve Capacity the Market Participant intends will be traded bilaterally;
- (ca) for DSM Capacity Credits only, the total amount of Reserve Capacity the Market Participant intends to supply to AEMO under clause 4.28.2(aA); and
- (d) the total amount of Reserve Capacity that the Market Participant has decided will not now be made available to the market, ~~where this amount cannot include Reserve Capacity covered by a pre-existing Special Price Arrangement;~~

where the sum of the values for clause 4.14.1(a), ~~(b)~~, (c), (ca) and (d) must equal the Certified Reserve Capacity of the Facility for the Reserve Capacity Cycle.

4.14.1A. A Market Participant holding Certified Reserve Capacity associated with a Demand Side Programme must not nominate any of that Certified Reserve Capacity under clause 4.14.1(a), ~~(b)~~ or (c).

...

4.14.5. For the purpose of clause 4.14.4, Synergy's peak load is calculated by doubling the average of Synergy's supply quantities (expressed in MWh) specified in the Bilateral Submissions that applied during the 12 ~~peak~~ Peak SWIS Trading Intervals, ~~as specified in Appendix 5, of published under clause 4.1.23A for the~~ previous Hot Season.

...

Reserve Capacity Auctions

4.15. Confirmation or Cancellation of Reserve Capacity Auctions

4.15.1. If the information provided under ~~clauses sections~~ 4.14 and 4.28C indicates that no Certified Reserve Capacity is to be made available in the Reserve Capacity Auction for a Reserve Capacity Cycle, or, based on the information received under ~~clause section~~ 4.14, AEMO considers that the Reserve Capacity Requirement for the Reserve Capacity Cycle will be met without an auction, then, by the date and time specified in clause 4.1.16, AEMO must publish a notice specifying for that Reserve Capacity Cycle:

- (a) that the Reserve Capacity Auction has been cancelled;
- (b) the Reserve Capacity Requirement;

- (c) the total amount of Certified Reserve Capacity;
- (cA) the Capacity Credits assigned, by Facility, under ~~clause section~~ 4.28C; and
- (d) the total amount of Certified Reserve Capacity that would have been made available in the Reserve Capacity Auction had one been held; ~~and~~
- ~~(e) the total amount of Certified Reserve Capacity covered by pre-existing Special Price Arrangements;~~

...

4.20.5B. If a Market Participant did not have a Reserve Capacity Offer scheduled, then the quantity of Capacity Credits assigned to each of that Market Participant's Facilities is determined as follows:

- (a) if the Facility is subject to a Network Control Service Contract – the same quantity as the quantity of Certified Reserve Capacity assigned to that Facility under clause 4.9.9(a); and
- (b) ~~if~~ if the Market Participant specified a non-zero amount for the Facility under clauses 4.14.1(c) or 4.14.1(ca) then the quantity of Capacity Credits is the ~~sum of:~~ quantity specified by AEMO for the Facility under clause 4.14.9.
 - ~~1. the quantity specified by the Market Participant for that Facility under clause 4.14.1(b); and~~
 - ~~2. the quantity specified by AEMO for the Facility under clause 4.14.9.~~

...

~~Special Price Arrangements~~

~~4.21. Short Term Special Price Arrangements~~

~~4.21.1.~~

- (a) AEMO is to grant ~~Short Term~~ Special Price Arrangements to a Market Participant in respect of any Capacity Credits acquired by AEMO as a result of a Reserve Capacity Auction where the offer price in the Reserve Capacity Offer for the Certified Reserve Capacity relating to those Capacity Credits exceeded the Reserve Capacity Auction Price.
- (b) The Special Reserve Capacity Price for Capacity Credits covered by the ~~Short Term~~ Special Price Arrangement is to equal the offer price in the Reserve Capacity Offer for the Certified Reserve Capacity relating to those Capacity Credits.
- (c) The level of coverage of the ~~Short Term~~ Special Price Arrangement is to equal the quantity of Capacity Credits associated with a Reserve Capacity Offer to which clause 4.21.1(a) relates (where if AEMO reduces the Capacity Credits associated with this Facility in any Trading Month then the average of the number of Capacity Credits of this Facility on each Trading Day during that Trading Month is to apply).

- (d) The term of a ~~Short Term~~ Special Price Arrangement is the period that the Reserve Capacity Obligations in respect of the Capacity Credits apply as specified in clause 4.1.26 and clause 4.1.30 for the Reserve Capacity Cycle relating to the Reserve Capacity Auction.

...

4.25.4C. Upon receiving an application under clause 4.25.4A, AEMO, ~~at its sole discretion,~~ must, subject to clause 4.25.4CA:

- (a) assess the application and any supporting documentation;
- (b) within 10 Business Days of receiving the application inform the Market Participant of its decision whether to reduce the Capacity Credits and the reasons for its decision; and
- (c) if applicable and in AEMO's sole discretion, reduce the amount of Capacity Credits held by the Market Participant in respect of the Facility to which the application relates.

4.25.4CA. AEMO must not approve an application received under clause 4.25.4A if the reduction of Capacity Credits would result in the number of Capacity Credits allocated by the relevant Market Generator in Capacity Credit Allocations for a Trading Month exceeding the number of Capacity Credits held for that Trading Month by the Market Generator that are able to be traded bilaterally under the Market Rules.

...

4.26.2CA. The Relevant Demand of a Demand Side Programme for a Trading Day d in a Capacity Year is the lesser ~~of: of—~~

- (a) a value determined for the Demand Side Programme using the methodology set out in Appendix 10; ~~or~~ and
- (b) the sum of Individual Reserve Capacity Requirement Contributions of the Associated Loads of the Demand Side Programme for the Trading Month in which Trading Day d falls.

...

4.28.1. AEMO must separate the total costs of Capacity Credits acquired by it for a Trading Month, including Capacity Credits covered by Special Price Arrangements, into the following two ~~sets: sets—~~

- (a) the cost of acquiring enough Capacity Credits to ensure, to the extent possible given the number of Capacity Credits AEMO has acquired, that the lesser ~~of: of—~~
 - i. the Reserve Capacity Requirement applicable to that Trading Month; and
 - ii. total Capacity Credits assigned to Facilities minus the total DSM Capacity Credits,

is just covered after allowing for Capacity Credits traded bilaterally (as defined in clause 4.14.2 and subject to clause 4.28.2(b)) in that Trading Month; and

- (b) the cost of other Capacity Credits acquired but not allocated to the set referred to in clause 4.28.1(a),

determined on the basis that the Capacity Credits acquired by AEMO are allocated to the set referred to in clause 4.28.1(a) in order of decreasing cost per Capacity Credit, other than DSM Capacity Credits, until the capacity requirements referred to in clause 4.28.1(a) are met, with the remaining Capacity Credits acquired by AEMO being allocated to the set referred to in clause 4.28.1(b).

4.28.2. For the purposes of clause ~~4.28.1~~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 must be:
 - i. deemed to be Capacity Credits acquired by AEMO from the Market Customer; and
 - ii. not counted as Capacity Credits traded bilaterally;
- (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~~
 - (cB) the cost of a Capacity Credit deemed to be acquired by AEMO from a Market Customer under clause 4.28.2(b)(i) is the Monthly Reserve Capacity Price determined in accordance with clause 4.29.1; 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. 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.

- 4.28.4. For each Trading Month, AEMO must calculate a Shared Reserve Capacity Cost being the sum of—
- (a) the cost defined under clause 4.28.1(b);
 - (b) the net payments to be made by AEMO under Supplementary Capacity Contracts less any amount drawn under a Reserve Capacity Security by AEMO and distributed in accordance with clause 4.13.11A(a); and
 - (bA) the Tranche 2 DSM Dispatch Payments made for that Trading Month; less
 - (c) the Intermittent Load Refunds for that Trading Month; less
 - (d) any amount drawn under a Reserve Capacity Security by AEMO and distributed in accordance with clause 4.13.11A(b),

and AEMO must allocate this total cost to Market Customers in proportion to each Market Customer's Individual Reserve Capacity Requirement.

4.28.5. The Shared Reserve Capacity Cost may have a negative value.

4.28.6. ~~[Blank]~~ For each Trading Month, 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 is determined using the methodology described in Appendix 5.

4.28.7. For each Trading Month, AEMO must determine and publish an ~~initial~~ Individual Reserve Capacity Requirement for each Market Customer by the date and time specified in clause 4.1.24, where this Individual Reserve Capacity Requirement is determined using the methodology described in Appendix 5.:

~~(a) — is determined using the methodology described in Appendix 5 and clause 4.28.7A;~~

~~(aA) — is calculated using data that may be modified in accordance with clause 4.28.11A; and~~

~~(b) — applies from the date and time specified in clause 4.1.25.~~

~~4.28.7A. — AEMO must set the Intermittent Load Reserve Capacity Requirement to apply for the first Trading Month of the Capacity Year for each Intermittent Load for which a Market Customer provided AEMO with the information specified in clause 4.28.8(e) in accordance with Appendix 4A.~~

4.28.8. To assist AEMO in determining Indicative Individual Reserve Capacity Requirements in accordance with clause ~~4.28.7~~ 4.28.6 and ~~updating~~ Individual Reserve Capacity Requirements in accordance with clause ~~4.28.11~~ 4.28.7 for the Capacity Year starting on 1 October of Year 3 of a Reserve Capacity Cycle, Market Customers must, by the date and time specified in clause 4.1.23 ~~or no later than by 5:00 PM on the Business Day being twenty Business Days prior to the date and time specified in clause 4.1.28(b),~~ provide to AEMO:

- (a) ~~a list of the identity of all~~ interval meters associated with that Market Customer that the Market Customer wants AEMO to treat as Non-Temperature Dependent Loads;
- (b) details of any Demand Side Management measures that the Market Customer has implemented since the previous Hot Season, including the expected MW reduction in peak consumption resulting from those measures; and
- (c) nominations of capacity requirements for Intermittent Loads, expressed in MW, where the nominated quantity cannot exceed the greater of:
 - i. the maximum allowed level of Intermittent Load specified in Standing Data for that Intermittent Load at the time of providing the data; and
 - ii.- the maximum Contractual Maximum Demand expected to be associated with that Intermittent Load during the Capacity Year to which the nomination relates. -The Market Customer must provide evidence to AEMO of this Contractual Maximum Demand level unless AEMO has previously been provided with that evidence.

~~where for each Capacity Year a Market Customer may only provide AEMO with the information specified in this clause once with respect to each load.~~

4.28.8A. ~~Any A Market Customer with an~~ Intermittent Load that was not registered by the date and time specified in clause 4.1.23 must provide AEMO with the information described in clause 4.28.8(c) no later than 5 Business Days prior to the date and time specified in clause ~~4.1.28(b)~~ 4.1.23C where that date and time relates to the Trading Month in which the Intermittent Load will first commence operation.

4.28.8B. AEMO must accept a nomination for capacity for an Intermittent Load from a Market Customer if that nomination is made in accordance with clauses 4.28.8 or 4.28.8A provided that AEMO is satisfied of the accuracy of the data and evidence provided in accordance with clause 4.28.8(c)(ii).

4.28.8C. Subject to clause 4.28.11, a Market Customer may provide to AEMO:

- (a) the identity of additional interval meters (to those provided under clause 4.28.8) associated with the Market Customer that the Market Customer wants AEMO to treat as Non-Temperature Dependent Loads for the remainder of the relevant Capacity Year; and
- (b) details of any additional Demand Side Management measures (to those provided under clause 4.28.8) that the Market Customer has implemented since the previous Hot Season, including the expected MW reduction in peak consumption resulting from those measures,

by providing the relevant information to AEMO no later than 15 Business Days prior to the date and time specified in clause 4.1.23C for the first Trading Month for which the Market Customer wants AEMO to take the updated information into account.

- 4.28.9. AEMO must only accept the load measured by an interval meter ~~in the list provided~~ nominated in accordance with clauses 4.28.8(a) or 4.28.8C(a) as a Non-Temperature Dependent Load if that load satisfies the requirements of Appendix 5A.
- 4.28.10. AEMO must only take into account a MW reduction in peak consumption resulting from Demand Side Management measures specified in accordance with clauses 4.28.8(b) or 4.28.8C(b) in applying the methodology of Appendix 5 to the extent that AEMO is satisfied that the peak consumption associated with the applicable Market Participant would have been lowered by that number of MWs had those Demand Side Management measures been in place during the preceding Hot Season.
- ~~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 the date of publication of the updated Individual Reserve Capacity Requirement.~~
- 4.28.11. For each Capacity Year, a Market Customer may only provide AEMO with the relevant information specified in clauses 4.28.8, 4.28.8A and 4.28.8C once with respect to each load.
- ~~4.28.11A. For the purpose of the calculation of 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.~~
- 4.28.11A. When undertaking the Adjustment Process for a Trading Month under clause 9.16.3 in accordance with the settlement cycle timeline, AEMO must recalculate the Individual Reserve Capacity Requirements for the Trading Month, using the methodology described in Appendix 5, and must publish the recalculated Individual Reserve Capacity Requirements.
- 4.28.12. AEMO must document the process to be followed in ~~initially calculating, and subsequently revising,~~ Indicative Individual Reserve Capacity Requirements and

Individual Reserve Capacity Requirements in a Market Procedure, ~~and AEMO and Market Customers must follow that documented Market Procedure.~~

Intermittent Load Refunds

4.28A. Intermittent Load Refunds

4.28A.1. AEMO must determine for each Intermittent Load registered to Market Participant p the amount of the refund (“**Intermittent Load Refund**”) to be applied for each Trading Month m in respect of that Intermittent Load as the sum over all Trading Intervals t of Trading Day d in the Trading Month m of the product of:

- (a) the applicable value of Y for the Intermittent Load as determined in clause 4.26.1(b)(iii); and
- (b) [Blank]
- (c) the Capacity Shortfall for Trading Interval t of Trading Day d and Trading Month m which is the greater of zero and:
 - i. double the MWh of the Intermittent Load metered during that Trading Interval, where for the purpose of this calculation the metered amount should be defined at the meter rather than being Loss Factor adjusted so as to be measured at the Reference Node, less;
 - ii. if the generating system described in clause 2.30B.2(a) is undergoing a Planned Outage or a Consequential Outage, the quantity nominated for that Intermittent Load by its Market Customer in accordance with clauses 4.28.8(c) ~~or 4.28.8A~~; less
 - iii. 3% of the quantity nominated for that Intermittent Load by its Market Customer in accordance with clauses 4.28.8(c) ~~or 4.28.8A~~; less
 - iv. for Trading Intervals where the temperature data described in clause 4.28A.2 shows a temperature in excess of 41°C and the generating system described in clause 2.30B.2(a) is not undergoing a Planned Outage, Forced Outage or a Consequential Outage, the capacity reduction, if any, specified in accordance with clause 2.30B.3(b)(i).

...

4.28B.8. Any Capacity Credit issued by AEMO under this ~~clause section~~ 4.28B:

- (a) is, for the purpose of settlement, to be treated as if it were traded bilaterally in accordance with ~~clause section~~ 4.14 (as defined in clause 4.14.2); and
- (b) is not eligible to have a ~~Long Term Special Price Arrangement or Short Term~~ Special Price Arrangement associated with it.

...

4.28C.14. Capacity Credits issued by AEMO under this ~~clause section~~ 4.28C:

- (a) are not eligible to be used in a Reserve Capacity Auction; and
- (b) are not eligible to have ~~a Short Term~~ Special Price Arrangements associated with them.

...

4.29.3. AEMO must determine the following information in time for settlement of Trading Month m:

- (a) the Monthly Reserve Capacity Price applying during that Trading Month;
- (b) the Targeted Reserve Capacity Cost for that Trading Month as defined in clause 4.28.3;
- (c) the Shared Reserve Capacity Cost for that Trading Month as defined in clause 4.28.4;
- (d) subject to clause 4.29.4, for each Market Participant p and for Trading Month ~~m:m—~~
 - i. the quantity of Capacity Credits (including Capacity Credits from Facilities subject to Network Control Service Contracts) acquired by AEMO which are ~~not:net—~~
 - 1. DSM Capacity Credits; or
 - 2. covered by a Special Price Arrangement;
 - ii. ~~the quantity of Capacity Credits acquired by AEMO covered by a Special Price Arrangement;~~[Blank]
 - iii. the total quantity of Capacity Credits covered by Special Price Arrangements;
 - iv. the quantity of Capacity Credits (other than DSM Capacity Credits) traded bilaterally (as defined in clause 4.14.2) ~~that are not covered by Special Price Arrangements~~, including Capacity Credits from Facilities subject to Network Control Service Contracts to which clause 4.20.1(d)(iii) does apply;
 - ivA. the quantity of DSM Capacity Credits;
 - v. the Individual Reserve Capacity Requirement for each Market Customer for that Trading Month;
 - vi. the total Capacity Cost Refund to be paid by the Market Participant to AEMO for all Trading Intervals in Trading Month m;
 - vii. the total Participant Capacity Rebate to be paid to the Market Participant by AEMO for all Trading Intervals in Trading Month m; and
 - viii. the Tranche 2 DSM Dispatch Payments to be made to the Market Participant;

- (dA) for each Market Participant, the Intermittent Load Refund to be paid by the Market Participant to AEMO for each of its Intermittent Loads; and
- (e) for each Supplementary Capacity Contract:
 - i. the net payment to be made by AEMO under that contract for the Trading Month;
 - ii. to whom the payment is to be made; and
 - iii. how the payment is to be made if the party identified in [clause 4.29.3 \(e\)\(ii\)](#) is not a Market Participant.

...

9.3.6. ~~Market Participants may provide the Capacity Credit Allocation Submissions described in clause 9.4. to AEMO. [\[Blank\]](#)~~

...

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. A Market Generator may submit one or more Capacity Credit Allocation Submissions for a full Trading Month to AEMO between the dates and times published by AEMO in accordance with clause 9.16.2(b).

9.4.2. A Capacity Credit Allocation Submission must not include DSM Capacity Credits.

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

9.4.4. Within one Business Day following receipt of a Capacity Credit Allocation Submission, AEMO must:

- (a) decide whether to approve or reject the Capacity Credit Allocation Submission;
- (b) notify the Market Generator of the decision;
- (c) if the decision is to reject the Capacity Credit Allocation Submission, notify the Market Generator of the reason for the rejection; and
- (d) if the decision is to approve the Capacity Credit Allocation Submission, notify the Market Customer specified as the receiver of the Capacity Credits of the details of the Capacity Credit Allocation Submission.

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

- (a) the sum of the Capacity Credits:
 - i. proposed to be allocated in the Capacity Credit Allocation Submission;
 - ii. proposed to be allocated in any other Capacity Credit Allocation Submission for the Market Generator for the relevant Trading Month that is approved by AEMO but not yet accepted by the relevant Market Customer (excluding any Capacity Credit Allocation Submissions withdrawn under clause 9.4.12); and
 - iii. in any approved Capacity Credit Allocation for the Market Generator for the relevant Trading Month (excluding any Capacity Credit Allocations reversed under clause 9.4.14 and accounting for any reductions under clauses 9.4.16 or 9.4.17),

exceeds the number of Capacity Credits that are able to be traded bilaterally by the Market Generator under the Market Rules for the Trading Month; or

- (b) AEMO reasonably considers that the Trading Margin of the Market Generator specified as the provider of the Capacity Credits is likely to be negative after allocating the Capacity Credits as outlined in the Capacity Credit Allocation Submission.
- 9.4.6. AEMO must approve a Capacity Credit Allocation Submission if the Capacity Credit Allocation Submission is not rejected in accordance with clause 9.4.5.
- 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 allocation of Capacity Credits specified in the Capacity Credit Allocation Submission by submitting a Capacity Credit Allocation Acceptance by the date and time published by AEMO in accordance with clause 9.16.2(b)(ii).
- 9.4.8. A Capacity Credit Allocation Acceptance must be submitted in the form specified by AEMO.
- 9.4.9. Within one Business Day following receipt of a Capacity Credit Allocation Acceptance, AEMO must:
- (a) decide whether to approve or reject the Capacity Credit Allocation Acceptance;
 - (b) notify the submitting Market Customer and the Market Generator that submitted the corresponding Capacity Credit Allocation Submission of the decision;
 - (c) if the decision is to reject the Capacity Credit Allocation Acceptance under clause 9.4.10(a), notify the submitting Market Customer of the reason for the rejection; and
 - (c) if the decision is to reject the Capacity Credit Allocation Acceptance under clauses 9.4.10(b) or 9.4.10(c), notify the Market Generator that submitted the corresponding Capacity Credit Allocation Submission of the reason for the rejection.
- 9.4.10. AEMO must reject a Capacity Credit Allocation Acceptance if:
- (a) the Capacity Credit Allocation Submission has been withdrawn under clause 9.4.12;
 - (b) the sum of the Capacity Credits:
 - i. proposed to be allocated in the relevant Capacity Credit Allocation Submission; and
 - ii. in any approved Capacity Credit Allocation for the Market Generator for the relevant Trading Month (excluding any Capacity Credit Allocations reversed under clause 9.4.14 and accounting for any reductions under clauses 9.4.16 or 9.4.17),

exceeds the number of Capacity Credits that are able to be traded bilaterally by the Market Generator under the Market Rules for the Trading Month; or

(c) 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. AEMO must approve a Capacity Credit Allocation Acceptance if the Capacity Credit Allocation Acceptance is not rejected in accordance with clause 9.4.10.

9.4.12. A Market Generator may withdraw a Capacity Credit Allocation Submission at any time before AEMO has approved a corresponding Capacity Credit Allocation Acceptance from the Market Customer specified as the receiver of the Capacity Credits in accordance with clause 9.4.11.

9.4.13. Within one Business Day after a Market Generator has withdrawn a Capacity Credit Allocation Submission under clause 9.4.12, AEMO must notify the Market Customer specified as the receiver of the Capacity Credits that the Capacity Credit Allocation Submission has been withdrawn.

9.4.14. AEMO must reverse a Capacity Credit Allocation if both of the following apply:

(a) AEMO receives a request from the Market Generator and Market Customer involved before the date and time published by AEMO in accordance with clause 9.16.2(b)(ii) for the relevant Trading Month; 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.

9.4.15. If the termination of a Capacity Credit results in the number of Capacity Credits allocated by a Market Generator in Capacity Credit Allocations for a Trading Month exceeding the number of Capacity Credits held for that Trading Month by the Market Generator that are allowed to be traded bilaterally under the Market Rules, then AEMO must notify the Market Generator within one Business Day after the termination.

9.4.16. A Market Generator may, within two Business Days following receipt of a notice provided under clause 9.4.15, amend one or more of its approved Capacity Credit Allocations for the Trading Month to reduce the total number of Capacity Credits allocated by the quantity needed to eliminate the excess identified by AEMO under clause 9.4.15.

9.4.17. If a Market Participant does not make a reduction under clause 9.4.16, AEMO must, within one Business Day after the deadline specified in clause 9.4.16:

(a) amend one or more of the Capacity Credit Allocations for the Market Generator for the Trading Month to eliminate the excess identified by

AEMO under clause 9.4.15 in accordance with the Market Procedure specified in clause 9.4.18; and

(b) for each amended Capacity Credit Allocation, notify the Market Generator and the relevant Market Customer of the details of the amendment.

9.4.18. AEMO must develop a Market Procedure dealing with:

(a) Capacity Credit Allocations; and

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

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 ParticipantGenerator, which must be the holder of Capacity Credits;

(b) the identity of eachthe Market ParticipantCustomer to which the Capacity Credits are to be allocated for settlement purposes, which may includebe the submitting Market Participant;

(c) the number of Capacity Credits to be allocated for settlement purposes from the Market Generator 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 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 the Market Participant for the Trading Month; and

ii. the set consisting of Capacity Credits held by the submitting Market Participant 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 the Market Participant 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 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 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~~

~~(b) — the total number of Capacity Credits allocated in accordance with clause 9.5.1(c)(ii) for a Trading Month does not exceed 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) for Market Participant p for Trading Month m is—

$$\begin{aligned} \text{Capacity_Provider_Payment}(p,m) = & \text{Participant_Capacity_Rebate}(p,m) \\ & + \text{Non_Allocated_Gen_Capacity_Payments}(p,m) \\ & + \text{Non_Allocated_SPA_Payments}(p,m) \\ & - \text{Intermittent_Load_Refund}(p,m) \\ & + \text{Supplementary_Capacity_Payment}(p,m) \\ & + \text{DSM_Capacity_Payments}(p,m) \\ & + \text{Tranche_2_DSM_Dispatch_Payments}(p,m) \\ & - \text{Capacity_Cost_Refund}(p,m) \\ & + \text{Over_Allocation_Payment}(p,m) \end{aligned}$$

~~where:Where—~~

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);

$$\begin{aligned} \text{Non_Allocated_Gen_Capacity_Payments}(p,m) = \\ \text{Monthly_Reserve_Capacity_Price}(m) \times (\text{CC_NSPA}(p,m) - \\ \text{CC_ANSPA}(p,m)) \end{aligned}$$

$$\begin{aligned} \text{Non_Allocated_SPA_Payments}(p,m) = \\ \text{Sum}(a \in A, \text{Monthly_Special_Price}(p,m,a) \times \\ (\text{CC_SPA}(p,m,a) - \text{CC_ASPA}(p,m,a))) \end{aligned}$$

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);

$$\begin{aligned} \text{DSM_Capacity_Payments}(p,m) = \\ \text{DSM_Capacity_Credits}(p,m) \times \text{Monthly_DSM_Reserve_Capacity_Price}(m) \end{aligned}$$

Tranche_2_DSM_Dispatch_Payments(p,m) are the Tranche 2 DSM Dispatch Payments for Market Participant p for Trading 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);

$$\text{Over Allocation Payment}(p,m) = \frac{\max(0, \text{Allocated Capacity Credits}(p,m) - \text{IRCR}(p,m)) \times \text{Monthly Reserve Capacity Price}(m)}{}$$

Monthly_Reserve_Capacity_Price(m) is the Monthly Reserve Capacity Price which applies for Trading Month m defined in accordance with clause 4.29.1;

CC_NSIPA(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;

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;

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;

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 Month m;

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_Credits(p,m) is the number of DSM Capacity Credits held by Market Participant p in Trading Month m, as determined under clause 4.29.3(d)(ivA); ~~and~~

Monthly_DSM_Reserve_Capacity_Price(m) is the DSM Reserve Capacity Price which applies for Trading Month m divided by 12;

Allocated Capacity Credits(p,m) is the number of Capacity Credits allocated to Market Participant p in Trading Month m in accordance with sections 9.4 and 9.5;
and

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

9.7.1B. For the purposes of clause 9.7.1, Capacity_Purchaser_Payment(p,m) for Market Participant p for Trading Month m is—

$$\text{Capacity_Purchaser_Payment}(p,m) = \text{Targeted_Reserve_Capacity_Cost}(p,m) + \text{Shared_Reserve_Capacity_Cost}(p,m) - \text{LF_Capacity_Cost}(p,m)$$

~~where:~~ Where—

$$\text{Targeted_Reserve_Capacity_Cost}(p,m) = \text{Targeted_Reserve_Capacity_Cost}(m) \times \text{Shortfall_Share}(p,m)$$

$$\text{Shared_Reserve_Capacity_Cost}(p,m) = \text{Shared_Reserve_Capacity_Cost}(m) \times \text{Capacity_Share}(p,m)$$

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

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);

$$\text{Shortfall_Share}(p,m) = \frac{(\max(0, \text{IRCR}(p,m) - \text{Allocated_Capacity_Credits}(p,m)))}{\text{Sum}(p \in P, (\max(0, \text{IRCR}(p,m) - \text{Allocated_Capacity_Credits}(p,m)))}$$

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

$$\text{Capacity_Share}(p,m) = \text{IRCR}(p,m) / \text{Sum}(p \in P, \text{IRCR}(p,m))$$

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;

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

Allocated_Capacity_Credits(p,m) ~~equals the~~ is the number of Capacity Credits allocated to Market Participant p in Trading Month m in accordance with sections 9.4 and 9.5.

...

- 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 and 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 relevant Trading Month~~Non-STEM Settlement Statement Date~~; and
- ii. the latest date and time at which Capacity Credit Allocation Submissions and Capacity Credit Allocation Acceptances for a Trading Month can be ~~made to AEMO~~ submitted, where this is the Interval Meter Deadline as specified in clause 9.16.2(a) for the relevant Trading Month~~to be not less than five Business Days prior to the Non-STEM Settlement Statement Date~~;
- 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).~~

...

9.18.3. A Non-STEM Settlement Statement must contain the following information:

- (a) details of the Trading Days covered by the Non-STEM Settlement Statement;

...

- (cA) details of any Capacity Credits allocated to the Market Participant ~~in a Capacity Credit Allocation Submission made by~~ from another Market Participant in accordance with ~~clauses~~sections 9.4 and 9.5;
- (cB) details of any Capacity Credits allocated to another Market Participant ~~in a Capacity Credit Allocation Submission made by~~ from the Market Participant in accordance with ~~clauses~~sections 9.4 and 9.5;

...

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 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;
 - ix. the following ratios calculated by AEMO when it determines the Indicative Individual Reserve Capacity Requirements or the Individual Reserve Capacity Requirements for a Trading Month, or recalculates the Individual Reserve Capacity Requirements for a Trading Month as required by clause 4.28.11A: annually calculated and monthly adjusted ratios:
 1. NTDL_Ratio as calculated in accordance with Appendix 5, Step 8 Step 8A of Appendix 5;

2. TDL_Ratio as calculated in accordance with Appendix 5, Step 8 Step 8C of Appendix 5; and
3. Total_Ratio as calculated in accordance with Appendix 5, Step 40 Step 10 of Appendix 5; and

...

...

11 Glossary

12 Peak SWIS Trading Intervals: Means, for a Hot Season, the 3 Trading Intervals with the highest Total Sent Out Generation on each of the 4 Trading Days with the highest maximum demand in that Hot Season, as published by AEMO in accordance with clause 4.1.23A, where the maximum demand for a Trading Day is the highest Total Sent Out Generation for any Trading Interval in that Trading Day.

4 Peak SWIS Trading Intervals: Means, for a Trading Month, the 4 Trading Intervals in the relevant Trading Month with the highest Total Sent Out Generation, as published by AEMO in accordance with clause 4.1.23B.

...

Capacity Credit Allocation: ~~The number of Capacity Credits allocated to a Market Participant for settlement purposes through the allocation process in clauses 9.4 and 9.5.~~ The allocation of a number of Capacity Credits from a Market Generator to a Market Customer for a Trading Month for settlement purposes through the allocation process in sections 9.4 and 9.5.

Capacity Credit Allocation Acceptance: A submission from a Market Customer to AEMO made in accordance with clauses 9.4.7 and 9.4.8 to accept a Capacity Credit Allocation Submission.

Capacity Credit Allocation Submission: A submission from a Market ~~Participant~~ Generator to AEMO made in accordance with clauses 9.4.1, 9.4.2 and 9.4.3 to allocate Capacity Credits to a single Market Customer.

...

Indicative Individual Reserve Capacity Requirement: Means the estimate of a Market Customer's Individual Reserve Capacity Requirement determined and published by AEMO in accordance with clause 4.28.6.

...

Individual Intermittent Load Reserve Capacity Requirement: Means the Individual Reserve Capacity Requirement for an Intermittent Load for a Trading Month determined in accordance with Appendix 4A.

Individual Reserve Capacity Requirement: The MW quantity determined by AEMO in respect of a Market Customer, in accordance with clause 4.28.7 and, if applicable, as revised in accordance with clause 4.28.11A.

Individual Reserve Capacity Requirement Contribution: Means the contribution of an Associated Load to a Market Customer’s Indicative Individual Reserve Capacity Requirement determined in accordance with Step 11 of Appendix 5.

Initial Time: ~~Has the meaning given in clause 4.1.25~~ Is the earlier of the Energy Market Commencement and the start of the Trading Day commencing on 1 October 2007.

...

~~**Short Term Special Price Arrangement:** A Special Price Arrangement that applies for not more than one Reserve Capacity Cycle.~~

...

Special Price Arrangement: An arrangement under section 4.21 whereby a Market Participant can secure a price for Reserve Capacity that may differ from the Reserve Capacity Price for a Reserve Capacity Cycle.

...

Appendix 1: Standing Data

...

- (k) for each Registered Facility:
 - i. Reserve Capacity information including:
 - ...
 - 7. for each ~~Short Term~~ Special Price Arrangement associated with the facility, the number of Capacity Credits covered, the Special Reserve Capacity Price to be applied, and the expiration date and time of the Special Price Arrangement.
 - ii. Network Control Service information including:
 - ...

Appendix 4A: Individual Intermittent Load ~~Individual~~ Reserve Capacity Requirements

This Appendix describes how ~~Individual Reserve Capacity Requirements are derived for Intermittent Loads~~ the Individual Intermittent Load Reserve Capacity Requirement for Intermittent Load k for Trading Month n is determined.

Define:

- MaxL(k) is the nominated load level for Intermittent Load k to apply for Trading Month n as specified in clauses 4.28.8(c) or 4.28.8A;
- RM is the reserve margin for the Reserve Capacity Cycle defined as negative one plus the ratio of the Reserve Capacity Requirement for the relevant Capacity Year as described in clause 4.6.1 and the expected peak demand for the relevant Capacity Year as described in clause 4.6.2;

Calculate Req(k), which equals MaxL(k) multiplied by RM.

When setting the Individual Intermittent Load Reserve Capacity Requirements ~~in accordance with clause 4.28.7A for an Intermittent Load k for a Trading Month n in accordance with Appendix 5:~~

- ~~If, at the time AEMO determines the Indicative Individual Reserve Capacity Requirements for Trading Month n,~~ Intermittent Load k is registered and operating or AEMO reasonably expects it to be registered and operating during ~~the first Trading Month of the Capacity Year Trading Month n~~ (based on information provided to AEMO in accordance with clauses 4.28.8(c) or 4.28.8A), then set the Individual Intermittent Load Reserve Capacity Requirement for Intermittent Load k equal to Req(k).
- ~~If, at the time AEMO determines the Indicative Individual Reserve Capacity Requirements for Trading Month n,~~ AEMO reasonably expects Intermittent Load k not to be registered or operating during ~~the first Trading Month of the Capacity Year Trading Month n~~ (based on information provided to AEMO in accordance with clause 4.28.8(c) or 4.28.8A), then set the Individual Intermittent Load Reserve Capacity Requirement for Intermittent Load k equal to zero.

~~When revising Intermittent Load Reserve Capacity Requirements in accordance with clause 4.28.11, and after allowing for additional nominations by Intermittent Loads that have commenced operation during the Capacity Year:~~

- ~~If Intermittent Load k is registered and operating or AEMO reasonably expects it to be registered and operating during the next Trading Month to commence during the Capacity Year (based on information provided to AEMO in accordance with clause 4.28.8A), then set the Intermittent Load Reserve Capacity Requirement for Intermittent Load k equal to Req(k).~~
- ~~If AEMO reasonably expects Intermittent Load k not to be registered or operating during the next Trading Month to commence during the Capacity Year (based on information provided to AEMO in accordance with clause 4.28.8A), then set the Intermittent Load Reserve Capacity Requirement for Intermittent Load k equal to zero.~~

Appendix 5: Individual Reserve Capacity Requirements

This Appendix presents the method ~~for annually setting and monthly adjusting Individual Reserve Capacity Requirements~~ that must be used by AEMO to determine, for a Trading Month n:

- Individual Reserve Capacity Requirement Contributions as required for the determination of Relevant Demands under clause 4.26.2CA;
- Indicative Individual Reserve Capacity Requirements as required under clause 4.28.6;
- Individual Reserve Capacity Requirements as required under clause 4.28.7; and
- revised Individual Reserve Capacity Requirements as required under clause 4.28.11A.

AEMO must perform Steps 1 to 10A to determine the Indicative Individual Reserve Capacity Requirements, Individual Reserve Capacity Requirements or revised Individual Reserve Capacity Requirements for Trading Month n.

AEMO must perform Step 11 as required to determine the Individual Reserve Capacity Requirement Contribution of an individual metered Associated Load for Trading Month n, using as input the relevant values calculated by AEMO when it determined the Indicative Individual Reserve Capacity Requirements for Trading Month n.

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 to be used in the calculations are the 12 Peak SWIS Trading Intervals determined and published by AEMO under clause 4.1.23A for the Hot Season preceding the start of the Capacity Year in which Trading Month n falls (the “preceding Hot Season”).
- The 4 Peak SWIS Trading Intervals for a Trading Month to be used in the calculations are the 4 Peak SWIS Trading Intervals determined and published by AEMO under clause 4.1.23B for that Trading Month.
- When calculating the Indicative Individual Reserve Capacity Requirements it is assumed that all meters registered to a Market Customer on the day of calculation will remain registered to that Market Customer for the entirety of Trading Month n.

~~STEP 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. Calculate:~~

$$\text{RR} = \min(\text{RCR}, \text{CC} - \text{DSM_CC})$$

$$\text{FL} = \text{FL_RCR} \times \text{RR} / \text{RCR}$$

where:

RCR is the Reserve Capacity Requirement for the relevant Reserve Capacity Cycle

CC is the total number of Capacity Credits assigned for Trading Month n at the time of the calculation

DSM_CC is the total number of DSM Capacity Credits assigned for Trading Month n at the time of the calculation

FL_RCR is the peak demand associated with the Reserve Capacity Requirement for the relevant Reserve Capacity Cycle as specified in clause 4.6.2

~~STEP Step 2: For each meter, u, measuring Non-Temperature Dependent Load that was registered with AEMO for all of the 12 Peak SWIS Trading Intervals determine $\text{NTDL}(u)$ and $d(u,i)$, where:~~

NTDL(u) is the contribution to the system peak load of meter u during the preceding Hot Season where this contribution is double the median value of the metered consumption during the 12 ~~peak~~Peak SWIS Trading Intervals

~~STEP~~Step 3: For each meter, v, measuring Temperature Dependent Load that was registered with AEMO for all of the 12 Peak SWIS Trading Intervals determine TDL(v) ~~and~~ $d(v,i)$, where:

TDL(v) is the contribution to the system peak load of meter v during the preceding Hot Season where this contribution is double the median value of the metered consumption during the 12 ~~peak~~Peak SWIS Trading Intervals

~~STEP~~Step 4: For each Intermittent Load meter w set its Individual Intermittent Load Reserve Capacity Requirement, IILRCR(w), to equal the amount defined in accordance with ~~clause 4.28.7A~~ Appendix 4A.

~~STEP~~Step 5: ~~When determining the Individual Reserve Capacity Requirements for Trading Month n-1 identify~~ meters that were not registered with AEMO during one or more of the 12 ~~peak~~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~~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~~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~~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~~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 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 clauses 4.28.8(c) or 4.28.8A, 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 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:

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

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 $n-3$.~~

STEP 8: For each Market Customer, i , calculate:

~~$$NTDLRCR(i) = \text{Sum}(u, NTDL(u) \times d(u,i)) \times NTDL_Ratio$$~~

~~$$TDLRCR(i) = (\text{Sum}(v, MTDL(v) \times d(v,i)) - DSM(i)) \times TDL_Ratio$$~~

~~$$ILRCR(i) = \text{Sum}(w, ILRCR(w) \times d(w,i))$$~~

~~$$NRR = RR - \text{Sum}(i, ILRCR(i))$$~~

~~where~~

$$\text{NTDL_Ratio} = \text{NRR} / \text{FL}$$

$$\text{TDL_Ratio} = (\text{NRR} - \text{Sum}(j, \text{NTDLRCR}(j))) / (\text{Sum}(j, \text{Sum}(v, \text{MTDL}(v) \times d(v,j)) - \text{DSM}(j)))$$

j indicates Market Customers

$\text{ILRCR}(i)$ is the Intermittent Load Reserve Capacity Requirement for Market Customer i .

$\text{MTDL}(v) = \text{TDL}(v)$ for all v except v^* and $\text{MTDL}(v) = \text{TDL}(v^*)$ for $v=v^*$

RR is the Reserve Capacity Requirement (potentially modified in accordance with clause 4.28.11A).

FL is the peak demand associated with that Reserve Capacity Requirement as specified in clause 4.6.2 (potentially modified in accordance with clause 4.28.11A).

$\text{DSM}(i)$ is the MW quantity of additional Demand Side Management demonstrated and agreed by AEMO to be available by the next Hot Season

Step 8: For each Market Customer i , calculate:

$$\text{ILRCR}(i) = \text{Sum}(w, \text{ILRCR}(w) \times d(w,i))$$

Step 8A: Calculate:

$$\text{NRR} = \text{RR} - \text{Sum}(i, \text{ILRCR}(i))$$

$$\text{NTDL_Ratio} = \text{NRR} / \text{FL}$$

Step 8B: For each Market Customer i , calculate:

$$\text{NTDLRCR}(i) = \text{Sum}(u, \text{NTDL}(u) \times d(u,i)) \times \text{NTDL_Ratio}$$

Step 8C: Calculate:

$$\text{TDL_Ratio} = (\text{NRR} - \text{Sum}(i, \text{NTDLRCR}(i))) / (\text{Sum}(i, \text{Sum}(v, \text{MTDL}(v) \times d(v,i)) - \text{DSM}(i)))$$

where

$\text{MTDL}(v) = \text{TDL}(v)$ for all v except v^* and

$\text{MTDL}(v) = \text{TDL}(v^*)$ for $v=v^*$

$\text{DSM}(i)$ is the MW quantity of additional Demand Side Management demonstrated and agreed by AEMO to be available by the next Hot Season

Step 8D: For each Market Customer i , calculate:

$$\text{TDLRCR}(i) = (\text{Sum}(v, \text{MTDL}(v) \times d(v,i)) - \text{DSM}(i)) \times \text{TDL_Ratio}$$

STEP Step 9: For each Market Customer, i , calculate

$$X(i) = \text{Sum}(i, \text{ILRCR}(i) + \text{NTDLRCR}(i) + \text{TDLRCR}(i)) + \text{Sum}(u, \text{NMNTCR}(u) \times d(u,i)) + \text{Sum}(v, \text{NMTDCR}(v) \times d(v,i))$$

~~STEP 10: The Individual Reserve Capacity Requirement of Market Customer i for Trading Month n of a Capacity Year equals $(X(i) \times \text{Total_Ratio})$ where—~~

$$\text{Total_Ratio} = \text{RR_Transitional}/Y$$

$$Y = \text{Sum}(i, X(i))$$

~~RR_Transitional is equal to the lesser of—~~

- ~~(a) — the Reserve Capacity Requirement; and~~
- ~~(b) — the sum of all Capacity Credits minus DSM Capacity Credits~~

Step 10: Calculate:

$$\text{Total_Ratio} = \text{RR} / \text{Sum}(i, X(i))$$

Step 10A: For each Market Customer i, set the Indicative Individual Reserve Capacity Requirement or Individual Reserve Capacity Requirement, as applicable, for Trading Month n to:

$$X(i) \times \text{Total_Ratio}$$

~~STEP~~Step 11: The Individual Reserve Capacity Requirement Contribution of an individual metered Associated Load for Trading Month n of a Capacity Year is determined as follows:~~follows—~~

- (a) for meter u at an ~~existing~~ connection point measuring Non-Temperature Dependent Load that was registered with AEMO for all of the 12 Peak SWIS Trading Intervals equals $(\text{NTDL}(u) \times \text{NTDL_Ratio} \times \text{Total_Ratio})$;
- (b) for meter v at an ~~existing~~ connection point measuring Temperature Dependent Load that was registered with AEMO for all of the 12 Peak SWIS Trading Intervals equals $(\text{TDL}(v) \times \text{TDL_Ratio} \times \text{Total_Ratio})$;
- (c) for meter u at a new connection point identified in Step 5 measuring Non-Temperature Dependent Load equals $(\text{NMNTCR}(u) \times \text{Total_Ratio})$; and
- (d) for meter v at a new connection point identified in Step 5 measuring Temperature Dependent Load equals $(\text{NMTDCR}(v) \times \text{Total_Ratio})$.

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~~ nominated in accordance with clauses 4.28.8(a) or 4.28.8C(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 pPeak 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.~~ 4 Peak SWIS Trading Intervals determined and published by AEMO under clause 4.1.23B for that Trading Month.

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~~ nominated in accordance with clauses 4.28.8(a) or 4.28.8C(a) as a Non-Temperature Dependent Load:

Step 1:

- If, in accordance with clause 4.28.8(a), AEMO is provided by a Market Customer in Trading Month ~~{n-2}~~ with ~~a list that includes the identity of~~ an interval meter associated with that Market Customer that it wants AEMO to treat as a Non-Temperature Dependent Load from Trading Month {n}; and
- If the ~~list including identity of~~ the interval meter is provided by the date and time specified in clause 4.1.23; and
- If the load was treated as a Non-Temperature Dependent Load in Trading Month ~~{n-8},~~

then AEMO must accept the load as a Non-Temperature Dependent Load if:

- (a) the median value of the metered consumption for that load was in excess of 1.0 MWh, calculated over the set of Trading Intervals defined as the 4 pPeak SWIS Trading Intervals in each of the Trading Months starting from the start of Trading Month ~~n-11~~ to the end of Trading Month ~~n-3~~; and
- (b) the load did not deviate downwards from the median consumption in paragraph (a) by more than 10% for more than 10% of the time during the period from the start of Trading Month ~~{n-11}~~ to the end of Trading Month ~~{n-3}~~ except during Trading Intervals where:
 - i. the consumption was 0 MWh; or
 - ii. consumption was reduced at the request of System Management;or

- iii. evidence is provided by the Market Customer that the source of the consumption was operating at below capacity due to maintenance or a Saturday, Sunday or a public holiday throughout Western Australia.

Step 2:

- If, in accordance with clauses 4.28.8(a) or 4.28.8C(a), AEMO is provided by a Market Customer in Trading Month {n-2} with a list that includes the identity of an interval meter associated with that Market Customer that it wants AEMO to treat as a Non-Temperature Dependent Load from Trading Month {n}; and
- If the load is not treated as a Non-Temperature Dependent Load in Trading Month {n-1}; and
- If the load was not treated as a Non-Temperature Dependent Load for any of the Trading Months in the Capacity Year in which Trading Month {n} falls,

then AEMO must accept the load as a Non-Temperature Dependent Load for Trading Month {n} if:

- (a) the median value of the metered consumption values for that load during the 4 Peak SWIS Trading Intervals in Trading Month {n-3} was in excess of 1.0_MWh; and
- (b) the load did not deviate downwards from the median consumption in paragraph (a) by more than 10% for more than 10% of the time during Trading Month {n-3} except during Trading Intervals where:
 - i. the consumption was 0 MWh; or
 - ii. consumption was reduced at the request of System Management; or
 - iii. evidence is provided ~~by~~ the Market Customer that the source of the consumption was operating at below capacity due to maintenance or a Saturday, Sunday or a public holiday throughout Western Australia.

Step 3:

- If a load was not accepted under Step 1 as a Non-Temperature Dependent Load for Trading Month {n}; and
- If the load was accepted under Step 2, or previously under this Step 3, as a Non-Temperature Dependent Load for Trading Month {n-1},

then AEMO must accept the load as a Non-Temperature Dependent Load for Trading Month {n} if:

- (a) the median value of the metered consumption for that load was in excess of 1.0_MWh, calculated over the set of Trading Intervals defined as the 4 Peak SWIS Trading Intervals in each of the Trading Months commencing

at the start of the Trading Month for which metered consumption values were used by AEMO to accept the load as a Non-Temperature Dependent Load under Step 2 to the end of Trading Month (n-3); and

- (b) the load did not deviate downwards from the median consumption in paragraph (a) by more than 10% for more than 10% of the time during the period from the start of the Trading Month for which metered consumption values were used by AEMO to accept the load as a Non-Temperature Dependent Load under Step 2 to the end of Trading Month (n-3) except during Trading Intervals where:
- i. the consumption was 0 MWh; or
 - ii. consumption was reduced at the request of System Management; or
 - iii. evidence is provided by the Market Customer that the source of the consumption was operating at below capacity due to maintenance or a Saturday, Sunday or a public holiday throughout Western Australia.

Step 4:

Otherwise, AEMO must treat a load as a Temperature Dependent Load.

Appendix A. Responses to Submissions Received in the Second Submission Period

Issue	Submitter	Comment / Issue Raised	Rule Change Panel's Response
Issues related to the proposed decision to keep the meter data reference month for new meters at n-3			
1	Bluewaters	<p>New Meters are expected to get 'free IRCR' in their first three months of operation as a result of the combined effect of: (a) changing the meter ownership reference month to month n; and (b) keeping the New Meters' meter reading reference month at month n-3. This free IRCR means the true costs for Market Customers with New Meters are not properly reflected, and are essentially a subsidy for the Market Customers. Subsidies contribute to economic inefficiency and can result in over-investment (in this case, over-investment in New Meter loads). The economic term for such inefficiency is deadweight loss. Deadweight loss results in reduction of economic welfare compared to the circumstance where such subsidy does not exist.</p> <p>Under the proposed arrangement, the free IRCR in a month is expected to be subsidised by the Existing Meters. Such subsidy is essentially a tax on the Existing Meters. Such tax also results in a deadweight loss and hence compromises the welfare in the economy.</p> <p>Minimising the deadweight losses promotes economic efficiency which in turn is expected to promote the Wholesale Market Objectives. Bluewaters considers the Market Rules should not deviate from this fundamental economic principle unless there are compelling reasons for meeting the Wholesale Market Objectives, e.g. to promote</p>	<p>The Rule Change Panel acknowledges that the cross-subsidy resulting from not applying an IRCR charge to new interval meters for the first three months after their registration is not ideal. However, as outlined in section 6.2.5 of this report, the Rule Change Panel notes that:</p> <ul style="list-style-type: none"> the cross-subsidy is an existing problem and not a result of the changes proposed in RC_2016_07; and the cross-subsidy is unlikely to have a material adverse effect on the behaviour of Market Participants in practice, or result in a reduction in economic welfare. <p>Please also refer to section 6.2.5 of this report.</p>

Issue	Submitter	Comment / Issue Raised	Rule Change Panel's Response
		power system reliability and security and promoting competition.	
2	Bluewaters	<p>Bluewaters notes that an overarching principle for this Rule Change Proposal is trading IRCR certainty for the ability to better manage the newly identified prudential risk exposure. Under the proposed arrangement, by using month n as the reference month for meter ownership input information, the certainty of calculated IRCRs is expected to be compromised. The Rule Change Proposal proposed to address this uncertainty by introducing provisions to recalculate the IRCRs in the settlement adjustment process. This proposed arrangement was accepted by the Rule Change Panel in the Draft Rule Change Report.</p> <p>It is not clear to Bluewaters as to what the economic argument is for not applying the same principle for the meter reading input for the calculation of IRCR for a New Meter. That is, using the four peak interval meter reading information based on month n rather than month n-3, and address the issue of IRCR uncertainty/ inaccuracy using the settlement adjustment process. Bluewaters notes the Draft Rule Change Report's reasoning for this proposed decision. However, it is Bluewaters' view that the reasoning does not support sound economic principles.</p>	Please refer to section 6.2.5 of this report.
3	Bluewaters	The Draft Rule Change Report states that "removing the time lag for the responsible party reference month for new meters does not incentivise any undesirable Market Customer behaviour". Bluewaters strongly disagrees with	Please refer to the Rule Change Panel's response under Issue 1.

Issue	Submitter	Comment / Issue Raised	Rule Change Panel's Response
		<p>this reasoning. The subsidy and tax arising from the proposed arrangement compromise economic efficiency and contribute to potential over-investment of New Meter loads. This distortion in economic signal does not drive behaviour promoting an efficient economic outcome (hence is undesirable).</p> <p>The Draft Rule Change Report also states that “[i]f anything, not charging a new meter for IRCR during the first three months of registration incentivises the installation of new interval meters which is desirable.” Bluewaters also strongly disagrees with this statement. The increased New Meter installations (as a result of the subsidy) are reflective of an economic outcome where the output is over and above the efficient level.</p>	
4	Bluewaters	<p>The Rule Change Panel may consider the impact of the deadweight losses and economic signal distortion to be immaterial compared to the cost of managing the IRCR uncertainty. If this is the Rule Change Panel's view, Bluewaters recommends that the Rule Change Panel performs such cost-benefit analysis to support its Market Rules decision (quantitatively if possible).</p>	<p>As outlined in section 6.2.5 of this report, the cross-subsidy resulting from the current three-month IRCR charge exemption, is an existing problem outside the scope of RC_2017_06.</p> <p>The Rule Change Panel would need tangible evidence that the current three-month IRCR charge exemption causes material, inefficient over-investment in interval metered Loads to justify making changes to the meter data reference month on that basis.</p> <p>The Rule Change Panel has no such evidence, and considers it would be unreasonable to delay the progression of this Rule Change Proposal to conduct</p>

Issue	Submitter	Comment / Issue Raised	Rule Change Panel's Response
			<p>further investigations on the matter, given the urgency of the problems being addressed by the Amending Rules.</p> <p>Please refer to section 6.2.5 of this report.</p>
5	Bluewaters	<p>The Draft Rule Change Report states “it is not reasonably possible for Market Customers to estimate the IRCR or the relevant meter readings (as suggested by Bluewaters) for new meters before the actual month if the reference for meter data is moved to month n because the IRCR is determined by the share of consumption during the 4 Peak SWIS Trading Intervals”. Bluewaters is of the view that this statement should be tested and independently verified.</p> <p>Bluewaters considers managing uncertainty is already an element of Market Customers’ and AEMO’s business operations. An example of such uncertainty is that relating to load demand. Such uncertainty is being managed by Market Customers and AEMO by developing load forecasting methodologies.</p> <p>Bluewaters sees no reasons as to why IRCR uncertainty should be treated differently. Bluewaters also does not see why it would be not reasonably possible to manage such uncertainty by developing the relevant forecasting methodologies (or by other means).</p> <p>Bluewaters wishes to point out that the proposed settlement adjustment process is a fail-safe mechanism to account for any inaccuracy of the IRCR forecast. Therefore, accuracy of the forecast may not be so critical that requires prohibitive costs for developing the forecasting methodology. Market</p>	<p>The proposed settlement adjustment process does not resolve the Rule Change Panel’s main concerns with changing the meter data reference month to month n. The Rule Change Panel’s main concerns relate to uncertainty about IRCR values before and during the relevant Trading Month, and not the accuracy of final settlement outcomes.</p> <p>It is difficult for Market Customers to accurately predict the consumption of their new Loads in the 4 Peak SWIS Trading Intervals of a Trading Month, especially for Loads with changing or unpredictable consumption patterns (e.g. construction sites, Loads with irregular consumption and Loads that are highly temperature-dependent).</p> <p>AEMO would also need to determine accurate IRCR forecasts for use in its Outstanding Amount calculations and for the determination of Relevant Demands for use in Non-Balancing Dispatch Merit Orders. Forecasting the 4 Peak SWIS Trading Interval consumption for new interval meters would be even more challenging for AEMO than for Market Customers, as it has no direct relationship with the end consumer and extremely limited information about new Loads and their operations.</p> <p>If AEMO was unable to accurately forecast IRCR contributions then it would need to take a more conservative approach in its determination of Outstanding</p>

Issue	Submitter	Comment / Issue Raised	Rule Change Panel's Response
		<p>Customers who value such IRCR certainty would naturally be incentivised to invest in developing a more accurate forecasting methodology – and they can be given a choice for striking a balance between cost and IRCR accuracy.</p>	<p>Amounts, which would potentially have an adverse effect on all Market Customers.</p> <p>Please also refer to section 6.2.5 of this report.</p>
6	Bluewaters	<p>In the event where the Rule Change Panel decides to maintain month n-3 as the meter data reference month for new meters, there should be a provision in the Market Rules to recover such “free IRCR” from the New Meters, and pay the recovered costs to the parties who subsidise these costs (i.e. the Existing Meters).</p>	<p>Please refer to section 6.2.5 of this report.</p>
7	Bluewaters	<p>As discussed in Bluewaters’ submission for the Rule Change Proposal, promoting economic efficiency (i.e. minimising the deadweight losses) is a public benefit which directly benefits the end consumers. Economic efficiency is promoted by using month n for the meter reading reference data for the New Meters (rather than using month n-3).</p> <p>Using month n-3 as the reference month, on the other hand, is likely to result in a subsidy to New Meters and a tax on Existing Meters. The compromised economic efficiency is offset by the benefits from reduced IRCR uncertainty. The reduced IRCR uncertainty, however, is a private benefit to the Market Customers. Unlike the case for using month n, there is no certainty that such benefit will be passed on to the end consumers for promoting the Wholesale Market Objectives.</p>	<p>The Rule Change Panel disagrees with Bluewaters’ view that the reduction of IRCR uncertainty (through the retention of month n-3 as the meter data reference month for new meters) is a private benefit to Market Customers. This is because end consumers would likely be adversely affected by increased IRCR uncertainty in several ways, including:</p> <ul style="list-style-type: none"> • the pass through of any additional prudential costs due to AEMO needing to take a more conservative approach to its Outstanding Amount calculations; and • the effects of the methods used by retailers to manage the risk of increased IRCR uncertainty, which may include the issue of adjustment bills once final IRCR values are published, or incorporation of increased risk premiums in contract offers.

Issue	Submitter	Comment / Issue Raised	Rule Change Panel's Response
			<p>In addition, the costs incurred by AEMO to forecast IRCR contributions would be recovered from all Market Participants and eventually passed through to end consumers.</p> <p>The Rule Change Panel considers that the avoidance of these additional costs represents a public benefit, affecting end consumers and all Market Participants.</p> <p>Please also refer to section 6.2.5 of this report.</p>
8	Synergy	<p>Synergy considers that the proposed changes to Appendix 5 will negatively impact on Synergy relative to other Market Participants.</p> <p>In particular, Synergy considers that it is disadvantaged compared to other retailers when losing customers (Loads) as follows:</p> <p>A Market Customer that loses an interval metered Load to another Market Customer immediately stops to incur IRCR charges for that churned Load. But, if Synergy loses a Load that used to be metered by a non-interval meter and was upgraded (as part of the transfer to another Market Customer) to be metered by an interval meter, Synergy continues to incur IRCR charges for that Load until three months after the churn.</p> <p>The reason for the different outcome for non-interval meters and interval meters is that under the proposed Amending Rules the time lag to account for the upgrade of non-interval meters to interval meters in the IRCR calculation will be maintained, while the time lag to account for the transfer of</p>	<p>Please refer to section 6.2.5 of this report.</p>

Issue	Submitter	Comment / Issue Raised	Rule Change Panel's Response
		<p>interval meters from one Market Customer to another Market Customer will be removed.</p> <p>Synergy believes that even though the issue is of low to moderate materiality, such disadvantage goes against Wholesale Market Objective (b). Synergy notes that it would like to be in a market with a level playing field.</p> <p>Synergy proposes guidelines for calculating the IRCR contribution of a Load for the first three months after it upgrades from non-interval to interval metering, which would address the above issue as well as issue 14.</p>	

Issues related to the Capacity Credit Allocation process proposed in the Draft Rule Change Report

9	Synergy	<p>Synergy notes that the proposed changes refer to "Capacity Credits that are allowed to be traded bilaterally under clause 4.14.9" (see proposed clauses 2.31.13(l), 4.25.4CA, 9.4.5, 9.4.10 and 9.4.15). Synergy considers that references to clause 4.14.9 in the proposed rules are likely to result in inconsistent outcomes. Consider the following examples:</p> <ul style="list-style-type: none"> • Clause 4.14.9 does not reference Capacity Credits, rather the clause refers to Certified Reserve Capacity. Synergy notes that Certified Reserve Capacity may be materially higher than the Capacity Credits ultimately assigned to a Market Participant. Synergy considers that this will ultimately result in decisions on whether to approve certain applications or allocation submissions to be based on a number that is irrelevant to the 	The Rule Change Panel agrees with Synergy and has updated the Amending Rules accordingly, as outlined in section 6.2.3 of this report.
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Issue	Submitter	Comment / Issue Raised	Rule Change Panel's Response
		<p>decision being made (for example see proposed clause 4.25.4CA and 9.4.5); and</p> <ul style="list-style-type: none"> Even if clause 4.14.9 can be interpreted as referencing Capacity Credits rather than Certified Reserve Capacity, the relevant number in clause 4.14.9 is the number at a point in time. Therefore, Synergy considers that this number should not be used as a measure of the current Capacity Credits assigned to a Market Participant (which is what the proposed changes appear to intend). Synergy considers that, as currently drafted, the proposed Market Rules could result in undesirable outcomes, for example, because Capacity Credits may change over a year for a number of reasons—most notably where a Facility fails a Reserve Capacity Test under section 4.25 of the Market Rules. 	
10	Synergy	<p>Synergy questions if new proposed clauses 9.4.9 and 9.4.10 are necessary given clause 9.4.5. The clauses seem administratively burdensome for little or no gain.</p> <p><i>The Rule Change Panel engaged with Synergy after the second submission period to discuss this issue.</i></p> <p><i>Synergy acknowledged that, given that the requirement for counter parties to provide a Capacity Credit Allocation Acceptance existed in the Rule Change Proposal and was therefore unlikely to be removed from the Amending Rules that would be considered by the Rule Change Panel, proposed new clause 9.4.9 served a useful purpose in ensuring that Market Participants were promptly informed of</i></p>	<p>The Rule Change Panel considers that the requirement for Market Customers to formally accept a Capacity Credit Allocation Submission is necessary to avoid locking in erroneous Capacity Credit Allocations that could not be reversed without compromising the new prudential arrangements.</p> <p>Given this, the Rule Change Panel considers that the provisions in the proposed new clauses 9.4.9 and 9.4.10 are valuable as:</p> <ul style="list-style-type: none"> clause 9.4.9 serves a useful purpose in ensuring that Market Participants will be promptly informed of the

Issue	Submitter	Comment / Issue Raised	Rule Change Panel's Response
		<p><i>the status of their Capacity Credit Allocation transactions, and that proposed new clause 9.4.10 accounted for the possibility that a Market Generator's Capacity Credits or prudential situation could change between the time AEMO accepts a Capacity Credit Allocation Submission and the time it receives the corresponding Capacity Credit Allocation Acceptance. Synergy acknowledged that the clauses did not impose an unwarranted administrative burden on Rule Participants that did not exist in the original Rule Change Proposal.</i></p>	<p>status of their Capacity Credit Allocation transactions; and</p> <ul style="list-style-type: none"> clause 9.4.10 accounts for the possibility that a Market Generator's Capacity Credits or prudential situation could change between the time AEMO accepts a Capacity Credit Allocation Submission and the time it receives the corresponding Capacity Credit Allocation Acceptance. <p>Therefore the Rule Change Panel considers that the clauses will not impose an unwarranted administrative burden on any Rule Participant.</p>
11	Synergy	<p>Proposed new clause 9.4.18: AEMO's power to reduce Capacity Credit Allocations under this procedure is very broad. Synergy considers that the Market Rules should include further principles limiting and directing AEMO's power to unilaterally amend Capacity Credit Allocations.</p> <p><i>The Rule Change Panel engaged with Synergy following the second submission period to discuss Synergy's concern.</i></p> <p><i>Synergy clarified that its comments referred to AEMO's obligation to amend Capacity Credit Allocations under proposed new clause 9.4.17(a) if a Market Generator has failed to respond within two Business Days to a notice provided under proposed new clause 9.4.15. Synergy considered there were several credible alternative approaches to reducing a Market Generator's Capacity Credit Allocations when there are multiple recipients involved, e.g. pro-rating based on allocation MW, first-in</i></p>	<p>The Rule Change Panel notes that AEMO will only have to decide how to reduce Capacity Credit Allocations if the affected Market Generator (that has, due to a Capacity Credit reduction, allocated more Capacity Credits than it can trade bilaterally) fails to advise AEMO how the relevant Capacity Credit Allocations should be amended. This means that a Market Generator will never need to have its Capacity Credit Allocations modified by AEMO under clause 9.4.17(a).</p> <p>Further, the Rule Change Panel has no reason to believe that AEMO would choose an approach to amending Capacity Credit Allocation Submissions in these situations that was inconsistent with the Wholesale Market Objectives.</p>

Issue	Submitter	Comment / Issue Raised	Rule Change Panel's Response
		<p><i>last-out, etc. Synergy considered that each of the credible alternatives has the potential for significant financial repercussions, and from a governance perspective, AEMO should be given guidance in the Market Rules as to which alternative it should incorporate into its Market Procedure (rather than leave such a decision up to AEMO's discretion). Synergy considered the lack of a right for Market Participants to propose changes to AEMO's Market Procedures underscored the need for the principles/objectives of AEMO's approach to reducing Capacity Credit Allocations to be specified in the Market Rules.</i></p>	<p>For these reasons, the Rule Change Panel is not convinced of the need to include further prescription in the Market Rules on this matter.</p> <p>Even assuming that it would be beneficial to specify the approach in the Market Rules, implementing the necessary changes as part of RC_2017_06 is problematic. The Rule Change Panel acknowledges that different credible methods exist to correct the over-allocation when the affected Market Generator has allocated Capacity Credits to multiple Market Customers. However, the Rule Change Panel considers that none of the credible options is clearly superior to the others. To choose an approach for inclusion in the Amending Rules would therefore require further analysis and an additional round of public consultation. This would require a delay to the progression of RC_2017_06 that is difficult to justify, given the relevant urgency of this issue and the issues being addressed by the proposal.</p> <p>For these reasons the Rule Change Panel has decided not to include further principles to guide AEMO's actions under clause 9.4.17(a) in the Amending Rules.</p> <p>The Rule Change Panel believes that AEMO is best placed to determine how to deal with such situations via the Procedure Change Process, and notes that the Procedure Change Process requires AEMO to consult with Market Participants on the methodology.</p>

Issue	Submitter	Comment / Issue Raised	Rule Change Panel's Response
12	AEMO	With reference to proposed clause 9.4.14, AEMO suggests limiting the time within which a Capacity Credit Allocation Submission can be reversed. Specifically, AEMO proposes that Capacity Credit Allocation Submissions can only be reversed up until the time specified in clause 9.16.2(b)(ii) to ensure no changes are made during AEMO's settlement processing.	The Rule Change Panel agrees with AEMO, and has updated the Amending Rules accordingly, as outlined in section 6.2.3 of this report.

Other issues related to the proposed Amending Rules in the Draft Rule Change Report

13	Synergy	Synergy questions if the "or" at the end of 9.4.5(a)(ii) be an "and".	The Rule Change Panel agrees that the 'or' in proposed new clause 9.4.5(a)(ii) should be replaced with an 'and', and has amended clause 9.4.5 accordingly.
14	Synergy	<p>Synergy would like to bring to the Rule Change Panel's attention a pre-existing issue which affects Synergy regardless of this Rule Change.</p> <p>Essentially every time a non-interval meter is upgraded, the interval meter share of the market-wide IRCR goes up by the IRCR attributable to that meter (calculated based on the peaks in month n-3 on the basis the new meter is a "new interval meter") and the Notional Wholesale Meter share goes down by the average amount of a non-interval meter.</p> <p>Therefore, to the extent that the transferred meter is greater in size than the average non-interval meter, the Notional Wholesale Meter share of the IRCR overstates Synergy's "fair share" proportional to the amount the new interval meter exceeds the average non-interval meter.</p>	<p>The Rule Change Panel has clarified with Synergy that the issue raised does not exist.</p> <p>The exact IRCR contribution of new interval meters that have been upgraded from non-interval meters (and been non-interval meters during the relevant Hot Season) is excluded from the Notional Wholesale Meter, not an average.</p>

Issue	Submitter	Comment / Issue Raised	Rule Change Panel's Response
		<p>Synergy has evidence that most non-interval meters that upgrade to interval meters are in the order of 10-15 times bigger than the average size of a non-interval meter (e.g. 30 kW Vs average 3 kW). Therefore, to the extent the above issues are occurring, Synergy is being overcharged for IRCR on approximately a 10-to-1 basis for each non-interval meter that upgrades, and more where the meter churns to another retailer.</p> <p>Synergy proposes guidelines for the calculation of the IRCRs for NMIs metered by non-interval meters that would address the above issue as well as issue 8.</p> <p>Synergy considers that if the Rule Change Panel decides to deal with the issue raised in footnote 3 on page 14 of the Draft Rule Change Report (i.e. the issue addressed in the Rule Change Proposal RC_2018_01 (New Notional Wholesale Meter Manifest Error)) as a manifest error then it should concurrently resolve this issue.</p> <p><i>The Rule Change Panel engaged with Synergy after its second period submission to clarify the issue.</i></p> <p><i>Synergy agreed that under Step 7 of Appendix 5 the Notional Wholesale Meter TDL contribution ($TDL(v^*)$) is reduced for each relevant new interval meter by the same $NMTDCR(v)$ value as is calculated in Step 5 for that meter, not by the average amount of a non-interval meter. Therefore the issue raised above does not exist.</i></p>	
15	Synergy	The Rule Change Panel has stated that Step 8 of Appendix 5 requires changes to remove "manifest errors",	Please refer to Appendix F of this report.

Issue	Submitter	Comment / Issue Raised	Rule Change Panel's Response
		<p>however, the Draft Rule Change Report does not detail the nature of these manifest errors.</p> <p>Synergy considers that, should the Rule Change Panel release details of these purported manifest errors, and a Market Participant subsequently provides comment on the Rule Change Panel's amendments, all Market Participants should be given a further chance to comment on the changes so as to maintain the consultation arrangements in the rule change process that exist in the Market Rules.</p> <p><i>RCP Support engaged with Synergy after the second submission period to clarify Synergy's concern and subsequently provided Synergy with a detailed explanation of the rationale for the proposed changes to Step 8 (available in Appendix F of this report).</i></p>	<p>Synergy has since confirmed that RCP Support's explanation is sufficient for Synergy, and it does not have any further comments on the proposed changes to Step 8 of Appendix 5.</p>

Appendix B. Responses to Submissions Received in the Further Submission Period

Issue	Submitter	Comment / Issue Raised	Rule Change Panel's Response
Issues related to the nature of the cost-benefit analysis			
1	Change Energy	Change Energy notes that it appears that Synergy was consulted during the work on the cost-benefit analysis and other Market Participants were not given that opportunity.	The Rule Change Panel did not consult with Synergy on the cost-benefit analysis before other Market Participants. The Rule Change Panel requested information from Synergy on its cost for Credit Support to inform the Rule Change Panel's assumptions about Market Customers' costs for Credit Support because Synergy has the highest share of the difference in IRCR-related prudential exposure between the two scenarios, and likely has the lowest cost for Credit Support. This helped the Rule Change Panel make conservative assumptions for its initial cost-benefit analysis, and allowed it to subsequently consult with Synergy and all other Market Participants via the call for further submissions.

Issue	Submitter	Comment / Issue Raised	Rule Change Panel's Response
2	Synergy	In order to determine whether to support this proposal and identify whether the payback period is appropriate, Synergy as well as other Market Participants will require to undertake further financial analysis. To do that Synergy requires the Rule Change Panel to provide detailed financial data, such as TCI (total cost to implement RC_2017_06), CCS (cost of additional credit support), r (discount rate used in the Rule Change Panel's calculations) and Synergy's actual prudential exposure under the alternative proposal as estimated by the Rule Change Panel.	<p>As stated in the call for further submissions, the Rule Change Panel cannot publish the financial data requested by Synergy because:</p> <ul style="list-style-type: none"> • some Market Customers, including Synergy, have indicated that they consider their cost to provide Credit Support to be confidential; and • AEMO considers TCI to be confidential, and any of the other information requested by Synergy would allow back-calculation of TCI.
3	Perth Energy	The publication of cost estimates is extremely useful in Perth Energy arriving at an informed opinion on the merits of this rule change. The updated cost estimate is useful, however the redactions of key variables in the payback period such as the Total cost to implement (TCI) and the cost of additional credit support (CCS), make the cost estimate appear unrealistic.	<p>The outcome of the further submission period provided the Rule Change Panel with sufficient information to make a decision on RC_2017_06 without further consultation.</p> <p>The Rule Change Panel considers that the information provided in the call for further submissions is sufficient for stakeholders to determine whether they consider that RC_2017_06 better achieves the Wholesale Market Objectives.</p>
4	Perth Energy	Perth Energy would question the validity of an implementation cost of \$2.7 million. The major changes proposed are a shifting of the reference month from 'n-3' to 'n' and a change to the Capacity Credit Allocation timeframes in which generators and retailers can allocate Capacity Credits. From Perth Energy's understanding no new systems are required to achieve this, just adjustments to existing systems. It is difficult to understand from the data provided how this could cost \$2.7million.	<p>AEMO has advised the Rule Change Panel that its estimated cost to implement RC_2017_06 (\$2.7 million) is based on a robust estimation process, including tender submissions, and incorporates a contingency.</p> <p>The Economic Regulation Authority is responsible for approving AEMO's Allowable Revenue, and the Rule Change Panel suggests that Market Participants should</p>

Issue	Submitter	Comment / Issue Raised	Rule Change Panel's Response
			raise any concerns about AEMO's IT costs directly with AEMO or the Economic Regulation Authority.
5	Synergy	Synergy also considers that it would be beneficial if AEMO shows which features of the proposals are associated with which costs. For example, Synergy notes that if the costs are primarily associated with removing the n-3 lag, irrevocable bilateral trade declarations could potentially be introduced and remove the prudential risk.	<p>As stated in the call for further submissions, the Rule Change Panel and AEMO have explored several options for changes to the Amending Rules proposed in the Draft Rule Change Report to reduce the implementation costs. However, AEMO has advised that none of the changes considered would lead to significant cost savings. This assessment included the element of changing the responsible party reference month.</p> <p>The Rule Change Panel notes that the change of the responsible party reference month accounts for around 80% of the difference in IRCR-related exposure between the Alternative and RC_2017_06 Scenarios. The introduction of irrevocable bilateral trade declarations would therefore only remove around 20% of the prudential risk. That is, the change to the responsible party reference month represents the most important part of the proposal and should not be removed.</p>
6	Change Energy	Change Energy does not believe a cost benefit analysis is warranted for this type of rule change. There are far too many intangible considerations that are hard to measure. Change Energy provided examples of intangible considerations that should be taken into account.	The Rule Change Panel agrees that the cost-benefit analysis cannot be the only factor influencing its decision on RC_2017_06. Qualitative considerations have to be taken into account as well.

Issue	Submitter	Comment / Issue Raised	Rule Change Panel's Response
7	Community Electricity	<p>We perceive the new cost benefit assessment to compare an avoided cost of capital with the cost of achieving that avoidance. As such, we perceive the analysis to be unrealistically narrow in scope. We also consider it to be based on unrealistic assumptions.</p> <p>We suggest that the assessment should instead holistically consider the impacts – intangible and tangible – on the Market Objectives. Community Electricity provided examples of several aspects that should be included.</p>	<p>As outlined in section 7 of this report, the Rule Change Panel's final decision is based on quantitative and qualitative assessments of the proposal.</p> <p>The Rule Change Panel considers that the cost-benefit analysis and the further consultation was necessary because of the significant increase of AEMO's estimate for the implementation costs after the second submission period.</p> <p>The cost-benefit analysis in the call for further submissions listed a number of the qualitative benefits of RC_2017_06, as indicated in Appendix D to this report.</p>
8	Perth Energy	<p>A cost-benefit approach is useful, however it cannot be the sole decision making criteria. Allowing qualitative benefits and issues to be present in the decision making process regarding rule changes is imperative for considered decisions to be made. Whilst a cost-benefit approach is useful in understanding how a market rule change achieves objective 1.2.1 (a) and (d) of the Market Rules, it does not provide any clarity on how a market rule change will achieve objectives 1.2.1 (b), (c) and (e).</p>	<p>The Rule Change Panel has expanded on the list of qualitative benefits in Appendix D, taking into account the additional benefits listed by Change Energy and Community Electricity.</p>
Issues related to the cost of Credit Support			
9	Perth Energy	<p>Perth Energy agrees with the Rule Change Panel in stating that the cost of Credit Support is the opportunity cost of not entering into investments, as Credit Support amounts held by AEMO inhibit new investment from taking place. Under this</p>	<p>The Rule Change Panel notes that, as outlined in section 6.2.1 of this report, a Market Participant's Credit Support has to be sufficient to cover its prudential exposure. RC_2017_06 reduces the prudential exposure and therefore the required Credit Support.</p>

Issue	Submitter	Comment / Issue Raised	Rule Change Panel's Response
		<p>view, Credit Support to AEMO can be seen as a barrier to maximizing market objective 1.2.1 (b).</p> <p>Instead of trying to value the cost of Credit Support, the Rule Change Panel should target the lowest possible amount of Credit Support required to achieve objective 1.2.1 (a), such that Market Participants are given maximum support in being able to undertake investments and promote competitive behaviour in the SWIS and facilitate new entry of new competitors (MR 1.2.1 (b))</p>	
10	Synergy	<p>Synergy has reviewed the methodology of the cost-benefit analysis provided by the Rule Change Panel and notes that the methodology is based on the assumption that Market Customers provide Credit Support through Security Deposits and bank guarantees (essentially debt), which may not always be the case.</p> <p>In any event, Synergy is of a view that the use of the Weighted Average Cost of Capital (WACC) in the methodology will provide a more accurate cost-benefit analysis for this proposal as it weights each category of capital proportionally rather than just focusing on one category, such as debt.</p>	<p>The Rule Change Panel has revised its cost-benefit analysis after receiving information from some Market Customers on their costs for Credit Support.</p> <p>The Rule Change Panel has assumed a weighted cost of Credit Support based upon:</p> <ul style="list-style-type: none"> • costs depending upon the type of Credit Support currently provided to AEMO by each Market Customer (security deposit and/or bank guarantee); and • each Market Customer's contribution to the outstanding prudential exposure. <p>The Rule Change Panel believes that this approach is an accurate way to model actual costs for Credit Support in the market.³⁰</p>

³⁰ The Rule Change Panel notes that applying the WACC to derive the costs of Credit Support would further reduce the payback period.

Issue	Submitter	Comment / Issue Raised	Rule Change Panel's Response
Issues related to the payback period of the implementation costs for RC_2017_06			
11	Perth Energy	<p>The basis of Perth Energy's objection to RC_2017_06 is that the cost benefit identified in the call for further submissions is not justified. A payback period of less than 4 years is vague at best, and assuming this investment is paid back between years 3-4 (Feb 2022 at the earliest) this is a timeframe that is too long. Considering the Reserve Capacity Mechanism is one of the major reform items for the state government, Perth Energy has no comfort the 'solution' put forth in this call for further submissions will remain relevant, or will not need further amendment before the investment can be paid off.</p> <p>It is not clear this investment will ever be paid back, as it may become redundant through market reform. Providing comfort that market reform or regulatory changes will not make this investment in changing the IRCR and Capacity Credit Allocation rules a bad investment prior to the payback period being reached would be helpful.</p>	<p>The Rule Change Panel has refined its cost-benefit analysis after receiving further information from Market Customers about their cost of Credit Support. This refined analysis indicates that the payback period for RC_2017_06 is significantly shorter than estimated in the call for further submissions – under 2 years. Based on the commencement date of 1 June 2019, this would suggest that AEMO's costs would be paid back before the middle of 2021.</p> <p>Based on the timeline for the Government's reform program that the Public Utility Office shared at the MAC meeting on 9 May 2018, no material changes to the Reserve Capacity Mechanism are expected to take effect before the 2020 Reserve Capacity Cycle, which corresponds to the 2022 Capacity Year for the purposes of IRCR and Capacity Credit Allocations.</p>
12	Perth Energy	<p>It is also unclear if the payback period includes the 12 months Synergy may require to renegotiate its PPA agreements that are affected by the rule change. As such the payback from this investment could exceed 4 years from the date of ministerial approval.</p>	<p>Please refer to issue 11 in this table.</p>

Issue	Submitter	Comment / Issue Raised	Rule Change Panel's Response
13	Perth Energy	<p>Given that this rule change is likely to make participants 'Credit Support' neutral compared to the levels they hold today, Perth Energy would view the benefits of this rule change as minimal, and as such implementation should have a relatively low cost and a short payback period. A payback period within 12 months would be expected for what should be considered minor changes to AEMO's settlement system.</p>	<p>As outlined in the call for further submissions and section 6.2.1 of this report, the Status Quo Scenario is not consistent with the Wholesale Market Objectives and the intent of the WEM prudential regime. Therefore the benefit of RC_2017_06 cannot be assessed against the status quo, but against the alternative solutions available. The Rule Change Panel has identified the Alternative Scenario as the most likely option to address the issue if RC_2017_06 cannot be implemented.</p> <p>Based on the feedback received in the further submission period the Rule Change Panel has updated the cost-benefit analysis and the updated payback period is likely to be significantly shorter than estimated in the call for further submissions – less than 2 years.</p>

Issues related to the Alternative Scenario

14	Perth Energy	<p>The basis for the objection for the alternative proposal is that it places an unnecessary prudential burden on Market Participants. Discussions throughout the development of RC_2017_06 have provided several avenues as to which AEMO can lower its exposure to Market Participants and therefore lower the onerous prudential requirements. These have all been ignored for the development of the alternative proposal, and as such Perth Energy objects to the alternative proposal as it feels in the absence of RC_2017_06 the alternative proposal is in contravention to market objective 1.2.1(b).</p>	<p>The implementation of daily IRCR as well shorter Non-STEM settlement periods would require more fundamental changes to AEMO's settlement system and significant changes to the Metering Code.</p> <p>The implementation of shorter Non-STEM settlement periods and separate invoices for energy and IRCR-related payments would not adequately resolve the problems identified by AEMO if no changes are made to the responsible party reference month.</p>
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Issue	Submitter	Comment / Issue Raised	Rule Change Panel's Response
		<p><i>The Rule Change Panel clarified that the discussions Perth Energy is referring to took place at AEMO's workshop on 3 March 2017, before the formal submission of RC_2017_06. Perth Energy indicated that the following possible improvements were discussed at that meeting:</i></p> <ul style="list-style-type: none"> • <i>implementation of daily IRCR;</i> • <i>shorter settlement timeframes (weekly or monthly but earlier); and</i> • <i>potentially splitting energy and RCM settlement.</i> 	<p>The Rule Change Panel notes that decisions on whether to make such fundamental changes to AEMO's settlement system and the Metering Code are to be addressed as part of the Government's forthcoming reform program, in conjunction with other reforms, such as the implementation of a new dispatch engine.</p> <p>The implementation of a new dispatch engine is not expected before 2022. The Rule Change Panel considers that it would be unacceptable to maintain the status quo, and therefore the current credit risk for that long.</p>
15	Synergy	<p>Synergy is also of a view that the time provided for review and consideration of what appears to be a completely new proposal is not sufficient to perform any in depth analysis and financial modelling. We understand that the Rule Change Panel were potentially looking for some high level views from the Market Participants, however, in order to provide a meaningful feedback, Synergy, and we assume other Market Participants, need to undertake financial modelling based on more detailed data.</p> <p>Synergy believes that limited data and details that was provided on the alternate proposal and insufficient time to investigate the effects of the proposal, may cause the Rule Participants to potentially double up on some of the work needed as part of this "request for further submissions" and the work that will be required for any future consultation on the alternative proposal. Compounding this issue is that, due to the lack of time, detail and data, Synergy is unlikely to be</p>	<p>The Rule Change Panel specified the Alternative Scenario in the cost-benefit analysis as the most likely scenario if RC_2017_06 is rejected because the Status Quo Scenario is not a viable option.</p> <p>The Alternative Scenario would need to be fully scoped and assessed if RC_2017_06 was rejected; but the Rule Change Panel does not intend to do any further work on the Alternative Scenario given the broad support for RC_2017_06, and the significant qualitative and quantitative benefits of the proposal. No further feedback is required from Market Participants about the Alternative Scenario.</p>

Issue	Submitter	Comment / Issue Raised	Rule Change Panel's Response
		able to efficiently leverage the work completed as part of this process in any future submissions on the matter.	
16	Synergy	Synergy notes that in its assumptions for the alternative approach the Rule Change Panel is also not taking into account bilateral allocations of Capacity Credits between Market Participants for the days in the past for which the allocation window has not yet closed. Synergy would like to stress that if the Alternative Scenario is chosen, we will need to request more time to assess the implications of the new approach on our operations, bilateral trade arrangements in particular.	
17	Synergy	Synergy is of a view that the Rule Change Panel should consider whether the Alternative Scenario can be implemented under the current WEM Rules (for example, potentially under clauses 2.37.5(d) and (i)) and no new Rule Change Proposal would be required. This may potentially reduce the implementation timeframes slightly and reduce the cost.	<p>The Alternative Scenario cannot be implemented under the current Market Rules. Clauses 2.37.5(d) and (i) clearly state that AEMO must base the Credit Limit calculation on historic levels of Reserve Capacity settlement payments, and Market Participant Fee settlement payments. Clause 2.37.5 only allows AEMO to use estimates of a Market Participant's future level of settlement payments if no historic settlement data is available for the Market Participant.</p> <p>However, as indicated in the Rule Change Panel's response to issues 15 and 16, no further consideration is being given to the Alternative Scenario.</p>

Issue	Submitter	Comment / Issue Raised	Rule Change Panel's Response
Issues related to solutions not considered			
18	Perth Energy	<p>As per the initial feedback put to AEMO on 10 March 2017:</p> <p>“Perth Energy would prefer AEMO to take a holistic approach to this issue, and to focus on implementing the more fundamental changes required in the settlement system such as weekly settlements and daily IRCR”</p> <p>Taking the time to improve the settlement system in its entirety by reducing the time lag associated with the settlement timeline for both energy and reserve capacity obligations will provide material long lasting benefits to the market. The current Rule Change Proposal and Alternative Scenario are simply temporary improvements that aim to paste over the fundamental issues surrounding the AEMO settlement system.</p>	Please refer to issue 11 in this table.
19	Perth Energy	As the market has carried this risk since market start, Perth Energy is happy to continue to carry this risk until a fit for purpose solution can be put in place which aims to provide larger benefits and actually works towards reducing the amount of credit support held by market participants.	As outlined in section 6 of this report, the Rule Change Panel considers that the status quo is not consistent with the Wholesale Market Objectives and the intent of the WEM prudential regime. The Rule Change Panel does not consider it acceptable to retain the status quo.
20	Synergy	Synergy considers that the Rule Change Panel should also explore the extent to which the current Market Rules allow AEMO to assess the need for greater Credit Support for those Market Participants that it considers are at greater risk of defaulting – this will assist in reduction of overall market	The Rule Change Panel considers that the relevant financial institutions are best placed to assess Market Participants' risks of default, and that such a function should not be placed on AEMO.

Issue	Submitter	Comment / Issue Raised	Rule Change Panel's Response
		<p>prudential exposure while better targeting the costs associated with increased prudential risks to those participants causing the risk (i.e. better reflects an economically efficient "causer pays" approach).</p>	

Appendix C. MAC Consultation

AEMO presented the concepts for the Rule Change Proposal to the MAC at its 14 June 2017 meeting, and a Pre-Rule Change Proposal was discussed at the MAC meeting on 12 July 2017.

The proposal was further discussed by the MAC at its 14 March 2018 meeting, which was after the close of the second submission period. A summary of the discussion is provided in section 3.2 of this report.

A summary of the relevant discussions in all three MAC meetings is provided below.

Further details of the relevant MAC meetings are available in the MAC meeting papers and minutes available on the Rule Change Panel's website at [Market Advisory Committee Meetings - Economic Regulation Authority Western Australia](#).

14 June 2017 MAC Meeting

Mr Stuart MacDougall from AEMO gave an overview of the status of the Rule Change Proposal that was under development. The following key points were discussed:

- Mr MacDougall noted that the associated changes to the Outstanding Amount calculation would be the subject of a separate Procedure Change Proposal. Mrs Jacinda Papps commended the level of consultation undertaken by AEMO on the Rule Change Proposal and noted it would be beneficial if AEMO consulted in a similar manner on the Procedure Change Proposal, given the potential effects of changes to the Outstanding Amount calculation on Market Participants. Mr Mark Katsikandarakis confirmed AEMO's intention to engage extensively with stakeholders on the Procedure Change Proposal to ensure that the amended Outstanding Amount calculation was fair and robust.
- In response to a question from Mr Ignatius Chin, Mr Katsikandarakis advised that the Rule Change Proposal and Procedure Change Proposal could be progressed concurrently and were proposed to be implemented at the same time. AEMO intended to start consultation on the Procedure Change Proposal once the Rule Change Proposal was in the formal process.
- Mr Geoff Gaston asked if over-allocations of Capacity Credits to Market Customers³¹ arising from the recalculation of IRCRs for settlement adjustments would be managed in the same way as over-allocations of Capacity Credits arising from the difference of the Indicative IRCR and the IRCR. Mr MacDougall confirmed that this was AEMO's intention.

MAC members agreed that:

- once AEMO has completed its internal review process, RCP Support should circulate the Pre-Rule Change Proposal to MAC members and the current meeting observers on AEMO's behalf, for a 1-2 week out-of-session review; and
- after consideration of any feedback, AEMO should submit the proposal into the formal rule change process.

³¹ Where the Capacity Credits bilaterally allocated to a Market Customer exceed the Market Customer's IRCR.

12 July 2017 MAC Meeting

Mr MacDougall and Mr Katsikandarakis attended the meeting to answer any questions from members regarding AEMO's Pre-Rule Change Proposal that was circulated on 3 July 2017 for feedback by 5:00 pm on 14 July 2017.

- In response to a query from Ms Wendy Ng, Mr MacDougall confirmed that the proposed window for making Capacity Credit Allocations opened before the Trading Month in which the liabilities occurred and closed at the Interval Meter Deadline for that Trading Month (i.e. after the Trading Month).
- Mr Gaston asked for clarification of the proposed transitional arrangements. Mr MacDougall explained that the IRCR obligations for the first Trading Month under the new arrangements would be allocated to Market Customers based on their meter ownership across the four months up to and including that Trading Month.
- In response to a query from Mrs Papps, Mr MacDougall confirmed that the estimated implementation cost of this approach was no greater than that of the alternative "drop dead" approach, under which IRCR would be determined based on meter ownership in the Trading Month from the first Trading Month after commencement.
- Mrs Papps noted that Alinta had supported the drop dead transition approach and asked how AEMO decided which approach to propose. Mr MacDougall replied that AEMO also received feedback supporting the proportional approach, though many parties appeared to be indifferent. Mr Gaston expressed a preference for the drop dead approach. Mr Katsikandarakis replied that AEMO chose the proportional approach as it considered it fairer that ownership in all months be captured in the IRCR calculations, but noted the proposal would still be open to amendment through the formal consultation process.
- No MAC members raised any concerns about progression of the proposal into the formal rule change process, although Mr Will Bargmann noted that Synergy would probably raise some issues with the proposal during the formal consultation process.

14 March 2018 MAC Meeting

- The Chair advised that RCP Support was working on a more detailed cost-benefit analysis for RC_2017_06 after receiving updated time and cost estimates from AEMO. RCP Support expected to publish a call for further submissions seeking continued support from Market Participants for RC_2017_06 on the basis of this cost-benefit analysis. RCP Support was also considering how the proposal could be modified to reduce costs.
- Mrs Papps asked which parts of RC_2017_06 RCP Support was thinking of modifying. The Chair replied that this had not yet been determined. Ms Jenny Laidlaw added that if any potential changes were identified they would be included as options for stakeholder consideration in the call for further submissions, along with their estimated costs and benefits.
- In response to a question from Mrs Papps and Mr Gaston, the Chair confirmed that AEMO's revised cost estimate had not been published as AEMO was still in negotiations with its IT providers and had asked that this information be kept confidential.
- Mrs Papps noted Alinta Energy's strong support for retaining the proposed changes to the responsible party reference month used for IRCR calculations (from n-3 to n). Ms Laidlaw noted it would be helpful if the submissions to the call for further submissions included further information on the more qualitative benefits of the proposal.

- Mr Martin Maticka noted that when AEMO performed a more detailed technical analysis it found the implementation cost was going to be much greater than originally expected. AEMO still believed that RC_2017_06 should go forward to address the large prudential exposure in the market; and that the proposed changes would be the most effective way to address the problem. Mr Maticka suggested that Market Participants make a submission if they considered there was another, simpler solution that addressed the problem without increasing the prudential requirements; or if they wanted to provide any particular strong support to specific components of the proposal.
- Mrs Papps asked at what point additional changes to the proposed Amending Rules might invalidate the rule change process, given the Draft Rule Change Report was already published. Ms Laidlaw replied that changes large enough to warrant starting the rule change process again were not expected.
- The Chair reiterated the Rule Change Panel's view that further consultation was necessary given the increased cost estimates provided by AEMO. Mr Maticka noted that AEMO would always take the position that the market should not be unnecessarily exposed, so if RC_2017_06 was rejected, then AEMO would look at another Rule Change Proposal to protect the market.

Appendix D. Cost-Benefit Analysis

D.1 Background

AEMO developed RC_2017_06 to reduce the actual level of unaccounted for prudential exposure in the WEM, which would mitigate the need for Market Customers to provide increased Credit Support to cover such exposure. However, AEMO has determined that the cost to implement RC_2017_06 will be about \$2.7 million, which is significantly higher than was specified during consultation on the Draft Rule Change Report.

The Rule Change Panel and AEMO explored several options for changes to the Amending Rules, as proposed in the Draft Rule Change Report for RC_2017_06, to reduce the implementation costs. However, AEMO advised that none of the changes considered would lead to significant cost savings.

Therefore, based on feedback received in the further submission period, the Rule Change Panel has undertaken the cost-benefit analysis outlined below to inform its decision on RC_2017_06. The analysis is based on the Amending Rules presented in this Final Rule Change Report³².

D.2 Scenarios

The Rule Change Panel considered a Status Quo Scenario where it rejects RC_2017_06. The Status Quo Scenario would save the market the costs to implement RC_2017_06, but the currently unaccounted for prudential exposure would remain. The Rule Change Panel does not support the Status Quo Scenario because:

- the Status Quo Scenario is inconsistent with the Wholesale Market Objectives;
- the design of the Market Rules clearly indicates an intent for all Market Participants to cover their prudential exposure, and the Status Quo Scenario does not achieve this intent because:
 - some Market Customers are not required to provide sufficient Credit Support to cover their own prudential exposure, leaving the associated credit risk to be carried by the market; while
 - all other Market Participants are required to provide sufficient Credit Support to cover their own prudential exposure;
- only Perth Energy has supported the Status Quo Scenario; and
- the status quo results in a cross-subsidy to some Market Customers for which there is no logical justification.

The Rule Change Panel therefore considered two scenarios in its cost-benefit analysis:

RC_2017_06 Scenario:

- The Rule Change Panel approves RC_2017_06 as proposed in this Final Rule Change Report.
- AEMO develops and implements systems changes to implement RC_2017_06.
- The currently unaccounted for prudential exposure is removed and will therefore not need to be covered by increased Credit Support.

³² The Rule Change Panel's initial cost-benefit analysis, as published in the call for further submissions, was based on the Amending Rules as proposed in the Draft Rule Change Report. The further changes that the Rule Change Panel makes to the Amending Rules in this Final Rule Change Report have no impact on the cost-benefit analysis.

Alternative Scenario:

- The Rule Change Panel approves RC_2017_06 in a modified form:
 - the Rule Change Panel, in consultation with AEMO and other stakeholders, develops another, simpler set of Amending Rules; and
 - the alternative Amending Rules would allow AEMO to amend the Credit Limit and Outstanding Amount calculations to cover the presently unaccounted for prudential exposure with Credit Support.
- AEMO develops and implements systems changes to implement the alternative Amending Rules.
- The presently unaccounted for prudential exposure is covered by Credit Support.

D.3 Assumptions

Table 1 sets out the Rule Change Panel's assumptions for the costs and benefits of the changes to the Market Rules under the RC_2017_06 and Alternative Scenarios.

Table 1 – Assumptions for the Cost-Benefit Analysis

	Alternative Scenario	RC_2017_06 Scenario
Costs	<ul style="list-style-type: none"> An alternative proposal has not been fully scoped and would need to be developed. AEMO has estimated its minimum costs to develop and implement the required rule changes, procedure changes, and system changes of [REDACTED].³³ The Rule Change Panel would incur additional costs to develop and process the rule change. Market Customers may incur costs for system changes. 	<ul style="list-style-type: none"> AEMO has estimated it will cost up to \$2.7 million to update its systems.³⁴ Some Market Customers have indicated that they will incur costs for systems changes to implement RC_2017_06, although no Market Participant has provided specific estimates, and none have indicated that these costs would be sufficiently material that they would object to the proposal. Some Market Customers may need to amend their PPAs because of RC_2017_06 and would incur costs to do so.
Benefits	<ul style="list-style-type: none"> The currently unaccounted for prudential exposure is covered by Credit Support. 	<ul style="list-style-type: none"> It is estimated that the maximum IRCR-related prudential exposure that will need to be covered by Credit Support will be about \$69 million lower under the RC_2017_06 Scenario than under the Alternative Scenario.³⁵ The calculation methodology for this estimate is explained in Appendix A of the call for further submissions.

³³ AEMO provided an estimate of its costs to develop and implement the Alternative Scenario based on assumptions about the time it would take to develop the necessary changes to the Market Rules and procedures, and to develop and implement the system changes, using a team of internal and external resources. AEMO provided a conservative estimate of its minimum costs for the Alternative Scenario because the details of the scenario have not been fully developed. AEMO has therefore requested that this cost estimate be kept confidential.

³⁴ AEMO's estimated cost for the RC_2017_06 Scenario of \$2.7 million is based on a robust estimation process, including tender submissions, and incorporates a contingency. This is therefore a reliable and conservative estimate.

³⁵ That is, by implementing RC_2017_06, Market Customers will not need to provide AEMO with Credit Support to cover \$69 million of prudential exposure that would need to be accounted for in the Alternative Scenario.

As indicated in the Draft Rule Change Report, AEMO's original estimate was that \$150 million to \$190 million of Credit Support would be needed to cover the unaccounted for prudential exposure. However, this estimate did not fully take into account the ability of Market Customers with Capacity Credits to use their Capacity Credits to offset their IRCR liabilities. Therefore the estimate in the Draft Rule Change Report represents an upper bound on the unaccounted for prudential exposure.

For the cost-benefit analysis, the Rule Change Panel decided to recognise some income from Capacity Credits in the estimate of the unaccounted for prudential exposure. It is uncertain how the prudential regime would actually be amended in the Alternative Scenario, so it is not clear what the actual difference in Credit Support would be between the two scenarios. The approach used for this cost-benefit analysis, as outlined in Appendix A of the call for further submissions, ensures a conservative assessment of the payback period for RC_2017_06.

Table 1 – Assumptions for the Cost-Benefit Analysis

	Alternative Scenario	RC_2017_06 Scenario
Development time	<ul style="list-style-type: none"> Uncertain. An alternative proposal to RC_2017_06 has not been fully scoped. The time it would take to develop, approve, and implement an alternative proposal may extend the period that the market is exposed to the unaccounted for prudential amount. 	<ul style="list-style-type: none"> AEMO has estimated it will take 11 months to implement RC_2017_06 from the point that the Minister approves the proposal. Some Market Customers may need to amend their PPAs because of RC_2017_06, although only Synergy has provided a specific timeline, suggesting that it and other Market Participants would require up to 12 months from the Minister’s approval of the Amending Rules to make any necessary changes to their PPAs.
Qualitative Benefits	<ul style="list-style-type: none"> None identified. 	<ul style="list-style-type: none"> Removing the time lag for the responsible party reference month will: <ul style="list-style-type: none"> remove complexity from the Reserve Capacity Mechanism; and remove the risks that are borne by Market Customers because they continue to incur IRCR liabilities for a load for three months after losing that load. Determining the 12 Peak SWIS Trading Intervals at one fixed point in time instead of every month will remove the risk that the 12 Peak SWIS Trading Intervals will change during a Capacity Year, which represents a risk for Market Customers in the form of uncertainty. The lower Credit Support requirement leads to a lower barrier for competition than under the Alternative Scenario.

Table 1 – Assumptions for the Cost-Benefit Analysis

	Alternative Scenario	RC_2017_06 Scenario
		<ul style="list-style-type: none"> The lower Credit Support requirement leads to lower costs for retailers, and therefore lower prices for end consumers than under the Alternative Scenario.
Qualitative Costs	<ul style="list-style-type: none"> None identified. 	<ul style="list-style-type: none"> None identified.

D.4 Methodology

The Rule Change Panel modelled the discounted payback period for the investment to implement RC_2017_06 to provide the Rule Change Panel and Market Participants with information to assess the costs and benefits of the proposal. Discounted payback period was selected as the metric to present to Market Participants because some of the cost information used in the analysis is confidential.

The formula for the discounted payback period is:³⁶

$$DPP = \ln \left(\frac{1}{1 - \frac{TCI \times r}{UPE \times CCS}} \right) \div \ln(1+r)$$

Where:

- DPP = discounted payback period;
- ln = natural logarithm;
- TCI = total cost to implement RC_2017_06;
- UPE = unaccounted for prudential exposure;
- CCS = cost of additional credit support; and
- r = discount rate.

Table 2 indicates how the assumptions from Table 1 have been applied to the payback period calculation.

Table 2 – Cost-Benefit Methodology	
Variable	Source
Total cost to implement RC_2017_06 (TCI)	The TCI for the cost-benefit analysis = [REDACTED]. This is calculated as the cost of the RC_2016_07 Scenario (\$2.7 million) less the cost of the Alternative Scenario ([REDACTED]), as indicated in Table 1.
Unaccounted for prudential exposure (UPE)	The unaccounted for prudential exposure is estimated at \$69 million. This is the estimated difference in prudential exposure between the RC_2017_06 vs Alternative Scenarios. See section D.5 of this for information on how this was determined.
Cost of additional credit support (CCS)	The cost of Credit Support is estimated at [REDACTED]. The Rule Change Panel estimated the cost of Credit Support as a weighted cost of Credit Support for the various Market Customers. The weights used in calculating the cost of Credit Support were based on the Market Customers' share of the unaccounted for prudential exposure. The Rule Change Panel's assumption for CCS in its initial cost-benefit analysis was [REDACTED], based on actual costs provided by

³⁶ The formula for the discounted payback period was sourced from <http://financeformulas.net/Discounted-Payback-Period.html>.

Table 2 – Cost-Benefit Methodology

Variable	Source
	<p>Synergy,³⁷ and some highly conservative assumptions on the cost for Credit Support for the other Market Customers, based on publicly available information.</p> <p>However, Change Energy and Community Energy have subsequently provided the Rule Change Panel with information on their costs for providing Credit Support, and AEMO has provided further information about how the various Market Customers provide Credit Support. This additional information has allowed the Rule Change Panel to update its estimate for CCS to [REDACTED].³⁸</p>
Discount rate (r)	<p>The discount rate is estimated at [REDACTED].³⁹</p> <p>The Rule Change Panel has assumed a conservative discount rate based on publicly available information.</p>

D.5 Calculation of the Prudential Exposure Removed by RC_2017_06

The Rule Change Panel estimated the unaccounted for IRCR-related prudential exposure that will be removed under the RC_2017_06 Scenario to be the difference between:

- the IRCR-related exposure under the RC_2017_06 Scenario; and
- the IRCR-related exposure under the Alternative Scenario.

This estimate is based on data available to the Rule Change Panel about individual Market Participants' Capacity Credits, IRCRs, and bilateral allocations of Capacity Credits for the 2017 Reserve Capacity Year.

The Rule Change Panel made the following assumptions to calculate the difference in IRCR-related exposure between the RC_2017_06 and the Alternative Scenarios:

- For days in the past, for which the Capacity Credit Allocation window has already closed:
 - the IRCR-related exposure will be the same under the RC_2017_06 and Alternative Scenarios.

³⁷ 'Market Participants' cost of Credit Support is confidential, and so the Rule Change Panel's assumptions on the cost of Credit Support have been redacted from this report.

³⁸ The appropriate cost of providing Credit Support via Security Deposits is a risk adjusted opportunity cost that recognises that the Market Customers will forgo other investment opportunities in providing the Credit Support. The cost of providing the Credit Support for these Market Customers is therefore calculated as:

$$R_d = R_f + \text{DRP}$$

Where

- R_d = the cost of debt;
- R_f = the risk-free cost of debt, which is assumed to be the Government Bank Bill Rate (currently 1.7% for April 2018, as published by AEMO); and
- DRP = the Market Customer's debt-risk premium.

However, AEMO pays interest to Market Customers that provide Security Deposits, at the Government Bank Bill Rate. Therefore, the cost of Credit Support for Market Customers that provide Security Deposits is equivalent to DRP.

³⁹ The discount rate has been redacted from this report so that the confidential cost information in this report cannot be back-calculated.

- For days in the past, for which the Capacity Credit Allocation window has not yet closed:⁴⁰
 - under the RC_2017_06 Scenario, bilateral allocations of Capacity Credits are locked in (by Capacity Credit Allocation Submissions and Capacity Credit Allocation Acceptances) at a historic level (based on each Market Participant's average bilateral allocations in the 2017 Reserve Capacity Year);
 - under the Alternative Scenario:
 - bilateral allocations of Capacity Credits between different Market Participants are not taken into account; and
 - Market Customers that hold Capacity Credits (e.g. gentailers) are taken to sell all their Capacity Credits to AEMO (creating revenue that is accounted for); and
 - payments for DSM Capacity Credits are taken into account under both scenarios.
- For days in the future (following the suspension of the Market Participant):
 - under the RC_2017_06 Scenario, there is no IRCR-related exposure; and
 - under the Alternative Scenario:
 - Market Customers incur an IRCR-related exposure for three months into the future;
 - future revenue from Capacity Credits for gentailers is taken into account to offset their future IRCR-related exposure;⁴¹ and
 - potential revenue from DSM Capacity Credits is not accounted for, because the Market Customer would likely lose the Associated Loads of its Demand Side Programmes in the case of a suspension event, and would therefore also lose its DSM Capacity Credits.

D.6 Results

The Rule Change Panel initially estimated the payback period for implementing RC_2017_06 to be less than four years, at a [REDACTED] discount rate. Based on the updated information that has been provided, the Rule Change Panel now estimates the payback period to be significantly shorter – less than 2 years.

The Rule Change Panel has conducted a sensitivity analysis on the payback period, and as would be expected, found that the payback period:

- increases as the total cost of implementation (TCI) increases;⁴²
- reduces as the cost of Credit Support (CCS) increases; and
- increases as the discount rate (r) increases.

⁴⁰ This period can be a maximum of 46 days under the current Settlement Timeline.

⁴¹ This approach is chosen because AEMO can direct Market Generators that have been suspended to fulfil their Reserve Capacity Obligations. To account for the uncertainty of these revenues due to possible refunds and reductions of Capacity Credits, the Rule Change Panel has discounted the Capacity Credits of each Market Generator by excluding the Capacity Credits of its biggest unit.

⁴² The relationship between the cost of implementing RC_2017_06 and the payback period is not linear, and becomes more sensitive (i.e. the payback period changes by a larger amount) as the cost to implement RC_2017_06 increases.

Appendix E. Amendments following the First Submission Period

Following the first submission period, the Rule Change Panel made some additional changes to the proposed Amending Rules. A summary of these changes is provided below. The additional amendments are shown in detail in Appendix B of the Draft Rule Change Report

E.1 Section 1.25 (Previously New Proposed Section 1.21) for Transitional Provisions⁴³

The Rule Change Panel renumbered the new section 1.21, which outlines the transitional provisions to section 1.25; as sections 1.21, 1.22, 1.23 and 1.24 already exist in the Market Rules.⁴⁴

The Rule Change Panel also amended new section 1.25 to:

- manage the change of the responsible party reference month by implementing the ‘drop dead approach’ instead of the ‘even split approach’ proposed by AEMO, as outlined in section 6.2.6 of this report, by deleting the new proposed clause 1.25.3 (previously the new proposed clause 1.21.3) and amending Appendix 5;
- improve the clarity and effectiveness of the transitional provisions by:
 - amending new proposed clauses 1.25.1 and 1.25.2⁴⁵ (previously the new proposed clauses 1.21.1 and 1.21.2); and
 - introducing new clauses 1.25.3, 1.25.4, 1.25.5, 1.25.6, 1.25.7 and 1.25.8⁴⁶.

E.2 Changes to Responsible Party Reference Month

The Rule Change Panel amended Step 5 of Appendix 5 to ensure that non-interval meter growth beyond month n is not considered in the IRCR calculation to provide for consistency with the treatment of new interval meters as outlined in section 6.2.2 of this report.

The Rule Change Panel also made minor amendments to Appendix 5 to provide clarity and remove several manifest errors. These changes are explained in the comment boxes in Appendix B of the Draft Rule Change Report and in Appendix F of this report.

E.3 Market Generator Over-Allocation

As outlined in section 6.2.3.1 of this report, the Rule Change Panel decided to:

- amend clause 2.31.13⁴⁷ to require AEMO to reject an application for Facility transfer if the Market Generator would not hold sufficient Capacity Credits to fulfil all of its Capacity Credit Allocations as a result of transferring the Facility;
- amend clause 4.25.4C and introduce new clause 4.25.4CA to require AEMO to reject an application for the reduction of Capacity Credits if the relevant Market Generator would not hold sufficient Capacity Credits to fulfil all of its Capacity Credit Allocations as a result of the reduction; and

⁴³ As outlined in section 6.4.2 of this report, the Rule Change Panel has further renumbered new section 1.25 to section 1.26 because a new clause 1.25 has been added to the Market Rules since the Draft Rule Change Report was published.

⁴⁴ These sections commenced after AEMO submitted its Rule Change Proposal.

⁴⁵ That have been further renumbered to clauses 1.26.1 and 1.26.2 after the publication of the Draft Rule Change Report.

⁴⁶ As outlined in section 6.4.2 of this report, the Rule Change Panel has made further changes to this section introducing new clauses 1.26.3 and 1.26.10; and renumbering the other clauses in this section accordingly. The Rule Change Panel has also made further amendments to clause 1.26.4 (clause 1.25.3 in the Draft Rule Change Report).

⁴⁷ As outlined in section 6.4.2 of this report, the Rule Change Panel has made further amendments to clause 2.31.13 to achieve this aim.

- amend clauses 9.4.5 (previously the proposed new clause 9.4.4) and 9.4.10⁴⁸ to ensure that AEMO must reject a Capacity Credit Submission or Capacity Credit Acceptance if the proposed allocation of Capacity Credits could lead to a Market Generator bilaterally allocating more Capacity Credits than it holds to fulfil all its Capacity Credit Allocations.

E.4 Process for Capacity Credit Allocation

To facilitate the changes to the process for Capacity Credit Allocation as described in section 6.2.3.3 of this report, the Rule Change Panel made several changes to the Amending Rules, as outlined below⁴⁹.

To restructure sections 9.4 and 9.5 of the Market Rules, as outlined in section 6.2.3.3, the Rule Change Panel decided to:

- renumber clauses 9.4.4 (to clause 9.4.5), 9.4.13 (to clause 9.4.14) and 9.4.14 (to clause 9.4.18);
- delete existing and new proposed clauses 9.4.5, 9.4.6, 9.4.9, 9.4.12, and 9.5.3; and delete section 9.4A (including all clauses: 9.4A.1, 9.4A.2, 9.4A.3); and
- introduce new clauses 9.4.4, 9.4.6, 9.4.9, 9.4.12, 9.4.13, 9.4.15, 9.4.16 and 9.4.17.

The Rule Change Panel decided to introduce clear timelines of one Business Day for AEMO to process Capacity Credit Allocation Submissions, Capacity Credit Allocation Acceptances, and Capacity Credit Allocation Submissions; and to notify the relevant Market Participants. Therefore, the Rule Change Panel decided to include timelines in the new proposed clauses 9.4.4, 9.4.9 and 9.4.13.

The Rule Change Panel decided to further amend clause 9.4.5 (previously the proposed new clause 9.4.4) to remove the provision that AEMO must reject a Capacity Credit Allocation Submission if it is not in the defined format because the submitted information would not be a Capacity Credit Allocation Submission and AEMO would reject the information as invalid submission, as outlined in section 6.2.3.3 of this report.

E.5 Changes to IRCR Publication Timeline

To facilitate that the Relevant Demand for a Demand Side Programme for a Trading Month is based on the Indicative IRCR for the relevant Trading Month (instead of the IRCR), as outlined in section 6.2.4 of this report, the Rule Change Panel decided to amend the defined term Individual Reserve Capacity Requirement Contribution in the Glossary, and to amend clause 4.26.2CA.

E.6 Special Price Arrangements

To reflect that the current Market Rules only provide for one type of Special Price Arrangement that cannot be traded bilaterally, as outlined in section 6.3.1 of this report, the Rule Change Panel decided to:

- remove the defined term 'Short Term Special Price Arrangement' from the Glossary of the Market Rules and amend the definition of the defined term 'Special Price Arrangement';
- amend clauses 2.33.5, 4.21.1, 4.28.2, 4.28B.8 and 4.28C.14 and Appendix 1; delete the heading Special Price Arrangements above section 4.21; and amend the section

⁴⁸ As outlined in section 6.4.2 of this report, the Rule Change Panel has made further amendments to clauses 9.4.5 and 9.4.10 to achieve this aim.

⁴⁹ As outlined in section 6.4.2 of this report, the Rule Change Panel has made further amendments to clauses 9.4.5, 9.4.10, and 9.4.15 to achieve this aim.

heading 4.21 to refer to the defined term 'Special Price Arrangement' instead of 'Short Term Special Price Arrangement'; and

- amend clauses 4.14.1, 4.14.1A, 4.15.1, 4.20.5B, 4.29.3, 9.4.15⁵⁰ (previously the new proposed clause 9.4A.1), 9.4.16 (previously the new proposed clause 9.4A.2), 9.4.17 (previously new proposed clause 9.4A.3), 9.5.1 and 9.7.1A, to reflect that Capacity Credits covered by a Special Price Arrangement cannot be traded bilaterally and that pre-existing Special Price Arrangements are no longer possible.

E.7 Initial and Updated IRCR and Intermittent Load Requirements

To replace the concepts of initial and updated IRCR with the concept of a monthly IRCR, as outlined in section 6.3.2 of this report, the Rule Change Panel decided to:

- further amend clauses 4.1.24, 4.28.7, 4.28.8, 4.28.12; and 10.5.1, Appendix 4A, and Appendix 5;
- amend and renumber new proposed clause 4.28.11B to clause 4.28.11A (as current clause 4.28.11A is proposed to be deleted);
- delete clauses 4.1.25, 4.1.28 and 4.28.11; and
- delete new proposed clause 4.28.7B.

To clarify the timelines and the process under which Market Participants provide information to AEMO to support the calculation of the IRCR, as outlined in section 6.3.2 of this report, AEMO decided to:

- further amend clause 4.28.8 and introduce new clauses 4.28.8C and 4.28.11 to:
 - clarify that the Market Rules do not determine the form in which this information may be provided;
 - move the provision under which Market Participants can provide additional supporting information to a separate clause; and
 - clarify that Market Customers may only provide supporting information for each load once per Capacity Year and move the provision to a separate clause.

E.8 Reserve Capacity Requirement and Associated Peak Demand for the Purpose of the IRCR Calculation

To remove AEMO's discretion to apply different values for Reserve Capacity Requirement and the associated peak demand for the purpose of the IRCR calculation, as outlined in section 6.3.3 of this report, the Rule Change Panel decided to:

- amend clause 4.28.7 and Appendix 5; and
- delete clause 4.28.11A.

E.9 Minor and Administrative Changes

The Rule Change Panel decided to amend several clauses to improve clarity. These changes are explicitly explained in the comment boxes in Appendix B of the Draft Rule Change Report.

⁵⁰ As outlined in section 6.4.2 of this report, the Rule Change Panel has made further amendments to clause 9.4.15 to correctly ensure that a Market Generator cannot bilaterally allocate more Capacity Credits at any point in time than it is allowed under the Market Rules

The Rule Change Panel also decided to amend several clauses that are affected by this Rule Change Proposal and Appendix 4A, Appendix 5 and Appendix 5A to:

- correct clause references;
- correct punctuation and typographical errors;
- remove surplus spaces; and
- correct several instances where the Market Rules refer to clause when referencing a section of the Market Rules, not a clause.

Appendix F. Clarification of Amendments to Step 8 of Appendix 5

The Rule Change Panel noted on page 105 of the Draft Rule Change Report that it proposed to amend Step 8 of Appendix 5, and introduce new Steps 8A to 8D, to increase readability of the IRCR methodology and remove manifest errors and inconsistencies from the notation. In its second period submission, Synergy requested further information about the nature of the manifest errors in Step 8.

The main manifest error in Step 8 is that it requires the calculation of four values (NTDLRCR(i), TDLRCR(i), ILRCR(i) and NRR) for “each Market Customer i”. It does not make sense for NRR to be calculated for “each Market Customer i”, as its value is the same for all Market Customers and is actually determined using the sum across all Market Customers of one of the other four values (ILRCR(i)).

More generally, the calculations in Step 8 are presented in an illogical and confusing order. For example, it is unclear why four of the calculations are listed at the start of the step while the remainder are contained within the list of variable definitions starting with “where” (where-list); or why the calculations do not appear in the order in which they need to be performed. The amendments are intended to replace Step 8 with a series of steps that present the calculations in the order they should be performed and which do not require any calculation to be performed more often than is necessary.

The Rule Change Panel notes that the changes outlined above do not alter the IRCR calculations currently performed by AEMO. The current calculation under Step 8 of Appendix 5 will be transferred into the new Steps 8 to 8D as follows.

- New Step 8 is a replication of line 3 of the current Step 8. This step is performed for each Market Customer (note that in the current Step 8 ILRCR(i) is assigned a name in the fourth where-list sub-clause, but this name is not used anywhere).
- New Step 8A calculates NRR (which is currently defined in line 4 of Step 8, with input RR defined in the sixth where-list sub-clause) and NTDL_Ratio (which is currently defined in the first where-list sub-clause, with input FL defined in the seventh where-list sub-clause). This step is performed once, and uses the outputs of the new Step 8 as inputs. Note that under the Amending Rules RR and FL are determined in Step 1, but their practical meaning has not altered.
- New Step 8B is a replication of line 1 of the current Step 8 (the calculation of NTDLRCR(i)). This step is performed for each Market Customer. Note this step uses an output of new Step 8A (NTDL_Ratio) as an input.
- New Step 8C calculates the TDL_Ratio, which is currently defined in the second where-list sub-clause, with inputs defined in the fifth and eighth where-list sub-clauses. This step is performed once, and uses the outputs of new Step 8B as inputs. The definitions of the inputs MTDL(v) and DSM(i) have also been moved to this new Step 8C in the Amending Rules.
- New Step 8D is a replication of line 2 of the current Step 8. This step is performed for each Market Customer. Note that this step uses the output of new Step 8C (TDL_Ratio) as an input.

The Rule Change Panel notes that the actual calculations are unchanged, except that:

- the subscript j has been replaced with i in the calculation of TDL_Ratio; and
- the variable name TDLn(V*) has been changed to TDLn(v*) for consistency with other steps of the Appendix.

Appendix G. Further Amendments to the Proposed Amending Rules

The Rule Change Panel made some amendments to the proposed Amending Rules following the second and further submission periods. These changes are as follows (~~deleted text~~, added text):

...

1.256. Transitional calculation of Individual Reserve Capacity Requirements and the Capacity Credit Allocation Process

1.256.1. In this section 1.256:

New Rules: Means the Amending Rules made by the Prudential Exposure Final Rule Change Report (other than the Amending Rule with respect to this section 1.256).

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 (RC_2017_06).

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).

Rule Change Commencement Month: Means the Trading Month in which the Rule Change Commencement Day falls.

1.256.2. 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 Month and subsequent Trading Months, 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 Indicative Individual Reserve Capacity Requirements under clause 4.1.23C; and
- (b) Capacity Credit Allocations under sections 9.4 and 9.5.

1.26.3. Prior to the Rule Change Commencement Day, notwithstanding that the Pre Amended Rules continue to apply, each Rule Participant may perform any of the discretionary actions that the Rule Participant is permitted to perform under the

Post-Amended Rules, in relation to the Rule Change Commencement Month and subsequent Trading Months, that, if the Post-Amended Rules were in force, the Rule Participant would be permitted to perform under the Post-Amended Rules.

~~1.25.3. AEMO must determine and publish the 12 Peak SWIS Trading Intervals for the Hot Season preceding the Rule Change Commencement Date in accordance with clause 4.1.23A of the Post-Amended Rules.~~

1.26.4 AEMO must determine and publish the 12 Peak SWIS Trading Intervals for each Hot Season for which the 12 Peak SWIS Trading Intervals will be required for the determination of Individual Reserve Capacity Requirements (including the assessment of Non-Temperature Dependent Loads) under the Post-Amended Rules by the time that is the later of:

- (a) five Business Days after the commencement of this section 1.26; and
- (b) the time specified in clause 4.1.23A of the Post-Amended Rules for the relevant Hot Season.

~~1.256.4.5~~ AEMO must determine and publish the 4 Peak SWIS Trading Intervals for each Trading Month for which the 4 Peak SWIS Trading Intervals will be required for the determination of Individual Reserve Capacity Requirements (including the assessment of Non-Temperature Dependent Loads) under the Post-Amended Rules by the time that is the later of:

- (a) five Business Days after the commencement of this section 1.256; and
- (b) the time specified in clause 4.1.23B of the Post-Amended Rules for the relevant Trading Month.

~~1.256.5.6~~ AEMO must, as soon as practicable, publish an updated settlement cycle timeline for the Financial Year in which the Post-Amended Rules come into effect that meets the requirements under clause 9.16.2 of the Post-Amended Rules for the Trading Months in the Financial Year that will be settled under the Post-Amended Rules.

~~1.256.6.7~~ If before the Rule Change Commencement Day, notwithstanding that the Pre-Amended Rules continue to apply, a Rule Participant performs an obligation under the Post-Amended Rules under clause 1.256.2, then to the extent that the obligation is performed, the Rule Participant is not required to perform any equivalent obligation under the Pre-Amended Rules to the extent that these obligations relate to the Rule Change Commencement Month or subsequent Trading Months.

~~1.256.7.8~~ If before the Rule Change Commencement Day, notwithstanding that the Pre-Amended Rules continue to apply, a Rule Participant is required to perform an obligation that relates to the Rule Change Commencement Month or subsequent Trading Months that it will not be required to perform under the Post-Amended Rules, the Rule Participant is not required to perform the obligation to the extent that it relates to the Rule Change Commencement Month or subsequent Trading

Months and to the extent that the obligation will not apply under the Post-Amended Rules.

1.256.8-9. From the Rule Change Commencement Day, notwithstanding that the Post-Amended Rules apply:

- (a) each Rule Participant must perform all obligations imposed on that Rule Participant under the Pre-Amended Rules, arising in relation to each Trading Month up to but excluding the Rule Change Commencement Month, that, if the Pre-Amended Rules were in force, the Rule Participant would have been required to perform under the Pre-Amended Rules; and
- (b) if the Post-Amended Rules require recalculation of the Individual Reserve Capacity Requirements for a Trading Month prior to the Rule Change Commencement Month, then the Post-Amended Rules do not apply to the extent that it would recalculate the Individual Reserve Capacity Requirements for that Trading Month.

1.26.10. From the Rule Change Commencement Day, notwithstanding that the Post-Amended Rules apply, each Rule Participant may perform any of the discretionary actions that the Rule Participant is permitted to perform under the Pre-Amended Rules, in relation to each Trading Month up to but excluding the Rule Change Commencement Month, that, if the Pre-Amended Rules were in force, the Rule Participant would have been permitted to perform under the Pre-Amended Rules.

...

2.31.13. AEMO may only reject an application if:

...

- (j) in the case of an application to register a Facility, the relevant Metering Data Agent informs AEMO that the facility is not registered in its Meter Registry or that the Meter Registry information is not consistent with the information in the application to register the facility;
- (k) in the case of an application to de-register a Facility, the Market Participant holds Capacity Credits for the Facility; or
- (l) in the case of an application to transfer a Facility ~~transfer~~, the transfer of the Facility would result in the number of Capacity Credits allocated for a Trading Month by the Market Generator transferring the Facility exceeding the number of Capacity Credits held for that Trading Month by the Market Generator that are allowed-able to be traded bilaterally under the Market Rules clause 4.14.9.

...

4.25.4C. Upon receiving an application under clause 4.25.4A, AEMO, must, subject to clause 4.25.4CA, ~~at its sole discretion~~:

- (a) assess the application and any supporting documentation;
- (b) within 10 Business Days of receiving the application inform the Market Participant of its decision whether to reduce the Capacity Credits and the reasons for its decision; and
- (c) if applicable and in AEMO's sole discretion, reduce the amount of Capacity Credits held by the Market Participant in respect of the Facility to which the application relates.

4.25.4CA. AEMO must not approve an application received under clause 4.25.4A if the reduction of Capacity Credits would result in the number of Capacity Credits allocated by the relevant Market Generator in Capacity Credit Allocations for a Trading Month exceeding the number of Capacity Credits held for that Trading Month by the Market Generator that are allowed-able to be traded bilaterally under the Market Rules clause 4.14.9.

...

4.26.2CA. The Relevant Demand of a Demand Side Programme for a Trading Day d in a Capacity Year is the lesser of: of—

- (a) a value determined for the Demand Side Programme using the methodology set out in Appendix 10; ~~or~~ and
- (b) the sum of Individual Reserve Capacity Requirement Contributions of the Associated Loads of the Demand Side Programme for the Trading Month in which Trading Day d falls.

...

4.28.1. AEMO must separate the total costs of Capacity Credits acquired by it for a Trading Month, including Capacity Credits covered by Special Price Arrangements, into the following two ~~sets:sets—~~

- (a) the cost of acquiring enough Capacity Credits to ensure, to the extent possible given the number of Capacity Credits AEMO has acquired, that the lesser ~~of:of—~~
 - i. the Reserve Capacity Requirement applicable to that Trading Month; and
 - ii. total Capacity Credits assigned to Facilities minus the total DSM Capacity Credits,

is just covered after allowing for Capacity Credits traded bilaterally (as defined in clause 4.14.2 and subject to clause 4.28.2(b)) in that Trading Month; and

- (b) the cost of other Capacity Credits acquired but not allocated to the set referred to in clause 4.28.1(a),

determined on the basis that the Capacity Credits acquired by AEMO are allocated to the set referred to in clause 4.28.1(a) in order of decreasing cost per Capacity Credit, other than DSM Capacity Credits, until the capacity requirements referred to in clause 4.28.1(a) are met, with the remaining Capacity Credits acquired by AEMO being allocated to the set referred to in clause 4.28.1(b).

4.28.2. For the purposes of clause ~~4.28.1:4.28.1—~~

- (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) any Capacity Credits that have been allocated to a Market Customer in excess of that Market Customer's Individual Reserve Capacity Requirement ~~will~~ must be:
 - i. deemed to be Capacity Credits acquired by AEMO from the Market Customer; and
 - ii. not counted as Capacity Credits traded bilaterally;
- (c) the cost of a Capacity Credit acquired by AEMO which is covered by a 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~~

- (cB) the cost of a Capacity Credit deemed to be acquired by AEMO from a Market Customer under clause 4.28.2(b)(i) is the Monthly Reserve Capacity Price determined in accordance with clause 4.29.1; 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.

...

4.28B.8. Any Capacity Credit issued by AEMO under this section 4.28B:

- (a) is, for the purpose of settlement, to be treated as if it were traded bilaterally in accordance with section 4.14 (as defined in clause 4.14.2); and
- (b) is not eligible to have a ~~Long Term Special Arrangement or~~ Special Price Arrangement associated with it.

...

4.29.3. AEMO must determine the following information in time for settlement of Trading Month m:

- (a) the Monthly Reserve Capacity Price applying during that Trading Month;
- (b) the Targeted Reserve Capacity Cost for that Trading Month as defined in clause 4.28.3;
- (c) the Shared Reserve Capacity Cost for that Trading Month as defined in clause 4.28.4;
- (d) subject to clause 4.29.4, for each Market Participant p and for Trading Month ~~m:m~~
 - i. the quantity of Capacity Credits (including Capacity Credits from Facilities subject to Network Control Service Contracts) acquired by AEMO which are ~~not:not~~
 - 1. DSM Capacity Credits; or
 - 2. covered by a Special Price Arrangement;
 - ii. [Blank]
 - iii. the total quantity of Capacity Credits covered by Special Price Arrangements;
 - iv. the quantity of Capacity Credits (other than DSM Capacity Credits) traded bilaterally (as defined in clause 4.14.2), including Capacity Credits from Facilities subject to Network Control Service Contracts to which clause 4.20.1(d)(iii) does apply;
 - ivA. the quantity of DSM Capacity Credits;
 - v. the Individual Reserve Capacity Requirement for each Market Customer for that Trading Month;

- vi. the total Capacity Cost Refund to be paid by the Market Participant to AEMO for all Trading Intervals in Trading Month m;
 - vii. the total Participant Capacity Rebate to be paid to the Market Participant by AEMO for all Trading Intervals in Trading Month m; and
 - viii. the Tranche 2 DSM Dispatch Payments to be made to the Market Participant;
- (dA) for each Market Participant, the Intermittent Load Refund to be paid by the Market Participant to AEMO for each of its Intermittent Loads; and
- (e) for each Supplementary Capacity Contract:
- i. the net payment to be made by AEMO under that contract for the Trading Month;
 - ii. to whom the payment is to be made; and
 - iii. how the payment is to be made if the party identified in [clause 4.29.3 \(e\)\(ii\)](#) is not a Market Participant.

...

9.3.6. ~~Market Participants may provide the Capacity Credit Allocation Submissions or Capacity Credit Allocation Acceptances described in section 9.4 to AEMO.~~[\[Blank\]](#)

...

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

- (a) the sum of the Capacity Credits:
 - i. proposed to be allocated in the Capacity Credit Allocation Submission;
 - ii. proposed to be allocated in any other Capacity Credit Allocation Submission for the Market Generator for the [relevant](#) Trading Month that is approved by AEMO but not yet accepted by the relevant Market Customer (excluding any Capacity Credit Allocation Submissions withdrawn under [clause 9.4.12](#)); ~~or and~~
 - iii. in any approved Capacity Credit Allocations for the Market Generator for the [relevant](#) Trading Month (excluding any Capacity Credit Allocations reversed under [clause 9.4.14](#) and accounting for any reductions under [clauses 9.4.16](#) or [9.4.17](#)),

exceeds the number of Capacity Credits that are ~~allowed able~~ to be traded bilaterally by the Market Generator under ~~the Market Rules clause 4.14.9~~ for the Trading Month; or
- (b) ~~if~~ AEMO reasonably considers that the Trading Margin of the ~~submitting~~ Market Generator [specified as the provider of the Capacity Credits](#) is likely

to be negative after allocating the Capacity Credits as outlined in the Capacity Credit Allocation Submission.

...

9.4.10. AEMO must reject a Capacity Credit Allocation Acceptance if:

- (a) the Capacity Credit Allocation Submission has been withdrawn under clause 9.4.12;
- (b) the sum of the Capacity Credits:
 - i. proposed to be allocated in the relevant Capacity Credit Allocation Submission; and
 - ii. in any approved Capacity Credit Allocations for the Market Generator for the relevant Trading Month (excluding any Capacity Credit Allocations reversed under clause 9.4.14 and accounting for any reductions under clauses 9.4.16 or 9.4.17),

exceeds the number of Capacity Credits that are ~~allowed~~ able to be traded bilaterally by the Market Generator under the Market Rules ~~clause 4.14.9~~ for the Trading Month; or
- (c) 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.

...

9.4.14. AEMO must reverse a Capacity Credit Allocation if both of the following apply:

- (a) AEMO receives a request from the Market Generator and Market Customer involved before the date and time published by AEMO in accordance with clause 9.16.2(b)(ii) for the relevant Trading Month; 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.

9.4.15. If the termination of a Capacity Credit results in the number of Capacity Credits allocated by a Market Generator in Capacity Credit Allocations for a Trading Month exceeding the number of Capacity Credits held for that Trading Month by the Market Generator that are ~~allowed~~ able to be traded bilaterally under the Market Rules ~~clause 4.14.9~~, then AEMO must notify the Market Generator within one Business Day after the termination.

...

9.7.1A. For the purposes of clause 9.7.1, Capacity_Provider_Payment(p,m) for Market Participant p for Trading Month m is—

$$\begin{aligned}
\text{Capacity_Provider_Payment}(p,m) = & \text{Participant_Capacity_Rebate}(p,m) \\
& + \text{Non_Allocated_Gen_Capacity_Payments}(p,m) \\
& + \text{SPA_Payments}(p,m) \\
& - \text{Intermittent_Load_Refund}(p,m) \\
& + \text{Supplementary_Capacity_Payment}(p,m) \\
& + \text{DSM_Capacity_Payments}(p,m) \\
& + \text{Tranche_2_DSM_Dispatch_Payments}(p,m) \\
& - \text{Capacity_Cost_Refund}(p,m) \\
& + \text{Over_Allocation_Payment}(p,m)
\end{aligned}$$

~~where:Where—~~

$\text{Participant_Capacity_Rebate}(p,m)$ 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);

$$\begin{aligned}
\text{Non_Allocated_Gen_Capacity_Payments}(p,m) = \\
\text{Monthly_Reserve_Capacity_Price}(m) \times (\text{CC_NSPA}(p,m) - \\
\text{CC_ANSPA}(p,m))
\end{aligned}$$

$$\begin{aligned}
\text{SPA_Payments}(p,m) = \\
\text{Sum}(a \in A, \text{Monthly_Special_Price}(p,m,a) \times \\
\text{CC_SPA}(p,m,a))
\end{aligned}$$

$\text{Intermittent_Load_Refund}(p,m)$ 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;

$\text{Supplementary_Capacity_Payment}(p,m)$ 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);

$$\begin{aligned}
\text{DSM_Capacity_Payments}(p,m) = \\
\text{DSM_Capacity_Credits}(p,m) \times \text{Monthly_DSM_Reserve_Capacity_Price}(m)
\end{aligned}$$

$\text{Tranche_2_DSM_Dispatch_Payments}(p,m)$ are the Tranche 2 DSM Dispatch Payments for Market Participant p for Trading Month m ;

$\text{Capacity_Cost_Refund}(p,m)$ 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);

$$\begin{aligned}
\text{Over_Allocation_Payment}(p,m) = \\
\max(0, \text{Allocated_Capacity_Credits}(p,m) - \text{IRCR}(p,m)) \times \\
\text{Monthly_Reserve_Capacity_Price}(m);
\end{aligned}$$

$\text{Monthly_Reserve_Capacity_Price}(m)$ is the Monthly Reserve Capacity Price which applies for Trading Month m 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;

CC_ANSPA(p,m) is the number of Capacity Credits held by Market Participant p in Trading Month m that are allocated to other Market Participants;

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;

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 Month m;

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;

DSM_Capacity_Credits(p,m) is the number of DSM Capacity Credits held by Market Participant p in Trading Month m, as determined under clause 4.29.3(d)(ivA);

Monthly_DSM_Reserve_Capacity_Price(m) is the DSM Reserve Capacity Price which applies for Trading Month m divided by 12;

Allocated_Capacity_Credits(p,m) is the number of Capacity Credits allocated to Market Participant p in Trading Month m in accordance with sections 9.4 and 9.5; and

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

9.7.1B. For the purposes of clause 9.7.1, Capacity_Purchaser_Payment(p,m) for Market Participant p for Trading Month m is—

$$\begin{aligned} \text{Capacity_Purchaser_Payment}(p,m) &= \text{Targeted_Reserve_Capacity_Cost}(p,m) \\ &\quad + \text{Shared_Reserve_Capacity_Cost}(p,m) \\ &\quad - \text{LF_Capacity_Cost}(p,m) \end{aligned}$$

~~where:~~ ~~Where—~~

$$\begin{aligned} \text{Targeted_Reserve_Capacity_Cost}(p,m) &= \\ &\quad \text{Targeted_Reserve_Capacity_Cost}(m) \times \text{Shortfall_Share}(p,m) \end{aligned}$$

$$\begin{aligned} \text{Shared_Reserve_Capacity_Cost}(p,m) &= \\ &\quad \text{Shared_Reserve_Capacity_Cost}(m) \times \text{Capacity_Share}(p,m) \end{aligned}$$

$$\begin{aligned} \text{LF_Capacity_Cost}(p,m) &= \\ &\quad \text{LF_Capacity_Cost}(m) \times \text{Capacity_Share}(p,m) \end{aligned}$$

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);

$$\begin{aligned} \text{Shortfall_Share}(p,m) &= \\ &\quad (\max(0, \text{IRCR}(p,m) - \text{Allocated_Capacity_Credits}(p,m))) / \\ &\quad \text{Sum}(p \in P, (\max(0, \text{IRCR}(p,m) - \text{Allocated_Capacity_Credits}(p,m)))) \end{aligned}$$

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

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

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;

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

Allocated_Capacity_Credits(p,m) is the number of Capacity Credits allocated to Market Participant p in Trading Month m in accordance with sections 9.4 and 9.5.

...

- 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 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;
- ix. the following ratios calculated by AEMO when it determines the Indicative Individual Reserve Capacity Requirements or the Individual Reserve Capacity Requirements for a Trading Month, or recalculates the Individual Reserve Capacity Requirements for a Trading Month as required by clause 4.28.11A:
 1. NTDL_Ratio as calculated in accordance with ~~Appendix 5, Step 8A~~ Step 8A of Appendix 5;
 2. TDL_Ratio as calculated in accordance with ~~Appendix 5, Step 8C~~ Step 8C of Appendix 5; and
 3. Total_Ratio as calculated in accordance with ~~Appendix 5, Step 40~~ Step 10 of Appendix 5; and

...

...

Appendix 5: Individual Reserve Capacity Requirements

This Appendix presents the method that must be used by AEMO to determine, for a Trading Month n:

- Individual Reserve Capacity Requirement Contributions as required for the determination of Relevant Demands under clause 4.26.2CA;
- Indicative Individual Reserve Capacity Requirements as required under clause 4.28.6;
- Individual Reserve Capacity Requirements as required under clause 4.28.7; and
- revised Individual Reserve Capacity Requirements as required under clause 4.28.11A.

AEMO must perform Steps 1 to 10A to determine the Indicative Individual Reserve Capacity Requirements, Individual Reserve Capacity Requirements or revised Individual Reserve Capacity Requirements for Trading Month n.

AEMO must perform Step 11 as required to determine the Individual Reserve Capacity Requirement Contribution of an individual metered Associated Load for Trading Month n, using as input the relevant values calculated by AEMO when it determined the Indicative Individual Reserve Capacity Requirements for Trading Month n.

For the purpose of this Appendix:

- 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 12 Peak SWIS Trading Intervals to be used in the calculations are the 12 Peak SWIS Trading Intervals determined and published by AEMO under clause 4.1.23A for the Hot Season preceding the start of the Capacity Year in which Trading Month n falls (the “preceding Hot Season”).
- The 4 Peak SWIS Trading Intervals for a Trading Month to be used in the calculations are the 4 Peak SWIS Trading Intervals determined and published by AEMO under clause 4.1.23B for that Trading Month.

- When calculating the Indicative Individual Reserve Capacity Requirements it is assumed that all meters registered to a Market Customer on the day of calculation will remain registered to that Market Customer for the entirety of Trading Month n.

Step 1: Calculate:

$$RR = \min(RCR, CC - DSM_CC)$$

$$FL = FL_RCR \times RR / RCR$$

where:

RCR is the Reserve Capacity Requirement for the relevant Reserve Capacity Cycle

CC is the total number of Capacity Credits assigned for Trading Month n at the time of the calculation

DSM_CC is the total number of DSM Capacity Credits assigned for Trading Month n at the time of the calculation

FL_RCR is the peak demand associated with the Reserve Capacity Requirement for the relevant Reserve Capacity Cycle as specified in clause 4.6.2

Step 2: For each meter, u, measuring Non-Temperature Dependent Load that was registered with AEMO for all of the 12 Peak SWIS Trading Intervals determine NTDL(u), where:

NTDL(u) is the contribution to the system peak load of meter u during the preceding Hot Season where this contribution is double the median value of the metered consumption during the 12 Peak SWIS Trading Intervals

Step 3: For each meter, v, measuring Temperature Dependent Load that was registered with AEMO for all of the 12 Peak SWIS Trading Intervals determine TDL(v), where:

TDL(v) is the contribution to the system peak load of meter v during the preceding Hot Season where this contribution is double the median value of the metered consumption during the 12 Peak SWIS Trading Intervals

Step 4: For each Intermittent Load meter w set its Individual Intermittent Load Reserve Capacity Requirement, IILRCR(w), to equal the amount defined in accordance with Appendix 4A.

Step 5: Identify meters that were not registered with AEMO during one or more of the 12 Peak SWIS Trading Intervals but which were registered by the end of Trading Month n.

For a new meter u that measures Non-Temperature Dependent Load set NMNTR(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 $n-3$.

Step 5A:

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 , 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 divided by the number of days in Trading Month n .
- $d(v,i)$ has a value of zero if meter v measures Intermittent Load or was not registered to Market Customer i during Trading Month n , 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 divided by the number of days in Trading Month n .
- $d(w,i)$ 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 clauses 4.28.8(c) or 4.28.8A, 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:

$$TDLn(v^*) = TDL(v^*) - \text{Sum}(v \in \text{NM}, \text{NMTDCR}(v))$$

Step 8: For each Market Customer i, calculate:

$$\text{ILRCR}(i) = \text{Sum}(w, \text{ILRCR}(w) \times d(w,i))$$

Step 8A: Calculate:

$$\text{NRR} = \text{RR} - \text{Sum}(i, \text{ILRCR}(i))$$

$$\text{NTDL_Ratio} = \text{NRR} / \text{FL}$$

Step 8B: For each Market Customer i, calculate:

$$\text{NTDLRCR}(i) = \text{Sum}(u, \text{NTDL}(u) \times d(u,i)) \times \text{NTDL_Ratio}$$

Step 8C: Calculate:

$$\text{TDL_Ratio} = (\text{NRR} - \text{Sum}(i, \text{NTDLRCR}(i))) / \text{Sum}(i, \text{Sum}(v, \text{MTDL}(v) \times d(v,i)) - \text{DSM}(i))$$

where

$$\text{MTDL}(v) = \text{TDL}(v) \text{ for all } v \text{ except } v^* \text{ and}$$

$$\text{MTDL}(v) = \text{TDLn}(v^*) \text{ for } v=v^*$$

DSM(i) is the MW quantity of additional Demand Side Management demonstrated and agreed by AEMO to be available by the next Hot Season

Step 8D: For each Market Customer i, calculate:

$$\text{TDLRCR}(i) = (\text{Sum}(v, \text{MTDL}(v) \times d(v,i)) - \text{DSM}(i)) \times \text{TDL_Ratio}$$

Step 9: For each Market Customer i, calculate

$$X(i) = \text{Sum}(i, \text{ILRCR}(i) + \text{NTDLRCR}(i) + \text{TDLRCR}(i)) + \text{Sum}(u, \text{NMNTCR}(u) \times d(u,i)) + \text{Sum}(v, \text{NMTDCR}(v) \times d(v,i))$$

Step 10: Calculate:

$$\text{Total_Ratio} = \text{RR} / \text{Sum}(i, X(i))$$

Step 10A: For each Market Customer i, set the Indicative Individual Reserve Capacity Requirement or Individual Reserve Capacity Requirement, as applicable, for Trading Month n to:

$$X(i) \times \text{Total_Ratio}$$

Step 11: The Individual Reserve Capacity Requirement Contribution of an individual metered Associated Load for Trading Month n of a Capacity Year is determined as ~~follows: follows—~~

- (a) for meter u at a connection point measuring Non-Temperature Dependent Load that was registered with AEMO for all of the 12 Peak SWIS Trading Intervals equals $(NTDL(u) \times NTDL_Ratio \times Total_Ratio)$;
- (b) for meter v at a connection point measuring Temperature Dependent Load that was registered with AEMO for all of the 12 Peak SWIS Trading Intervals equals $(TDL(v) \times TDL_Ratio \times Total_Ratio)$;
- (c) for meter u at a new connection point identified in Step 5 measuring Non-Temperature Dependent Load equals $(NMNTCR(u) \times Total_Ratio)$; and
- (d) for meter v at a new connection point identified in Step 5 measuring Temperature Dependent Load equals $(NMTDCR(v) \times Total_Ratio)$.